

A Balanced Life:
205 Things I Want
My Children to
Know Before They
Move Out

Chapter One: Self Care

1. Basic Hygiene

Taking care of your physical health can help avoid illnesses, improve the way you feel and function, and protect those around you. It can protect your physical, mental, social, and financial health. Basic hygiene includes cleaning your body each day, proper toilet hygiene, brushing your teeth twice a day, washing your hands after using the restroom, after touching animals or garbage, and before preparing or eating foods, covering coughs and sneezes, brushing or combing your hair each day, trimming your nails, wearing clean and weather-appropriate clothing, and using deodorant when appropriate.

a. **Cleaning Your Body:** Your body should be cleansed at least every other day. Many people wash in the shower or bath every day. This allows oils, dead skin and hair, and other contaminants to be washed from the body. Hair should be shampooed at least twice a week and can be conditioned after. The body should be scrubbed with warm water and soap and rinsed completely. Special attention should be paid to the armpits, genitals, and anus. Girls and women should avoid soaps around the genital area as it can cause irritation. A clean towel can then be used to dry the body.

b. **Toilet Hygiene:** When using the toilet, care should be taken to avoid contact with bacteria. The toilet seat should be regularly cleaned and may be covered with a seat cover. Urine and feces should be wiped away using toilet paper and/or appropriate wipes. Waste should be flushed down the toilet. Pads and tampons should be changed as needed or every 3-4 hours, except during sleep. These items should be disposed of in a way that avoids contamination for yourself and others.

c. **Brushing Your Teeth:** Teeth should be brushed, flossed, and rinsed with mouthwash twice a day. Toothbrushes should be switched out once a month and stored in a way that avoids contamination with other substances. To brush the teeth, add water and a pea-sized amount of toothpaste to the toothbrush and begin to scrub the teeth and gums in a circular pattern. Hold the toothbrush at a 45° angle to the teeth. Continue until the front, back, and ends of the teeth have been scrubbed. Rinse with water. Carefully floss between each tooth, using

gentle movements that avoid damage to the gums. Finally, rinse with a mouthwash according to the directions on the package.

d. **Washing Your Hands:** Hands should be washed after using the restroom, before preparing or eating foods, after touching animals, after touching garbage, or any other time they may have been contaminated. To wash your hands, use clean water. Wet your hands and apply soap to hands and wrists. Scrub all surfaces (fingernails, tips of fingers, between fingers, hands, and wrists) for at least twenty seconds. Rinse your hands under clean water. Dry your hands with a clean towel, leaving the water running. Use the towel to turn off the faucet and open the door.

e. **Covering Coughs and Sneezes:** Coughing and sneezing are some of the ways the body works to expel harmful bacteria, viruses, or items. However, this means that droplets are contaminated and can harm others. Covering coughs and sneezes is an appropriate way to minimize the exposure of others to your bodily fluids and/or illnesses. To cover a cough or sneeze, place the inner part of your elbow over the nose and mouth. Alternatively, you can use a tissue. Cover until the episode is over. As soon as possible, wash and/or sanitize your hands and any area that may have been contaminated.

f. **Brushing or Combing Hair:** Hair should be brushed or combed every day to avoid tangles and remove dead skin and hair. First, run your fingers through the hair, working to remove large tangles. Then, using a brush or comb, begin at the ends of the hair. Remove tangles by brushing downwards, working upwards as tangles are removed from the ends. Continue until hair is no longer knotted and is all laying in the same direction. You may need to use detangling spray for tough knots. Hair can then be styled as needed. Additionally, hair should be cut every 6-8 weeks.

g. **Trimming Nails:** Finger and toe nail care is important as the nails continue to grow your entire life. Long nails are more prone to breakage, storage of bacteria, and injuries such as ingrown nails or hangnails. Trim the nails when they are longer than you'd like, about every two weeks. First, soften the nails using warm water. After a bath or shower (or a soak in warm water), gather the proper tools. Nails may be trimmed with a nail clipper or nail scissors. These tools should be regularly disinfected to prevent infection. Cut each nail almost straight across at

the desired length. Nails should only be cut on the free edge, or white, crescent-shaped part. Use an emery board to file away any sharp edges and to shape the nail by curving the edges slightly. When each nail has been trimmed, moisturize the nail with hand lotion or oil to prevent split nails.

h. Clothing: Clothing is an expression of who you are. It is one of the first things others notice about you. It is also something that goes everywhere you go. No matter your style, clothing should be washed regularly and worn to match the weather and/or activities of the day. Items such as shirts, tights, and underwear should be laundered after each wear. Outerwear, such as coats and jackets, should be washed every three months or when they become soiled. Items like pajamas, bras, slips, camisoles, dresses, skirts, sweaters, jeans, and dress pants should be laundered after three wears. Before dressing for the day, consider the weather and activities you will be participating in. Wear clothing that will appropriately account for cold, hot, rainy or snowy weather as needed. Adjust clothing for each activity. For example, office work requires more formal clothing than yard work, which requires protection from the sun and elements. Finally, carefully consider the shoes you will require. Shoes should be protective enough to ensure your safety during each activity, yet flexible enough to allow you to do it.

i. Deodorant: Deodorant and antiperspirant can help our bodies to stay clean and avoid excessive sweating. It reduces odor, especially on hot days or during intense exercise. Deodorant comes in many forms: spray, solid bar, liquid roller. Deodorant should be applied daily to the underarms and any other problem area on the body. The best time to apply it is after a shower and just before bed. Underarms should be clean and dry during application. Additional applications may be needed before a work out, in intense heat, or before stressful situations.

*Lesson Assignment: After reading the lesson, review your own health hygiene habits. List areas where you can improve technique or routine and practice those new habits over the next few weeks, creating a routine.

2. Common Health Ailments and Treatments

Though many medical ailments require medical attention, some common issues can be treated at home with heat or cold packs, ice, rest, hydration, and/or over the counter medications. Colds, for example, are a common illness caused by a

virus. This means that medication likely won't end the illness, but it can treat symptoms until your immune system takes care of the virus. Treatment for colds includes rest, hydration, lozenges for a sore throat, saline drops or antihistamines for stuffiness, and acetaminophen for pain and/or fever. Be sure that your cold medication does not contain acetaminophen before taking a medication like Tylenol as an overdose is possible. Additionally, you may run a humidifier in the room you are resting in. These treatments also can help with flu symptoms.

Sore muscles are another common ailment. These can be caused by overexertion, a build-up of lactic acid, or as a symptom of illness. A warm bath or shower can help alleviate symptoms. Additionally, a heat pad or ice pack can be applied to the affected area. Stretching, massage, and rest can also help.

Fatigue is a common part of life. However, too little rest can affect physical and mental health long-term. To ensure you are getting enough sleep, follow a schedule going to bed at the same time each night and allowing 8 hours of scheduled sleeping time. Finish large meals long before bedtime and avoid caffeine and alcohol as it nears. Ensure that your sleeping area is dark, cool, and quiet. Do not turn on screens for three hours before bed. Increase physical activity during the day and work to manage stress to allow your mind and body time to rest.

Headaches are another common ailment that can often be treated at home. Headaches can be caused by several different factors and understanding the cause can help with treatment. Primary headaches may be caused by tension, alcohol or nicotine use, certain food ingredients, poor posture, changes in sleep, exercise, hunger, or strain from coughing or sneezing. Often these can be treated by finding and eliminating the cause. Rest in a quiet, dark area, and over the counter medications can also help. Secondary headaches are caused by another condition (e.g. dehydration, sinus, addiction). Treatment for this includes treating the symptoms they are caused by and, sometimes, OTC medications.

Finally, dehydration is a serious condition in which the body does not have enough fluids. It can be avoided by drinking the right amount of the right fluids throughout the day. Water and electrolytes are the best fluids for your body. Signs of dehydration include irritability, confusion, dizziness, thirst, cramping, flushed skin, and not urinating enough. If you suspect dehydration, move to a

cool, shaded or indoor area. Increase your intake of liquids until you begin to feel better. Be cautious that you do not drink too much water, as this can cause issues as well. Though many ailments can be easily treated at home, it is important to visit a doctor if symptoms do not go away, you are in extreme pain, you lose consciousness, you have a high-grade fever (104° or higher), a cough lasting more than 2 weeks, persistent vomiting, or symptoms that don't go away after home treatment. Healthcare providers can answer questions and aid in treatment, as well.

*Lesson Assignment: Using your knowledge of symptoms, look for signs of these common ailments in yourself and/or family members this week. If you notice an ailment, help with treatment. Be sure to ask an adult before taking or giving out medications.

3. Dealing with Stress in a Healthy Way

Stress is a normal part of life and it helps us to be motivated to accomplish tasks and become better. However, left unmanaged, stress can become too much or a chronic issue leading to physical and mental issues. There are many things that can induce stress: home life, school work, large events, lack of sleep, work issues, relationships, bullying, or changes in your life. Stress can cause irritability, changes in behavior, trouble sleeping, a feeling of being overwhelmed, changes to eating habits, a weaker immune system, and physical illness. To manage stress take steps to get enough sleep (but not more than your body needs), exercise regularly, talk with adults, peers, or medical professionals about what is worrying you, take time to have fun, schedule regular quiet times during the day, spend time outside, and take time to express yourself (e.g. writing, art, crafts, building projects, etc.). Finally learn to be mindful (e.g. prayer, meditation, reflection) of your life. Reflect on your goals, the obstacles in your way, and ways to solve problems. Take time to review your progress and celebrate accomplishments you've already completed. Additionally, ask for help if you need it. At times, stress can get to be too much and getting help with an issue from a trusted adult or peer can ease it. If stress is constant, long-term, or starts to affect how you function in life, talk to a medical provider.

*Lesson Assignment: Take time today to do something you enjoy. Before you begin, record your feelings in a journal. Complete the activity and evaluate and

record your feelings again. Note the differences in how you feel. Then, make a stress-management plan, listing ways you can control stress levels on a regular basis.

4. Persistence and Resilience

Problem-solving is one of the most frustrating, yet necessary, skills in life. We all face problems each day and the way in which we face them can greatly affect our own health as well as our success in everyday tasks. Persistence and resilience are two tools that can help use to solve problems that we can control and deal with those things we cannot control.

Persistence is simply trying again and again until the problem is solved. Allowing ourselves to struggle at a task and keep working to find solutions increases our ability to adapt and find an answer. Breaking down the task into smaller, more manageable tasks may help. For example, if you are feeling overwhelmed about cleaning the whole house, start with just one room. This helps you accomplish a small task that works towards accomplishing the whole. Be patient with yourself as you work to find an answer and look at the things you've already done. Trying again and again when a task is difficult is one way we learn and grow.

However, there are times when we face something we can't control. Weather, life events, choices of others, illness, and death are things that are out of our ability to control. These situations require patience, courage, and time to get through. Resilience requires close attention to and processing of emotions, honesty, and reflection. It means dealing with things that you'd rather not deal with. However, facing your emotions and the fact that certain events are out of your control can allow you to focus on what you can control: your reaction.

Positive self-talk, outside support, reflection, and faith help build resilience.

When working through a tough situation, it is important to allow yourself space to experience your emotions and reflect upon what you will do about them. At times, this will mean you need rest or time away from certain things. Other times may require talking to a friend or family member, comfort items or food, physical actions to improve the situation, or finding ways to learn from the experience. Sometimes, you must simply have the courage and faith to hope for a better future.

*Lesson Assignment: Fold a paper in half. On one side, list the things you are currently worried about that are under your control (e.g. messy room, unfinished project, disagreement with a friend, big test). On the other side, list things you are worried about that you cannot control (e.g. actions of other people, the weather ruining a big event, where you live). Beside each worry, list something you can do to help get through it. For those you can control, list the next step in dealing with the problem (e.g. clean off your bed, finished a page of homework, talk to your friend, study). For those you can't control, list an emotion you feel and how to handle that emotion (e.g. anger at being treated unfairly- talk with them/get help/avoid contact, worry about weather-have a backup plan, don't like where you live- talk with a parent about improving the situation). Then, put your plans into place, working to solve what you can and build resilience through those you cannot.

5. Recognizing Mental Illness

Though many difficult situations and illnesses can be managed at home, there are some that require outside treatment. A broken arm, for example, will need a doctor to set, cast, and monitor healing. Likewise, some mental health conditions require the help of a doctor to manage and/or overcome. Two common illnesses are depression and anxiety.

Depression is an overwhelming or persistent feeling of sadness or hopelessness. Symptoms can include a feeling of worthlessness, exhaustion, guilt, loneliness, isolation, loss of interest in things you once loved doing, sleep problems, changes in mood, changes in appetite, emotional outbursts, and suicidal thoughts. Though some of these symptoms are common parts of everyday life, persistent or extreme symptoms can be a sign that you have depression. Depression can be caused by many things, including medical conditions, certain medications, or trauma. If depression is suspected, you should contact your medical professional to discuss treatment options.

Anxiety is characterized by a feeling of worry or impending doom. Like depression, anxiety exhibits these symptoms for a long period of time or in intense amounts. Symptoms include feeling nervous or tense, increased heart and/or breathing rate, sweating, fatigue, trouble concentrating and/or sleeping, changes in mood, and avoidance of the things that trigger your worries. Anxiety

can be caused by a medical condition, trauma, certain situations, substance abuse, and certain medications. If these symptoms make it difficult to live a normal life, are intense, or last for an extended time period, contact a medical provider to seek treatment.

*Lesson Assignment: Take time today to reflect on your mental health. Assess yourself for symptoms of depression and anxiety. Remember, it is normal to feel these things every once in a while. However, if these symptoms have been persistent or feel overwhelming, ask a trusted adult or medical professional for help. Additionally, make mental health improvement goal. This may include getting more sleep, spending more time outside, exercising, getting medical help, or talking with friends more. Work to implement this goal. After a month, assess how this goal has changed your mental health.

6. Time Management

Every day has exactly 24 hours in it. No one gets more time in a day than anyone else. However, we all use that 24 hours differently. Some people complete several tasks and are productive all day. Others don't get much done and are stressed and overwhelmed all day. Some get enough sleep and eat healthy foods. Others don't sleep much or take care of their bodies. Most people fall somewhere in between the two extremes: they work hard part of the day and rest during the other parts. Depending on your workload, your hobbies, the needs of your body, and your priorities (or the order of importance you place on things), your time will be spent in different ways.

Most people need about 8 hours of sleep. Planning for 8 hours of restful time allows your body the best chance at getting the needed amount of sleep. Managing a sleep schedule is best done by deciding what time your body needs to go to bed and/or when you need to wake up. If you need to be at school at 7:30 am, for example, you will need to plan to go to bed about 9 hours prior, or at 10:30 pm. This allows your body 8 hours of rest and one hour to get ready and drive to school. Depending on your circumstances (if it takes you longer to get ready, or you only have a short distance to drive) this can be altered.

That leaves you with 15 hours left in the day. What you do during this time will depend on your schedule and demands on your time. You may need to attend school for 6 hours, take time to prepare and eat meals for 3 hours, work at your

job for 4 hours, attend club meetings, practice instruments, participate in extracurricular activities, exercise, or finish a project you are working on. You may also need additional resting time, such as watching a movie, an activity with friends, quiet time, or time for medical treatments. No matter what your activities throughout the day, you will need to divide the 15 hours left in order to do what you need to do. This is called time management.

Time management is a technique that allows you to use your time efficiently. It helps you to prioritize tasks and complete the most important tasks first. It also ensures you have time planned for each task.

First, make a list of all the activities you need to or want to complete tomorrow. Use a red marker to list the most important tasks to you, a yellow marker for less important or urgent tasks, and a green marker for tasks that you want to complete but may not be necessary. Consider that some tasks (such as sleeping, eating, showering, and homework) have to be done while others (such as playing video games, reading a novel, or doing a craft) may not need to be done.

Consider deadlines, what will happen if a certain task isn't completed today, and how much it will benefit you to complete the task now. It is important to consider your health, both mental and physical, when working to prioritize tasks. Some days, you may have a large assignment that is due the next day and must be finished. Other days, the assignment may take a backseat to the intense stress and you may need to schedule time for a break or work on only one small part of the project instead of the entire thing.

Next, list an estimated time to complete each task. How long does it usually take you to finish this thing? Doing the dishes may take 20 minutes, cleaning your room may take an hour, your school assignment may take 4 hours, cooking and eating dinner may take an hour.

Combine these time estimates, as well as your priority rankings, to create a schedule for tomorrow using the table on the next page. List your priority tasks (red) first, allowing enough time to complete each one. Scheduled tasks, such as classes or activities, will need to be placed in their scheduled time and worked around. Necessary tasks, such as sleeping, eating, and hygiene should be listed as well. After listing your priority tasks, add your yellow tasks into open time slots.

Finally, add your green tasks if you can fit them in. For each task, list an estimated completion time by adding your estimated time to the starting time.

Throughout the day tomorrow, follow your schedule as much as possible. Pay attention to the time, listing actual completion times for each activity. Some may take longer or shorter times than estimated. Noting this can help you plan better for the next day. Continue scheduling your day like this throughout the week and note changes to your productivity, mental health, and physical health. Make adjustments as needed.

Time	Task	Estimated Completion Time	Actual Completion Time
6 am			
7 am			
8 am			
9 am			
10 am			
11 am			
12 pm			
1 pm			
2 pm			
3 pm			
4 pm			
5 pm			
6 pm			
7 pm			
8 pm			
9 pm			
10 pm			
11 pm			
12 am			
1 am			
2 am			
3 am			
4 am			
5 am			

7. Making an Exercise Plan

Exercise is an important part of physical and mental health and can improve many aspects of your life. Proper exercise can help you sleep better, focus more, and give you more energy. However, many people don't get enough exercise. It is important to plan time each day to move your body. Depending on your fitness level, this may include a simple walk, a video workout, a trip to the gym, or a sport you enjoy. The important thing is to get your heart, lungs, and muscles working.

Teens need about an hour of daily exercise to stay healthy. This should be moderate to high intensity movement that increases the heart and breathing rate. However, the minimum amount of exercise a teen should get is 30 minutes at least three times a week. Any amount of exercise within that range is considered healthy. Too little exercise can lead to physical and mental health problems. However, too much exercise can, too. Straining your body can cause mental health issues, isolate you from peers, change your eating habits, and lead to strain and injury. Exercises may need to be changed or modified for fitness levels, body size, and strength/flexibility levels. Blocking out time in your schedule to exercise can help you moderate the amount of exercise you get each day.

The type of exercise you do can vary based on your abilities, goals, and success long-term. Few people continue an exercise program that they don't enjoy. Finding an activity you have fun doing can increase the likelihood that exercise will continue. Sports, martial arts, yoga, dance, weight lifting, cardio, agility, hiking, walking, jumping rope, working in a garden, or going to the park are all ways to get exercise. Depending on your goal (e.g. weight loss, endurance, flexibility, strength, cardio-health, learning a new skill, etc.) each activity may have certain benefits or faults. If you want to increase flexibility and strength, for example, yoga is an excellent choice. However, it does not provide much time for cardio. Understanding your goal can help you understand which choice is best. Over time, you may want to change your exercise routine to meet new goals. When determining ability, it is important not to push yourself too hard. You may not be able to do certain exercises completely, or even at all. Listen to your body,

your trainer, and your medical provider to assess the correct amount and type of exercise for you.

*Lesson Assignment: List a fitness goal (e.g. weight loss, endurance, flexibility, strength, cardio-health, learning a new skill, etc.) for yourself. Make it specific (e.g. I want to be able to hold a yoga pose for 5 minutes, do jumping jacks for 3 minutes, or walk about my block in less than 30 minutes). Research different exercise methods that may help you reach this goal. Then, add exercise time to your schedule from the previous lesson. Each day, work towards your goal, meeting small benchmarks as you go. Focus on progress, rather than trying to complete your goal in a single day. Continue this exercise plan for a month. Then, take time to reflect upon your goal, the progress you made, and what your new goal is.

Chapter Two: Cooking

8. Planning a Menu within a Budget

Planning a menu is a great way to save time and money. It allows you to know exactly what foods you need to buy each time you go to the grocery store, what is in your refrigerator, and what you are cooking each night. It helps you to resist the temptation to buy extra food that will go bad before you use it and to eat out, because you already have food waiting at home.

So, how do you plan a menu? More importantly, how do you plan a menu within your budget?

First, make sure to gather weekly ads from a few grocery stores. Check to see what is on sale. Circle the items that are a normal part of your family's menu and those items that are a really good deal. Decide which stores you will shop at this week and which ones you will skip. Take into account the money and time you will spend traveling to each store. For example, there may be a really good deal on produce at one store and one on meat at another but you only have time/gas to travel to one store. Choose the deal that will save you the most money and go to that store. This will take practice and experience grocery shopping. The more you shop, the better you will be at spotting deals because you will get a feel for normal prices of each item.

Next, check your refrigerator and pantry. Make a list of regularly used items that you are running low on or completely out of. Check expiration dates. Check your produce to be sure it isn't going bad. Some examples of these foods are: milk, butter, cheese, sugar, flour, rice, favorite fruits and vegetables, breads, tortillas, eggs, condiments, paper goods, soaps and body care, hygiene items, pastas, and cereals.

Then, begin planning your menu. Use the following chart as an example. Plan to shop as little as possible. The more often you visit a store, the more money you tend to spend. The example menu below is a two-week plan, meaning you will shop twice a month. This can be organized to follow paydays, most of which are bi-monthly, allowing you to shop when you have the most money so that it does not get wasted on other things.

Tips:

- Know your budget and stick to it. If an item will put you over your food budget, put it back and find a less-expensive substitute.
- Name-brands are not necessarily better. Many items sold under generic or lesser-known brands are the same quality as name-brand items.
- Use the items your circled in the ad and find recipes that include them
- Create a healthy, well-balanced plan for each meal. Try to include a protein, fruit and/or vegetable, and grains in each meal. Be sure to write the main dish and sides on your menu
- Plan for snacks. This will keep you from buying expensive junk food on impulse
- Consider your daily schedule. You are more likely to cook dinner on a busy day if it is something that can be quickly put together rather than a big, time-consuming meal
- Use leftovers. Your family will likely have leftovers throughout the week. Plan some meals as Leftover Time. You can use leftovers as lunches, have a leftover dinner night, or use the leftovers to create a new meal
- Try new recipes when the ingredients are on sale. It can be expensive to buy ingredients you don't usually have but it is important to vary your menu so you don't get bored. If there is a recipe you would like to try, save it until the most expensive ingredients go on sale.
- Plan simple meals with few ingredients. Meals can be amazing, even with a few ingredients.
- Stay seasonal. Many foods grow only in a single season. Sticking with seasonal foods will cut your costs and satisfy your natural cravings
- If you can, take advantage of bulk sales. If there is an item that is a staple in your pantry and refrigerator that is able to be stored and it goes on sale, buy enough for at least a few months. Things like flour, sugar, frozen or canned vegetables and fruit, cheese, butter, and rice can be correctly stored and last for some time. This allows you to save money in the long-run, because you are not buying those items at full price later.
- Try copy-cat recipes. If there is a dish at a restaurant that you absolutely love, try making it at home.

- Try out theme-nights. Maybe your family loves Taco Tuesday. Maybe you want to try some new Italian food. Or maybe you really love soups.
- Don't be afraid to reject a recipe you don't like. If you didn't like it the first time, you probably won't the second time either. Find something new or recycle an old favorite.
- Stick with the tried and true. If there is a certain meal your family likes stick with it. You will likely have some of the ingredients stocked up and you know it will be eaten.
- Ask your roommates or family for help. Talk to them about what they like or don't like. Plan meals together.
- Try meals from different cultures.
- Check the ingredients before you put a meal down on your menu. Know what you are getting into
- Plan big meals that can be frozen. Soups, pastas, burritos, breakfast sandwiches. These meals allow you to make double the amount you need and freeze half for future use, saving you time and money
- Avoid impulse buys. Stores are organized to keep you shopping as long as possible and they place items in prominent places to get you to buy them, even if you don't need them. Things like candy bars are placed in the checkout line because they are impulse buys. Few people have candy bars on their grocery list, but when they see that yummy candy while waiting in line, they grab it. If it's not a really good deal and it's not on your list, you probably don't need it.

Daily Meals Week 1	Daily Meals Week 2
Monday- Breakfast- Lunch- Dinner-	Monday- Breakfast- Lunch- Dinner-
Tuesday- Breakfast- Lunch- Dinner-	Tuesday- Breakfast- Lunch- Dinner-
Wednesday- Breakfast- Lunch- Dinner-	Wednesday- Breakfast- Lunch- Dinner-
Thursday- Breakfast- Lunch- Dinner-	Thursday- Breakfast- Lunch- Dinner-
Friday- Breakfast- Lunch- Dinner-	Friday- Breakfast- Lunch- Dinner-
Saturday- Breakfast- Lunch- Dinner-	Saturday- Breakfast- Lunch- Dinner-
Sunday- Breakfast- Lunch- Dinner-	Sunday- Breakfast- Lunch- Dinner-
Healthy Snacks and Treats-	

*Lesson Assignment: Make a two-week menu for your family that stays within budget

9. Shopping for a Menu

Now that you have a menu, with your grocery ad beside it, it's time to make a shopping list. You want to ensure you are getting quality ingredients that you actually need and will use.

The good news is, you've already started your list. Grab that paper on which you noted the things that were running low. That is the beginning of a grocery list. It's also a good idea to keep a running list of household goods or foods that you are out of. That way, as you run out of items you use every day, you can write them down so you don't forget to grab more when you go to the store.

Next, you are going to go through your menu, starting with breakfast on the first Monday. Check to see what ingredients you need to make that meal. Then, check your kitchen to see if you have enough of those ingredients. If you are missing an item, or you don't have enough, add it to your list. If it is an item that is in the weekly grocery ad, write down the sale price beside it. Repeat for each meal and the snacks you listed on your menu.

There are several ways to organize a menu. You can simply make one huge list, separate items by store, or even organize each store into departments. How you organize your menu will be up to you. It will take practice to see what works for you and helps you to stay on track in the store.

Tips:

- Stick to your list. Don't get distracted by the things you do not need
- Check prices by unit. On the price tag posted beside an item, there is often a smaller price beside the overall price. This is the price per unit. It shows how much you are paying per unit (overall price/how many units = price per unit). For example, you may be buying a jar of jam. One option is a 48 oz. jar of jam for \$4.89 and another is a 32 oz. jar of jam for \$3.59. Which one do you buy for the best deal? Well, the unit price for the 48 oz. jar is about 10¢ while the unit price for the 32 oz. jar is a little more than 11¢. Though the 48 oz. jar is more expensive, you actually get more jam for a smaller price per unit. If you can afford it, the better deal is the 48 oz. jar.
- Keep a runny tally of how much you are spending in your head as you shop. Round prices up or down and add them to your mental tally each time you place an item in your cart. This will help you to see when you are under or over-budget and help you decide what items to put back. You can also keep a tally on the side of your grocery list as you shop.
- Check your ad dates. Make sure you are shopping on days where the sales are actually happening. Most stores re-stock on Wednesday and sometimes you can catch two sales going on at the same store that day.
- Pay with cash. If you go to the grocery store with cash in hand that matches your budget, you are less likely to go over-budget. You don't want to be shortchanged at the checkout counter and it's much easier to play off a budget overdraft using a card that you will figure out later.
- If you have a hard time with impulse buys, shop online for pickup. Many stores have free curbside pickup which allows you to purchase your list online (you can even compare prices here), drive to the store, and have it brought out to your car.
- Understand grocery store layout. Items placed by the checkouts, on endcaps, at eyelevel, or in the median tend to be the items the store wants you to notice. Most of them claim great deals, but are actually more expensive. Move your eyes around as you shop and look for less expensive items in different areas.
- Balance cost and quality. Consider the quality of the items you are buying. How long will it last? How often will it be used? Are the ingredients a

better quality? For online shopping, check out the reviews. It's better to buy one pair of \$60 shoes that will last a year than to buy 6 pairs of \$20 shoes that only last a month each.

- Shop on a full stomach. You will be less likely to grab impulse buys because you are hungry and they sound good
- For fresh produce, check out the farmer's market, especially at the end of the day.
- Buy meat only when it is on sale. Meat is one of the biggest money guzzlers on your list. Buy it on sale, stock up, and freeze it for future use.
- Work = Money. Convenience foods are usually more expensive than raw ingredients. Frozen dinners, pre-chopped vegetables, and individual servings of snacks all cost more per unit than buying the ingredients and doing the work yourself. If you can, buy the raw or bulk items, and prep, package, and prepare them yourself.
- Buy a water filter/filtered pitcher rather than bottled water
- Learn the different tells of when produce is ripe and be selective about which fruits and vegetables you purchase. It may seem weird to smell, tap, squeeze, and thump on food in the grocery store, but it will ensure your produce is at peak ripeness when you are ready to use it
- Pull items with quick-expiration dates from the back of the shelf. Dairy, meat, and prepared foods expire and go bad quickly. You can extend this time by purchasing the items at the back of the shelf rather than the front. Most stores use a rotation system, placing items with the nearest expiration in the front.

Produce:	Pets:
Paper Goods:	Office Supplies:
Cleaning:	Dairy/Refrigerated Goods:
Canned Goods:	Snacks and Treats:
Frozen:	Drinks:
Breads:	Maintenance/Household Items:
Hygiene:	

*Lesson Assignment: Make a grocery list matching your menu and shop, staying in your budget

10. Reading a Recipe

A recipe is the instructions for making a meal. These can be found online, in cookbooks, or in your own family's collection. It's a good idea to find a system (e.g. cookbooks, index cards, a binder, online board, etc.) that works for you to save and collect recipes you like. Having a variety of recipes will allow you to build your routine meals and cater your menu to your taste.

At the beginning of a recipe, you will find a list of the ingredients and the amount you need of each. Below that, you will find the step-by-step instructions on how to prepare the meal. Simply gather your ingredients and follow the steps as you go.

Common Recipe Terminology: Below is a list of common recipe terms or abbreviations and what they mean

Term	Definition
tsp.	teaspoon
Tbsp.	tablespoon
c.	cup
slice	cut into uniform strips, one way across
chop	cut into small cubes, cut two ways across
finely dice	cut into very small cubes
dice	cut into small pieces, uniform in size and shape
mince	cut into very fine pieces
bake	cook in the oven
preheat	turn on the oven ahead of time
beat	to mix using a circular movement with a whisk or mixer
blend	to mix until combined
boil	to heat a liquid until it has bubbles rising to the surface
broil	to cook in direct heat, most ovens have this setting
brown	to cook meat until it is brown in color
drain	to remove all liquid using a coriander, strainer, or other method
grate/shred	to cut into thin pieces using a grater
grease	to lightly coat with oil or butter
knead	to press, fold, and stretch dough, usually with the heels of the hands
marinate	to soak in a liquid to add flavor
mash	to squish food with a masher or mixer
mix	to stir until well combined
sauté	to cook quickly in a pan with a little bit of butter or oil
simmer	to cook on a low heat that allows the liquid to bubble

steam	to cook food over steam without putting directly into water
al dente	to cook pasta until it has a slight resistance to being chewed (i.e. still a little hard)
fry	to cook in oil
poach	to cook in liquid that is just below the boiling point
roast	to cook in oven, in a roaster, or over a fire with very a dry heat
stew	to simmer in liquid for a long time
shell/shuck/peel	to remove the outer layer
shred	to pull apart into smaller pieces, usually referring to meat
sift	to remove large chunks by putting through a sifter or sieve
skewer	a long, straight stick (wood or metal) with a point at the end
skim	to remove the thin top layer of a liquid
descale	to remove the scales from a fish
baste	to pour the juices or fat from the meat back over it while cooking to keep it moist
scramble	to mix it up and cook in a pan
fillet	to remove the bones from a fish
cream	to mix together until it forms a creamy paste
zest	to remove the peel of a fruit by grating it into very small pieces, using a zester or small grater

*Lesson Assignment: Found in lesson 11

11. Preparing a Meal

Now that you have your ingredients and understand your recipe, it's time to get to work. Be sure to gather each ingredient, carefully measure, and follow each step. Preparing a meal is more than simply following directions, though. It calls for an understanding of food safety and a little creativity.

Food Safety: Review the information found below for food safety guidelines. Implement these guidelines as you cook, ensuring proper hygiene, temperature guidelines, and preventing cross-contamination. Note that these guidelines were created for restaurants and some guidelines (like wearing gloves) do not apply to home cooking.

Hygiene: Always wash your hands before you cook, after using the restroom, after eating or drinking, after touching your face, coughing or sneezing, after touching raw meat, after touching the trash can, and after touching dirty dishes, animals, or money. Be sure to keep food in the preparation area, rather than wandering around the kitchen or house with it. If your hair is long, it's a good idea to pull it back in a hair tie. Cover wounds with a bandage.

Food-Contact surfaces: Clean and sanitize all surfaces that food comes into contact with. You can use bleach, ammonia, or sanitizing wipes for this. Note that your dish sponge or rag is not a suitable surface cleaner as it can carry germs. This prevents cross-contamination.

Dishes: Clean your dishes using warm, soapy water. Scrape off any excess food, wash, rinse with clean water, and air dry. Alternatively, place in a dishwasher. Many dishwashers also have a setting to sanitize dishes. Clean all dishes after contact with raw meat. Prevent cross-contamination by using a different cutting board for meat, fruits and vegetables, and prepared foods. Always wash a cutting board and knife before using it for a different food.

Thawing, Cooking, and Correct Temperatures: If you have a frozen food that needs to be thawed, take precautions to do so safely and ensure that it will be ready in time for your meal. Thawing can take place in the refrigerator (place meats in a container (e.g. bowl or shallow baking pan) on the bottom shelf,), as a part of cooking, under running water, or in the microwave. As foods thaw, they should never be allowed to warm past 41° F. When cooking and storing food, it

should stay under 41° or above 135° for as long as possible. It is in this range (41-135°) that most bacteria and germs grow. Use the following chart to understand the correct temperature for cooking various foods. Note that temperatures can be taken with a cooking thermometer and should be taken on the inside (not on the surface) of the food in several different spots. Keeping foods at the correct temperatures will inhibit bacteria growth and decrease the chances of food born illnesses.

Food Item	Correct Temperature
Whole muscle meats and eggs	145° F
Ground meats	155° F
Poultry, stuffed meats, stuffed pasta	165° F
Reheated foods	165° F

*Information for this section was taken from this [file](#) by the Utah Health Department

Creativity: Is there a recipe that you really like but think it would be better if you added one more thing? Is there an ingredient the recipe calls for that you don't really like? Cooking is a creative art and allows room for putting your own spin on meals. Experiment with adding, taking out, or changing ingredients to your taste. As you practice, you will get better at knowing which foods and spices taste good together, which ones you can substitute, and how you can make a recipe exactly the way you want it.

*Lesson Assignment: Prepare one of the meals on your menu. Follow food safety guidelines and note any terms you do not understand, referencing the chart or a dictionary to understand the instructions.

12. Understanding when Food is Unsafe

Food safety is something you need to take seriously. You put it into your body and, at times, serve it to others. Food can carry germs and cause illnesses if not treated properly. The general rule for food safety is: When in doubt, throw it out, meaning if you think a food may be bad, don't take the risk, just get rid of it.

In addition to the information covered in Lesson 11, you must pay careful attention to things like expiration dates, appearance, odors, and cross-contamination.

Expiration dates: These are dates printed on the packaging of food and suggest when an item may go bad. They can be found printed on the top, bottom, or side of an item. Expiration dates are based on the made-on date for the food and calculate the time that an item is usually usable. Try not to use items after the expiration date if possible.

Appearance: Take note of the appearance of foods as you buy them. Be sure that each item is high-quality and does not have a strange color, texture, or open packaging. As you cook, note the appearance of each food again. Does it look the same as it did when you purchased it? Does it feel the same? Is it the right color? Is there mold present? Do you see pests or animals droppings? If you notice anything odd about the appearance of food, further inspection may be needed to ensure that the food is safe to use.

Odors: Rotten food sometimes smells rotten. Odor is an important tool for understanding the safety of your foods. Before including an ingredient in your meal, smell it. If it smells bad, you probably shouldn't use it.

Cross-contamination: It is important to store your foods correctly so they do not become cross-contaminated in the refrigerator or pantry. Cross-contamination is when a food with bacteria and germs on it touches another food, or they touch a shared surface, and contaminates (shares germs with) a second food. This can happen when juice from raw meat leaks onto your vegetables, milk spills into your leftovers, or a bag of cheese opens and falls into your lemonade. This can spoil the food and lead to an increase in bacteria. If foods have been cross-contaminated you should throw out the items that are mixed together.

13. Storing Perishable Foods

To prevent cross-contamination, pests, and early expiration of foods proper storage is important. Organizing a refrigerator is about more than just placing items where they fit.

First, all foods should have some kind of containment. This may be a baggie for grated cheese, a drawer for fruits and vegetables, a container with a lid for leftovers, a carton for eggs or milk, or a shallow dish for meats. Foods should not be allowed to come into direct contact with each other.

Next, organize your refrigerator by ease of cooking. Place the foods that need the least amount of preparation on the top shelf. Foods that are ready to eat right out of the refrigerator include: raw fruits and vegetables, salads, or some snacks. Continue to place foods according to preparation needs, placing those with the lowest cooking temperature higher than those with higher temperatures. The second shelf should be foods that you may cook, but are not high-level contaminants (e.g. vegetables you add to stews or stir fry's). Next, you should place your whole meats. Then ground meats and eggs. And finally, at the bottom, your raw poultry. Adjustments may need to be made based on your refrigerator style and space, but follow this plan as much as possible and do all you can to minimize food contact.

Knowing how long to store food is important in preventing illness, too. Leftovers only last so long before they go bad though they don't come with an expiration date. It's important to understand the proper time to throw out food to protect yourself and save money. As a general rule, raw meats should be used or thrown out within two days (this does not count thawing time), soups, stews, casseroles, and other leftovers can be used for five days, cooked pork can be saved up to a week, unopened processed meats can be used for two (hot dogs, lunch meats) to three weeks (summer sausage, pepperoni). As always, if it looks, feels, or smells bad, throw it out rather than risking illness.

*Information for this lesson was found [here](#)

**Lesson Assignment: Go through your family's refrigerator with an adult and work to correct any unsafe food practices. Check expiration dates, appearances, odors, and storage methods that could cause cross-contamination.

14. Baking

Baking can be done in a toaster oven, a conventional oven, or even a Dutch oven. When you bake, you cook food with a dry heat that surrounds the entire dish and cooks it from the outside in. The most commonly baked food is bread. Cakes, pies, rolls, cookies, casseroles, meats, and muffins are also baked. Though baking is much like cooking in other ways, especially when following a recipe, there are some terms unique to this method of cooking.

batch	amount of baked good made from one recipe
beat	to mix rapidly, typically done with whisk or mixer
blend	to mix together until two or more ingredients become incorporated
butter (verb)/grease/oil	to spread butter/grease onto a surface
combine	to mix together
cool	to let stand until the temperature is reduced
cream	to mix butter (or other solid fats) with other ingredients (i.e. butter and sugar)
cut in	to mix butter or shortening into flour using a knife until well mixed
dry ingredients	ingredients without moisture (i.e. flour, cocoa powder, sugar)
fold	the incorporation of ingredients usually done with a whisk or spatula
firm peaks	when whipping an ingredient small ridges should appear (like little mountains) when the whisk/beater is pulled out of the mixture
knead	to massage, stretch, pull, and fold dough (see video here)
preheat	to turn the oven on beforehand and let come to the desired temperature

proof	to let shaped bread dough rise a final time before baking
punch down	deflating bread dough by gently pushing out the air bubbles (usually after the first time it rises)
sift	to fluff up a dry ingredient (usually flour) by putting it through a sifter
score	to slash the surface with a sharp knife
whip	to beat a liquid ingredient, incorporating air, until extra volume is added
zest	made by grating the outer layer of a fruit

*Terms and their definitions were found [here](#)

Some basic tools you will need for baking are: measuring spoons, measuring cups (for dry ingredients), a measuring glass (for liquid ingredients), a mixer (stand, electric, immersion), a whisk, a spatula, a spoon, a loaf pan, muffin/cupcake pans, cake pans (various shapes), sheet pans, a pie plate, a rolling pin, a pastry brush, cookie cutters, a bread knife, mixing bowls, and any specialty items you may need for different recipes.

Baking requires a knowledge of the chemistry of food and is often best done when the recipe is closely followed. Use quality ingredients and pay attention to the amounts and types (i.e. baking soda vs. baking powder) that the recipe calls for. Likewise, an understanding of different mixing, rising, and cooking methods can help the ingredients be put to the best use.

Baking in a Dutch oven: Dutch ovens are great for baking and cooking in general, especially when electricity is not readily available. Many people use them while camping. However, unlike a conventional oven, a Dutch oven needs to be carefully prepared before using it.

Seasoning a Dutch oven: Before the first use, a Dutch oven needs to be seasoned. This protects the surfaces of the oven and makes it nonstick. First, inspect your oven for chips, cracks, or burnt spots. Be sure to clean off any debris and wash it as you normally would. Next, place your oven on the stovetop to allow any leftover water to steam away. Allow it to cool. Preheat your conventional oven to

400-450° F. Pour a small amount of vegetable oil onto a paper towel or cloth and begin to rub it into your Dutch oven. The oil will be absorbed into the surface. Continue to rub the oil in until there is no surface on your Dutch oven that looks dry (should be shiny everywhere). Use a dry paper towel or rag to remove excess oil with a final wipe down. Place your Dutch oven into the preheated conventional oven and let bake for one hour. Allow it to cool. Repeat this process every time you wash your Dutch oven.

Items needed: When cooking with a Dutch oven you will need heat-resistant gloves, a lid stand, a lid lifter, a charcoal chimney starter, charcoal briquettes, grill and tongs

Cooking in a Dutch Oven: First, you need to heat the coals. Add your charcoal to your charcoal chimney (2 briquettes for every inch in diameter of your oven). Light the charcoal (using lighter fluid if needed) and allow them to heat for 15-20 minutes. Gather and prepare all ingredients. Add them to your Dutch oven. Put the lid on the Dutch oven and place it in an area where the coals will not cause a fire (i.e. an open, sandy spot or in a campfire ring). Place 1/3 of the coals below and 2/3 of the coals on the lid of the Dutch oven. Allow it to bake according to the recipe, rotating the oven and lid every 10-15 minutes to ensure even cooking. Stir the ingredients as needed. When removing the lid, take extra care that ashes from the coals don't fall into your food. Cooking in a Dutch oven takes patience, but the unique flavor is a favorite of many. The oven will stay warm for a long time, allowing food to stay safe for longer periods of time even when electricity is not available.

****Lesson Assignment:** Season your family's Dutch oven, search for a recipe you would like to try, and prepare it in the Dutch oven. Alternatively, bake in a conventional oven.

15. Grilling

Cooking food on a grill is a great alternative to stovetop cooking, especially when it is warm outside and you don't want to heat up the house or in areas where electricity may not be available.

There are different types of grills, each using a different form of heat. Grills can be gas, propane, electric, or charcoal. If your grill has cords, it is an electric grill. If it has a tank below it, it is likely propane. If you see neither of these, but your grill has knobs, it is probably a gas grill. If none of these things are present, you have a charcoal grill.

Like any other form of cooking, grilling takes some preparation before the food ever even makes it to the grill. First, clean your grill with a steel brush (for non-coated grates) or a nylon brush (for non-stick grates). Clean out the bottom of the grill (the barrel part). If your grill is not pre-seasoned, spray the grates with a thin layer of non-stick spray.

Next, it's time to turn on your grill. The method for this will vary depending on what type of grill you have. For gas and propane grills, you will need to ensure the valve is open so that the gas/propane can travel to the grill. Consult your owner's manual for the correct procedure for your grill. You will likely need to turn one of the knobs to high and push an ignitor button. For electric grills, simply plug it in and turn the knob. For charcoal grills, you will need to add charcoal to the bottom part of the barrel (remove the grate, add charcoal, replace grate), and light it using a match or lighter. Most charcoal will require lighter fluid to get it going. Add this before trying to light the briquettes. Allow your grill to pre-heat until it has reached the desired temperature and/or your coals have a grey ash on them.

Prepare your food while the grill is pre-heating. Be sure to follow safe food handling procedures and follow the recipe. Different foods (vegetables, meats, fruits, etc.) will need different grilling temperatures. With gas, electric, and propane grills it is easy to adjust the temperature by simply turning a knob. With charcoal, temperature can be adjusted by moving coals, opening vents, and putting food on different layers of the grill.

Chapter Three: Technology

**These lessons assume the user is on a PC with Windows, please adjust as needed.

16. Virus Protection

A computer virus is a piece of software (software is simply the programs and other operating information for your computer) that replicates inside of your computer and those within your network. Viruses can also affect phones, tablets, and anything with an internet connection. There are several different types of computer viruses, each with a harmful different goal. A computer that has been infected with a virus can send that software to other computers that it interacts with. Just like a virus that you can catch and share with friends (i.e. the cold), a computer virus quickly spreads and harms the files, programs, security, and safety of your computer.

Different types of computer viruses do different things. A resident virus can affect your RAM (Random Access Memory). RAM is the short-term memory and storage of computer programs. It allows you to keep several programs running at the same time. A resident virus can affect the way your computer runs programs or its ability to run quickly and efficiently. A multipartite virus can infect your entire system and insert programs that allow unauthorized actions in your computer. A direct action virus only affects a specific type of file, but can corrupt that file, making it unusable. A browser hijacker directs your computer to websites that can steal your passwords and other information or infect your computer with more viruses. An overwrite virus can infect your computer and rewrite existing code making programs, files, and folders work differently than you intended. A web scripting virus hides in the coding of links, ads, pictures, videos, and websites. It can download dangerous files onto your computer. A boot sector virus, usually spread through a USB or email attachment, and infect a computer's ability to boot up, or start.

Computer viruses allow others to have control over your computer. Different types of viruses allow others to steal your information, such as passwords, contacts, and financial records, corrupt files so they don't work anymore, and disrupt programming causing your computer to stop functioning properly. Hackers can also use this information to take over your computer remotely.

Just like a cold, however, there are ways to protect your computer, phone, or tablet. Three simple ways to protect yourself from a virus are: education, antivirus software, and firewalls.

Education: Learning how a virus spreads is half the battle. If you know how a germ can get into your body, for example, you can take steps to prevent it from happening. Like washing your hands, there are habits that can help protect your computer. First, never open an attachment unless you know who sent it. Be very careful in what you download from websites. A virus could be hidden in the code. If a download begins that you didn't authorize, cancel it and leave the webpage. Avoid clicking on pop-up advertisements. A pop-up blocker can help with this. Take care in which links you click on. If you receive a link from an unknown source or questionable website, don't click on it. This link could be hiding a virus. Don't store your login information or credit card information on your computer. This may seem like a convenient way to remember everything, but it allows easy access to your information should anyone get into your computer. Secure your computer, phone, tablet, email, and other sensitive information with a strong password. Strong passwords are not easy to guess and usually contain a mixture of capital and lower-case letters, numbers, and symbols. Never insert a USB into your computer unless you know what is on it and that it came from someone who is trustworthy.

Antivirus Software: Antivirus software is a program that you can install on your computer that allows you to protect against, search for, and remove viruses from your computer. There are several different types and makers of antivirus software and choosing the right one is a matter of considering the security level you need, the amount of space your computer has for storage, and the price you can afford. You can also install more than one antivirus program for added protection.

Firewalls: A firewall is more like a gate than a wall. It is a program that inspects the different codes, programs, and files coming into your computer against a set of rules that it has been configured with. A firewall will only open to allow in those things that are deemed safe according to its programming. If something does not follow the rules, a firewall will simply not allow it into your network. Like antivirus software, firewalls come in a variety of types and options.

*Lesson Assignment: Talk to your parents about the virus protect they have installed on your family computer. Discuss family rules for internet usage, emails, attachments, and downloads. Make a computer safety plan to protect your computer from viruses and implement it in your home.

17. Making a Backup

When working on a file, folder, or website, it's always a good idea to save your work at regular intervals. Saving even before you are finished working ensures that you don't lose too much work if something happens to your computer. Making a backup of the finished product is also a good idea. A backup is a copy of your work, saved somewhere other than on your computer. There are two different types of backups you can create.

Hardcopies are printed, physical copies of your work. This type of backup is great for files you've built such as reports, blogs, or receipts. It allows you to carry your work anywhere and have an extra copy should you be unable to access the file on your computer. Hardcopies can also be in the form of printed photographs, for images.

Softcopies are copies of your work that have been saved to a device other than your computer. Softcopies may be emailed through attachments, saved to another device, saved on a USB, or other storage device (i.e. external hard drive, floppy disk, CD, DVD, cloud, or alternative server). Softcopies are easily transported and have the added benefit of already being in data form, making it easy to re-work the file, folder, or website if needed.

Rather than choosing one backup form, it's smart to have both a hard copy and a soft copy of your work. This type of redundant backups ensures your work is difficult to delete, remove, or lose.

*Lesson Assignment: Choose a backup method for both a hardcopy and a softcopy of your last report. Learn how to print and properly store (i.e. filing cabinet, binder, folder) a hard copy and save a softcopy on a device other than your computer.

18. Website Building

Website building is an important skill in today's world, especially if you have a product or idea you want to share with others. Every business, it seems, has a website and, by learning how to build one on your own you can save thousands of dollars and present your ideas to the world in your own way.

The first step of building a website is finding a host that fits your needs. A website host provides the basic tools you need to build and share your website online. It saves and runs your website from its own server. Hosts vary in cost and quality and offer a range of options and skill levels. Some common website hosts are HostGrid, Site Creator, Blue Host, GoDaddy, Ionos, Immotion, SiteGround, Hostinger, and Wix.

After choosing a host, you will need to choose a domain. The domain of your website is its address. It is what people will type into their computers when looking for your site. Your host will allow you to search for and purchase the use of any unused domain for a yearly fee. You may also choose to purchase domain privacy at this time, which hides your personal information tied to the website from others.

Next, you may want to add an SSL to your website. An SSL (represented on many web browsers by a lock symbol beside the domain) is an added layer of security for your site and its visitors by encrypting the data they share. This is a good option if your site allows for the creation of visitor accounts and a necessity if your site takes payments of any kind. Protecting your customers data should always be a top priority of any business and many visitors to your site will feel safer if that SSL is there.

Once you have a domain and security set up, it's time to start building your website. Many hosts offer a certain web builder with their services. A web builder helps you build and personalize your website without having to understand and use code. The most popular web builder is WordPress. Many offer instructions and online tutorials that help you learn how your builder works.

First, you will need to choose a theme for your website. The theme will determine the look and layout of your entire site. Theme options allow a blog site to be laid out differently than a store website. A blog, for example, may have a

running list of writings while a store may have a shopping page which allows visitors to see and purchase products. The theme also allows your website to present a coherent feel between the pages by formatting each of them to match. Themes can be customized and allow different options for color, font, and layout for different pages.

Next, you will build your homepage. The homepage (or landing page) of your website is the online store front. It is what your visitors will see first and what they will use to decide whether or not your business, product, or idea is worth their time. It should be user-friendly and thoughtfully display your most important information. It should also include a menu so that visitors can easily navigate your site. Additionally, you can add plugins to your site to make customization easier and add options not available in your basic theme.

When your homepage is set up, you will need to build additional pages. The type, layout, and presentation of these pages will vary depending on your website's purpose. Most websites have a Contact Us page, Cookies and Privacy Policy page, About Us page, and an FAQ (frequently asked questions) page. Additional pages such as Shop, Blog, or Services will vary with your type of site.

Your website will look different based on which device a visitor uses to access it. A desktop will show the full site but a phone or tablet will show a mobile version of your site. Use your web builder to edit and tweak both versions until they look the way you want.

Once your website is built, you will want to have a few friends or family members test it out. Ask them to give you feedback about how you can improve your site for visitors including areas like navigation, typos, links, and photographs.

Finally, you will need to add some legal documents to your website and set up analytics and mapping. Many countries now require a cookie notice, terms of use, and privacy policy. There are several plugins that can help write these important documents. If you live in the state of California or the EU, you may need additional information presented on your site. You may also want to include a disclaimer.

Analytics are simply sets of data that help you to see who is visiting your website, how long they are staying, and what they are looking at. This information can

help you to better customize your website to your visitors and understand where your traffic is coming from. There are several different analytics programs such as Google Analytics and JetPack.

Mapping your website and adding them to different search engines is one of the easiest ways to improve your SEO (search engine optimization). This simply means it will be easier for others to find your website in the millions of sites online. Each web builder and search engine has a different process for this and online tutorials exist to help you out.

Once your website is ready to go, it's time to launch. Launching your site will make it visible to others on the internet. After launch, your website should regularly be updated, backed up, and added to. Your analytics can help you understand what customers and visitors want to see and you can adjust accordingly.

*Lesson Assignment: Build a website on your own. It can be as simple as something that tells others about a hobby of yours or as complicated as a business that sells something. Be careful about what personal information you sell. Wix is a great place to start, as it is a free builder.

19. Blogs, Podcasts, and Video Channels

The internet is a great tool for sharing ideas and information. People from all walks of life, both expert and amateur, can provide insight, tips, and inspiration through informal blogs and podcasts.

A blog is simply an article written online in a conversational tone. It can share feelings or ideas, provide information, or tell stories. Blogs are written like you are talking to a friend about something that is on your mind. They vary in topic and cover anything you can think of. Many bloggers choose a single theme to discuss (i.e. farm life, politics, cooking, home improvement, religion, etc.) and write regularly on topics related to that theme.

A podcast is like a blog, but in audio form rather than written. Podcasts include episodes which followers can listen to and often feature interviews with well-known or expert opinions on certain topics.

Video channels, like those on YouTube, can also be personalized to reflect a theme and share information with followers. In these channels, content builders create videos (i.e. how to, fandom information, book read alongs, etc.) regularly and share ideas, stories, and information throughout these videos.

*Lesson Assignment: Create a blog, podcast, or video about a topic you are interested in. Share knowledge you have, teach others a new skill, or tell a story that uplifts others. You may want to share it online or share it with friends and family but keep it off the internet, depending on family rules.

20. Replacing Hardware

Your computer is attached to various forms of hardware, or physical tools it uses. Some examples of common hardware include a keyboard, mouse, speakers, router, modem and a printer. Over time, your hardware may become worn out or outdated and you may need to replace it.

Some pieces of hardware, such as a mouse, keyboard, or speakers, are very simple to change out. You would simply unplug that piece of hardware from the back of your computer tower and plug the new one in its spot. Some hardware, like a speaker system, may also need to be plugged into a power source.

Modems and routers help your computer have internet access. A modem brings the internet from your provider to your home. The router connects the devices in your home to the internet, either through a wire or cordlessly through Wi-Fi. Modems are often supplied by internet service providers and it is a good idea to check with them before replacing a modem. Many will come to your home and ensure everything is working for you. Routers may also be supplied by your provider, or you may need to purchase your own. Routers are connect to both the modem and the devices in your home. To replace a router, you should first note (or take a picture of) the connections on your current router. Sign your devices out of the Wi-Fi network. Then, power down your modem and router and unplug each connect from the modem and the power supply. Plug in the new router and replace cables as needed and power both the router and modem on. Turn your computer on, visit your Control Panel, click on *Network and Internet*, then *Wi-Fi*, and switch it on. Your computer will search for all nearby networks.

Connect it to the new router, whose network name you can usually find on the bottom or side of the router. Enter the password found on the bottom and click connect. Set your network settings, if needed and connect your wireless devices to the new network.

Most people have printer connected to their computer. This allows them to produce hardcopies of their work. However, printers can wear out over time and sometimes need to be replaced. To replace a printer, you simply power down your old one and unplug it from the back of your tower (if not wireless) and its power source. Then, plug in the new printer's power source and cords (or connect it wirelessly according to the manual) into your computer tower. Next, visit your control panel and go to *Printers and Scanners* and click on *Add a New Printer*. Follow the on-screen instructions to help your computer recognize the new printer and personalize your settings. You can also remove your old printer here.

*Lesson Assignment: With adult help, change or unplug and plug back in one of the hardware devices on your computer.

21. Cleaning and Changing an Ink Cartridge

After installing a new printer, or when your printer is running low on ink, you will need to change out the printer cartridges. This is a simple process that gives your printer a fresh supply of ink. Your printer's manual will tell you the type of ink cartridge(s) it uses and your computer will tell you when your ink is running low. It's a good idea to have an extra set of cartridges at home so you don't have to go to the store every time you run out of ink. Simply follow the manual's instructions to remove the old ink cartridge and install the new. You will then want to align the cartridges. Follow your printer's manual to learn how to do this.

Sometimes, a printer may produce smeared or spotty printouts. If this happens, it is likely your printer heads need to be cleaned. To do this, you simply go to your Control Panel, click on *Devices and Printers*, right click on the printer you are using, click *Properties*, choose the *Hardware or Maintenance* tab, and choose *Clean Ink Cartridges*. Follow the on-screen steps and repeat until printed papers

come out normal. Alternatively, you may need to double click the printer you are using, select *Maintain Your Printer, Device Services, and Clean Ink Cartridges*.

*Lesson Assignment: Next time your printer is out of ink, replace it yourself.

22. Social Media

Social media is an online tool that can help you connect to others through your computer or device. It comes in different forms, each with a different focus or purpose. Some of the most popular forms of social media are Facebook, Twitter, Instagram, Snapchat, Pinterest, YouTube, Reddit, and LinkedIn.

Though many use social media to stay in touch with friends and family, others understand its power in promoting businesses or ideas. Social media offers a sense of community and belonging that many people enjoy.

Many platforms offer an option to purchase advertisements or put your social media page in front of new people. This can mean new customers and/or followers. Social media also allows businesses to post daily updates, helping their customers feel involved and connected.

Social media platforms allow others to follow and/or friend a page they are interested in. This way, every post to the page shows up in a follower's feed. It also allows them to interact with the page manager and other followers.

Hashtags (#) also can help posts get in front of new people. By including the hashtag symbol followed by a topic (with no spaces), your post becomes easily searchable. If someone searches on the platform for that, or shows interest in it, your post will be put into their feed when your hashtag matches what they search for. You can add as many hashtags as you like to a post.

*Lesson Assignment: Using safe social media practices and within family rules, create a social media advertisement for a product or service. Canva.com is a great tool to create images, but be sure to add words to your post as well and try out a few hashtags.

23. Troubleshooting

Sometimes, no matter what you do a computer, software, or hardware will fail. Often, these failures are because of a problem that needs to be addressed in our own actions or in the programming of the computer. The best thing to do when this occurs, is look for a troubleshooting page. This may be built into the program, included at the end of the manual, or you may need to search online for it. Here, you can often find common issues and how to solve them. Sometimes you can search for a specific question you may have or chat with a customer service representative.

*Lesson Assignment: Visit your computer's control panel and click on *Troubleshooting*. Next, click on *Network and Internet* and *Internet Connections*. This is meant to search from problems your computer may have with connecting to the internet. Allow the troubleshooter to run by clicking *Next*. If your computer has any problems, ask an adult to help you use the troubleshooter to address them.

24. Coding

Computers, apps, websites, and software have a language they use to interact with and work with each other. This language, known as code, helps everything run correctly. Code is written in lines, which creates a document called script. Every line of code tells a computer how to act. For example, #8b1515 is the code for a dark shade of red. This code can be connected to code that represents background, text, links, or images, allowing it to change the color of those things to that exact dark shade of red.

*Lesson Assignment 1: Try out scratch.mit.edu and learn to code a game. Use tutorials as needed. Allow someone you know to play the game you created.

**Lesson Assignment 2: Take an online or in-person coding class meant for your age. Continue to practice and improve your coding skills.

Chapter Four: Sewing

25. How to Read a Pattern

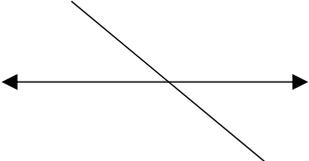
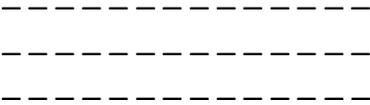
Sewing patterns (both printed and digital) give us information on how to create different items and articles of clothing from fabric. Sewing patterns are available at craft and fabric stores as well as online. They vary in complexity and skill level (easy to difficult), but contain universal marks that mean the same things throughout. Like the letters of a language that build an entire book, each mark is a step in building the final project.

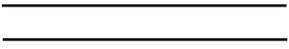
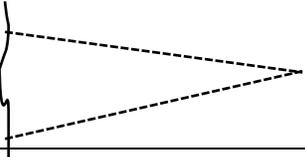
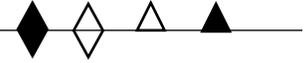
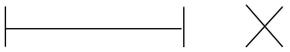
After choosing a pattern, look first for any written instructions. This may help with gathering information on the correct types of fabric and thread for this project, knowing which materials are needed, and understanding the order in which you must work.

Next, look at the style lines. These are flat images of the final product. These can help you visualize what your project will look like and decide if the cut of the final clothing article is right for you without the distractions of different fabric patterns and colors.

If you are making something with several sizes (i.e. an article of clothing), look at the size chart and measurements before cutting your pattern. This will tell you which set of lines to cut out so that the final product fits correctly. Remember, when sewing, don't use your normal "store size" but take your own measurements according to the instructions on the pattern and match them up to a size.

Next, you will need an understanding of basic sewing pattern symbols. See the chart on the next pages for the most common ones.

<u>Symbol</u>	<u>Title</u>	<u>Meaning</u>
	Grainline	Tells you how to line up your pattern with your fabric. If your grainline looks like this, your pattern should be parallel to the grain of the fabric. The grainline can best be determined by finding the selvage (or finished edge) of the fabric
	Grainline	Tells you how to line up your pattern with your fabric. If your grainline looks like this, your pattern should be perpendicular to the grainline of the fabric
	Grainline	Tells you how to line up your pattern with your fabric. If your grainline looks like this, your pattern can be either parallel or perpendicular to the grain of the fabric.
	Cutting line	Usually there are a few cutting lines close together, representing different sizes. These are the lines you will cut on both your pattern and you fabric
	Fold Line	Here you will fold the fabric before attaching your pattern, placing the

		smaller line on the pattern at the edge of the fold on the fabric.
	Lengthen or shorten	Lines to allow for shorter or longer versions of the final product. Use these lines to cut if you need a longer or shorter cut
	Dart	A dart is a fold in the pattern which is sewn in to create shape in the final product.
	Stitching Line	The line you will sew along with the sewing machine.
	Notches	Notches are small triangular cuts made along the seam of the fabric in order to match up the pieces correctly.
	Buttons/Button holes	Shows where buttons (x) and button holes will be placed on a garment.

Lesson Assignment: Choose a pattern you would like to try to make. If this is your first time sewing, stick to an easy pattern (a pillow is a great first project). Examine the pattern for needed materials, choose a fabric and gather other supplies. Read the pattern, including sizing information and note any markings and their meanings. Cut the pattern to the correct size, wash and dry your fabric (this is important to prevent it from shrinking after sewing), and cut the fabric according to the directions. Set this aside for the next lessons.

26. Sewing Machine Maintenance

The sewing machine made it possible for people to sew more quickly and with more consistent stitches than stitching by hand. When electricity was brought into homes, the process became even easier. However, even the most modern of sewing machines needs a little maintenance to stay running well. The first step to maintaining your sewing machine is knowing how it works. Become familiar with your sewing machine and each of its parts by studying the owner's manual for your machine.

Each time you use your sewing machine you should dust it off. Be sure to get into the small places using the little brush that came with your machine. Keeping a dust cover on your machine can also help with this. This will prevent dust from getting into the gears of the machine and will protect your fabric as well.

Next, check your sewing machine needle. Needles dull over time and should be changed regularly. Check your sewing machine's manual for information on the correct size and type and on how to change a needle if necessary. Most sewing machines have a flat side of the needle, which goes into the machine facing the back.

Then, check your bobbin. The bobbin is the smaller roll of thread that goes into the machine under the needle. This allows the machine to create a strong stitch and tie the threads together as it goes. The bobbin should be neatly rolled with thread matching the needs of your pattern and placed (according to your manual's instructions) in the bobbin area. Your machine should be threaded correctly. Then, the thread from the bobbin should be pulled upwards using the thread from the spool on top and the needle (again, see your machine's instructions for more information).

Finally, sewing machines contain parts that constantly rub against each other and can require lubricant. Of course, whatever lubricant you use must be safe for your fabric. Consult your manual for more information on this.

Lesson Assignment: Take out your sewing machine and dust it off according to your manual's instructions. Check to see if it is properly lubricated. Check your needle to see if it needs replaced. Then, learn how to fill and load a bobbin and thread your machine.

27. Using a Sewing Machine

This lesson may take a few days, or even a couple of weeks.

Begin by practicing stitching a straight line on a scrap piece of fabric. Ask an adult to help guide you at first. Then, practice a few squares drawn onto a scrap piece of fabric. Finally, practice sewing a few circles.

With help from an adult, begin sewing the project you chose in lesson 25. Follow the instructions on the pattern and be patient as you work. You may need to go back, re-do, or fix mistakes. This is part of the learning process. Take your time and keep practicing until you get a final product you are proud of.

28. Hand Stitching

Hand stitching is a traditional method of sewing without a machine. It includes many different types of stitches, projects, and styles. Hand stitching may be needed to finish a project that was mostly sewn on a machine, to do an entire project (i.e. embroidery or cross-stitch), or for a combination of the two.

Review the following types of stitches. Try each one on a scrap piece of fabric using sewing or embroidery thread. Then, choose an embroidery or cross stitch project and complete it.

Type of Stitch	How To	When to Use It	What it Looks Like
Running/Basting stitch	Thread a needle and tie a knot at the end. Pull the needle through both layers of fabric until the knot is tight against the back. Put the needle back through both layers of fabric about ½ in. from your first stitch. Pull tight. Repeat until seam is the desired length.	Used to temporarily hold two piece of fabric together	
Back stitch	Thread a needle and tie a knot at the end. Pull the needle through both layers of fabric until the knot is tight against the back. Put the needle back through both layers of fabric, creating the desired stitch length. Pull tight. Repeat until seam is the desired length.	In embroidery when you want a continuous line of thread with no breaks	
Cross stitch	Thread your needle and tie the ends of the thread together to create a knot. Beginning at the bottom left hole, push your needle from the back to the front of the fabric. Then, feed your needle through the top right hole of the same square.	On cross stitch patterns	XXXXX

	<p>Repeat this step for the entire line. Then, push the needle up through the bottom right hole and down the top left. Repeat through the line</p>		
Blanket stitch	<p>Thread your needle and tie a knot at the end of the thread. Place the wrong sides of the fabrics facing each other. Feed the needle through the first piece of fabric, putting the knot between the layers. Then, push the needle through both layers, pull through, and push the needle through the loop that is formed. Pull it tight. Repeat until you've finished the seam.</p>	Edges of quilts or pillows or on certain embroidery projects	
Slip stitch/Blind stitch	<p>For this stitch, your fabric will be folded over with right sides of the folds together and right sides of the fabric facing out. Thread the needle and tie a knot at the end. Pull the needle up from the</p>	When you want an invisible seam and/or are closing up a project	

	underside edge of the fabric and pull through. With your needle, grab a small piece of the unfolded fabric and pull through. Then, put your needle back through the first entry point and pick up a small amount of fabric. This stitch requires you to sew on the inside seam so that it will be invisible when you are finished. Repeat until you have finished the seam.		
Catch stitch	Thread your needle and tie a knot at the end. From the back of the fabric, thread your needle up through the front until the knot is tight against the fabric. Working right to left, pick up about 1/8" of fabric and pull to the left. Then, on the opposite side of the fabric, work the needle from right to left, picking up 1/8" of fabric and pull through. Repeat until seam is finished.	When creating a strong seam that is invisible on one side of the fabric	
Whip stitch	Thread your needle and tie a knot at the end. Feed your	When creating a strong seam	

	<p>needle through one layer of fabric and pull the knot tight between the layers. Stitch a short diagonal stitch along the seam, rounding the stitch over the edges of the fabric.</p>	<p>that is invisible on one side of the fabric</p>	
<p>Chain stitch</p>	<p>Thread your needle and tie a knot at the end. Sew one straight stitch. Then, where you would like your stitch to end, thread your needle up through the fabric. Push your needle through the first stitch and back down the insertion point. Repeat, feeding through each consecutive link as you go.</p>	<p>When you want a chain-like look on an embroidery project</p>	

*Information for this lesson was found here: *12 types of hand sewing stitches - 2021*. MasterClass. (n.d.). Retrieved December 21, 2021, from <https://www.masterclass.com/articles/types-of-hand-sewing-stitches#8-common-hand-sewing-stitches>

29. Clothing Repairs

One of the most rewarding parts of sewing is being able to provide yourself and others with quality products that last for quite some time. However clothing, whether store-bought or homemade, sometimes needs repairs. Simple repairs can often extend the life of your products and save you money. Below are a few simple clothing repairs. For this lesson, practice each one on a piece of clothing in your home that is in need of a repair.

What Happened	How to Fix It
Lost button	Thread your needle with a color that matches the fabric. Tie a knot in the end of your thread. Feed the needle from the back to the front side of the fabric where one of the button holes will be placed and through the first hole on your button. Then, push the needle back down through the next hole on your button and fabric. Repeat until the button is secure and tie a knot on the back of your fabric. For buttons with four holes, this is usually done in an X pattern.
Torn Seam	Using thread that matches the fabric, thread your needle and tie a knot in one end. Flip the clothing inside out and use a slip/blind seam to close it up. Be sure to tie securely.
Missing Drawstring	Place a safety pin through one end of the drawstring. Use the safety pen to thread the drawstring through the drawstring hole in the fabric. Tie off both ends of the drawstring to ensure it stays in place.
Pants/Skirt/Dress Too Long	To shorten a garment, you will need to sew a hem. You can do this with a machine or by hand. To sew a hem,

	<p>fold the fabric under until it is the correct length. Use a catch stitch or slip stitch to secure the hem. If using a machine, use a blind hem presser foot.</p>
Hole in Your Fabric	<p>Choose a thread and fabric that matches your garment and is at least as sturdy. Cut a patch from your new fabric that is larger than the hole. Line up the patch with the hole, placing it on the back of your fabric. Sew it in place using a backstitch all the way around the stitch. Knot tightly to secure the patch.</p>
Hole in Your Sock	<p>Small holes in socks (or other clothing) can be repaired through a process called darning. This requires a darning needle, darning ball, and embroidery floss. Turn your sock inside out and place the hole over the darning ball (you can also use a tennis ball). Thread your needle with one strand of embroidery floss and tie the ends together. Matching the direction of the threads on the sock, begin to the left and bottom of the hole. You want to create a box around the hole. Pull up a loop of the sock fabric using the needle. Repeat this process, weaving between the knit of the sock. Continue upwards until the stitches reach above the hole. Repeat the process, stitching down in the next line over. Continue until a box is formed across and past the hole.</p> <p>Turn the sock 90° and repeat the process, weaving in the stiches you just made. Weave until the thread does not unravel.</p>

Chapter Five: Gardening

30. Benefits of Gardening

Gardening is a part of human history. Hunter-gatherers spent time and energy following and collecting food until they learned to grow and control it in crops. Being able to bring water and food to them conserved energy and allowed our ancestors to settle down in one spot. Villages and cities were soon built and, over time, most people relied on fruits and vegetables grown on family farms.

As time went on and technology improved, however, cities began to industrialize. Many moved to the city, where there was little room for crops to grow between the factories and small homes. Crops were grown in rural areas and shipped into city factories and shops. Though farmers were still able to grow food for their families, many people forgot the skills required to garden even a small plot of land.

In America, WWII brought the art of gardening back in many ways. Food was scarce and rationed as many men left farms and factories to fight in the war and food was shipped overseas to feed them. Victory gardens popped up in backyards and on windowsills, even in the city. These small areas gave people the opportunity to grow fresh vegetables for their family again, though on a small scale.

Today, farmers are using new technologies to grow food at pace and with a smaller footprint than ever before in history. However, many people understand the benefits of gardening and work a garden into their backyard planning, no matter how small it may be.

Gardening has many benefits. Gardens provide the freshest fruits and vegetables, free of preservatives and rich in nutrients. A large crop allows gardeners to preserve and save their foods for winter, when it is difficult to grow many foods. It helps avoid supply chain issues, as well. Children who grow up with a garden are more likely to try and regularly eat fruits and vegetables. Many people who garden enjoy knowing exactly what has been put on their food and avoid harsh pesticides and chemicals in their growing process. Gardening provides exercise and strength training in a fun and enjoyable way. Together, along with time in the sunshine, these benefits can improve the immune system, reduce weight

gain, improve sleep, and strengthen muscles. It also provides sensory input for all senses, allowing a connection with nature.

Gardens can also improve mental health. Studies show that those who garden reduce their risk of depression and anxiety. Gardening is a method of reducing stress and can boost your mood. It builds a sense of security and self-reliance, which can give a feeling of control over vital aspects of life. Gardening also helps reduce cognitive decline and improves memory because gardeners are constantly learning new skills.

Gardens can bring beauty and nature back into your life. Whether it is a large garden or a few pots on a balcony, studies have shown that having plants in your living area improves health in a myriad of ways- including improved air quality. Community gardens, farmer's markets, and gardening information groups can increase social connections and allow for sharing of information and resources.

Gardening can also provide financial benefits. If done correctly, gardening provides more fruits and vegetables for a lower cost than offered at stores. It reduces the need for packaging, marketing, and transport. Extra crops can be sold at local farmer's markets, online, or to friends and neighbors, as well, providing a source of income.

*Lesson Assignment: Choose three benefits of gardening that you would like to see in your own life. Record these in your journal. Include reasons these goals are important to you and what aspect of gardening you think may help with each one.

31. Planting Zones and Planning a Garden

Many first-time gardeners purchase a few seeds, throw them in the ground, and expect them to grow. Though this method may work sometimes, successful gardeners understand that the work begins long before the first seed is purchased. Gardens take research, planning, and preparation.

The first step of gardening is planning. Your resources (e.g. land, water, space, time, or money), climate, weather, interests, needs, and skill level will affect how you plan your garden. Some plants will only grow in certain areas. Some need more or less water. Others only grow within a specific timeframe and

temperature range. Some are very easy to grow while others are more difficult. Some take up huge areas while others can be grown in a small container.

Start by learning your plant hardiness zone. You can find an interactive map at planthardiness.ars.usda.gov. This map allows you to search by city or zip code. It takes into account average temperatures, growing season lengths, moisture levels, and soil types to give an idea of what types of plants will best grow in your area. Many plants and seed packets include a hardiness zone in which they will grow on their label.

Next, make a list of items you would like to have in your garden. Consider this to be a wish list and include everything you want to one-day grow, even if it may not be possible. Use the chart below to make this list.

Research the requirements needed for each of your wish list items. On the chart, note the hardiness zone, the space requirements, the water requirement, the skill level needed, ideal planting time, and the investment required. Investment may include time and/or money. Information may be found online, in gardening books, on the back of seed packets at your local store, or by talking with others who grow in your area. Use each of these resources until you've completed the chart for each plant on your list.

After researching, eliminate the plants that do not grow in your zone from your list. This does not mean it is impossible to grow them, just that it will be very difficult. Next, find 3-5 plants that have a low skill level and match your resources, needs, and wants. Consider time, money, space, water, and growing season requirements as you narrow down your list. Place a star next to those you choose. Beginning small, with just a few plants, will allow you time to learn the skills necessary without overwhelming you. Keep your list for next year, when you may decide to expand your garden by a few new plants.

32. Plant Partners

Now that you've chosen which plants you will add to your garden and understand the requirements needed to grow them, it's time to make a map and a shopping list. This will allow you to plan out appropriate space, planting order, and watering method. It will help you be prepared for your trip to the store, as well.

There are two common types of gardens: traditional gardens and container gardens. Traditional gardens include plots of land and raised beds. They allow you to plant all of your plants in one area that usually does not move. These types of gardens are good for areas with more land (e.g. farms, large yards, community gardens, etc.). Container gardens are perfect for areas with less space. Each type of plant is grown in its own container (e.g. pots, small planters, storage boxes, etc.). Containers have a smaller footprint and can be placed on balconies, in small yards, or inside. Containers also have the advantage of being portable so they can be moved in and out of greenhouses, to different rooms, inside or outside, and in and out of the sunshine. If you are planning a container garden, you will need to purchase appropriately sized pots/containers for each of your plants.

If you are growing a traditional garden, you will need to understand plant partnerships. Some plants grow well next to others while some do not. Successful gardeners understand and use these partnerships to improve their harvest and keep their plants healthy. This is known as companionship planting. Some examples of plant partners are below, along with benefits to the plants. You may need to do more research to find your specific plant partners.

Tomato and basil – Basil repels insects, protecting the tomatoes

Corn and lettuce- Corn provides shade for lettuce, which is a partial-sun plant

Garlic or marigolds along the outside of the garden protect the plants within from pests. Mint in containers near other plants can have the same benefit.

Corn/Sunflowers and Peas/Beans/Cucumbers- The taller plants provide support for the peas/beans/cucumbers to grow onto

Parsley and tomatoes- Parsley attracts pollinators

Beans correct nitrogen levels in soil and can benefit tomatoes or corn

Chives and carrots- Chives repel insects and improve the flavor of carrots

Radish and cucumbers- Radish repels pest from cucumber plants

In addition to companion plants, there are some pairs that do not do well together. Understanding this can help you organize your garden for maximum efficiency. Some examples are below. Research further to find foes of the plants on your list.

Corn and tomatoes- can become infested with pests that spread from one to the other

Peppers and cabbage- Cabbage inhibits growth of peppers

Potatoes and zucchini- Potatoes pull nutrients from the soil that zucchini needs

Carrots and parsnips/dill- Parsnips and carrots can share diseases and pests while dill can affect the flavor of carrots

Beans and onions- Onions inhibit the growth of beans. Peas are also affected.

Pumpkins and squash- Both grow outwards, taking up space and can cross-pollinate

*Lesson Assignment: Use the space below to map out your garden. Consider how much space you have, how much space each plant will take up, and companion plants/foes. Plan out how many of each plant you would like to grow and where each plant will go.

33. Prepping, Planting, and Watering

Now that your research is done and your garden is planned, it's time for the hands-on work to begin. Gather your supplies and begin preparing your garden.

In traditional gardens, this may mean rototilling, plowing, or breaking up the ground with a shovel. This is the perfect time to add compost, potting soil, sand, or fertilizer to your garden as it will get mixed in as you work. Be sure to check the requirements of each of your plants before adding to your soil. For example, carrots require a soft, sandy area, hard clay may need compost and/or potting soil added, or nitrogen, phosphorus, and potassium levels may need to be improved. Soil testing kits are available in home improvement and gardening shops and can help you better understand the nutrient levels in your soil. Breaking up the soil provides a soft, fertile area for roots to establish themselves. Next, you may need to create rows, mounds, or watering divots, depending on what type of plants you are using.

Likewise, container gardens and raised beds will need healthy soil and proper drainage. Begin by ensuring your containers have drainage holes at the bottom. This will prevent sitting water and protect your plants from rotted roots. If your container does not have these holes, it may be necessary to drill some in. Next, provide a substance that allows for water to drain through. This may be sticks, pebbles, gardening rocks, or a combination of each. Place these at the bottom of the container in an even layer. At the top, add a deep layer of soil that reaches 2-3 inches below the rim.

Next, prepare your watering system. You may want to run soaker hoses down rows, water with a watering can, or provide drip irrigation. Consider the needs of your plants, your resources and space, and the amount of time you want to spend watering your plants. You can also add a timer to some watering methods, allowing for more uniform and less-forgotten watering days. Preparing your watering method before planting allows you to be ready to water as soon as your seeds/plants are in the ground. Test your watering method, ensuring that the ground becomes moist, but not saturated, with water.

Finally, consider your weed control methods. You may want to spray a large area with herbicide weeks before planting (check the label for directions), lay a weed-blocking cloth down, or provide an appropriate ground cover. You may prefer

using a hoe or weeding by hand. Gather the supplies and finish the preparations needed for weed protection before planting.

Finally, use your map to plant each seed or plant in your garden and/or containers. Check the instructions on the package for proper plant spacing, depth, and planting times. In Utah, a general rule is to plant your garden on Mother's Day weekend. Most years this will allow the longest growing season and avoid the final frost of the year. However, different crops, circumstances, and containers will require adjusted times. For example, onions, garlic, and potatoes can be planted in the late fall and picked in the spring. Some plants will require that more than one seed be planted together. This allows you the best chance at growing a healthy plant. When the plants are big enough, you simply thin out excess plants until only the healthiest one is left in the proper space. Adding labels near each planting will help you remember what you planted there.

*Lesson Assignment: Prepare and plant your garden, remembering to water it each day.

34. Starting to Grow

As you water your garden each day, you will become very familiar with where each planting is. It will also allow you to watch for new developments. Plants will begin to establish roots and, eventually, begin to grow larger as time passes. Seeds, too, will grow roots. Then, they will send shoots upwards that carry the leaves necessary for photosynthesis to occur. This process helps the plant gather energy from the sun and continue to grow.

Watering the correct amount each day for each plant will ensure that roots are firmly established. This will protect the plant from windstorms and disease and allow it to collect needed nutrients. Occasionally, you may want to test your soil and add fertilizer according to your findings. Fertilizer comes in different combinations of nutrients and you can customize what you feed your plants based on your specific needs.

*Lesson Assignment: Make a note of when certain plants start to pop up. This can help you predict harvest times and keep track of which plants are most successful. After most of a certain plant type has grown through the soil, note any areas that may need to be re-planted, thinned, fertilized, or have watering adjusted.

35. Supporting Plants and Controlling Pests

During the time small plants first appear above the soil, they are most vulnerable to pests and disease. These tiny plants have not yet established strong enough roots, stems, or leaves to fight off infection or insects. Your pest control plan and implementation must be strongest during this time.

Each day when you water, check for any pests or signs of illness. Wilted or yellow leaves, small bugs or eggs on the plants, pieces of the leaves missing, or unexpected and unexplained plant death are signs that there may be a problem. Be sure to check the bottom of leaves, as well. Common pests include worms and caterpillars, aphids, ants, mosquitos, grasshoppers, earwigs, and slugs. Prevention and treatment for each of these pests will be specific to the type and intensity of the infestation. Some gardeners use a broad-spectrum pesticide. Others prefer more natural methods such as spraying soapy water onto plants, introduction ladybugs and/or praying mantis, or including plants that act as a natural repellent. Below is a list of treatments for common pests. However, you will need to research your specific pest problem to find the best solution.

Worms/Caterpillars- Usually, you can see these insects or the eggs they came from. Bites taken from leaves or holes in fruit. However, some worms and most caterpillars can be beneficial (pollinators and fertilizers) in smaller populations. Troublesome amounts should be removed and relocated by hand.

Aphids- These small insects come in a variety of colors and are difficult to see because of their size. Sticky sap, wilting leaves, and smudges on leaves and stems are signs of these pests. Ladybugs, lacewings, bug repelling plants, and a soapy water spray can help prevent or treat an infestation.

Ants- Usually not harmful to the plant, but can cause painful bites to the gardener. Signs of ants include sightings and evidence of mounds. They can usually be treated with an ant-specific herbicide/bait or left alone to avoid bites.

Grasshoppers- This jumping insect comes in a variety of colors and sizes and is most easily recognized by its characteristic hopping. Large amounts can devastate crops. Reducing weeds and encouraging natural predators (lizards, spiders, and birds) can help control populations.

Mosquitos- Another pest that does not generally affect the plant, but can make the gardener miserable. Mosquitos are usually heard and felt (bites) rather than seen. Applying mosquito repellent to the body, eliminating standing water, and planting citronella can deter these pests.

Earwigs- Also known as pincher bugs, these long, brown insects have two pincher-like appendages on their rear ends. They cause damage to leaves, flowers, and fruit of plants. They are nocturnal and like damp, hidden places. They can be reduced by adding a shallow bowl of olive oil or damp newspapers to the area. This will attract the bugs, allowing you to kill them by drowning them in soapy water.

Slugs- Eaten plants and trails of slime are signs of slugs. Slugs come in a variety of colors and sizes and can be prevented by placing copper barriers around plants, especially when young and vulnerable. Additionally, bowls of beer can be added around the garden to capture and drown slugs.

It is important to remember that not every insect is harmful to your plants. Pollinators, such as butterflies, wasps, and bees help growth of fruit/vegetables through the fertilization process. Large, colorful flowers encourage pollinators to come to your plants, benefiting the garden as a whole. Additionally, ladybugs, spiders, crickets (in small populations), and praying mantis can protect your garden from invasive pests, as they are natural predators of these types of bugs.

Disease can also put your crops in danger and ruin your harvest. Some common diseases, their symptoms, causes, and treatment can be found below. Again, you will need to research your specific circumstances to find solutions for your garden. It is important to monitor your garden throughout the seasons for signs of pests and disease.

Blossom rot- Characterized by rot that browns and ruins the ends of fruit. Common in squash and tomatoes, this can affect the taste and quality of your harvest. Adding calcium and ensuring proper and consistent watering can help prevent this disease.

Powdery mildew- This fungus can affect several different types of plants and shows as a white film on leaves and flowers. It can be treated with a commercial fungicide or by spraying a mixture of 1 quart of water to 1 tsp. of baking soda

directly onto the infection. Infection should be treated quickly, as it is highly contagious.

Rust- Characterized by rust-color spots on leaves. This fungus spreads quickly and can be treated by commercial sprays. However, if the infection is too severe, infected plants will need to be removed and burned.

Some, like beans, peppers, tomatoes, and cucumbers, may need supports in place for encourage growth. Many garden and home improvement stores offer trellises and tomato cages, but supplies you already have may work as well. Vine-like beans and cucumbers may be supported by a home-made trellis consisting of wood and wire fencing, posts with string reaching between them at 1 foot intervals, an upside-down tomato cage, or even a garden arch. Help train your plants to grow upwards by tying ends of shoots gently to your trellis. Peppers may be support by tomato cages or by placing posts on either side of the plant and adding string/twine around it. This will ensure healthy plant growth, easy harvest, and support in storms.

Sources Cited: Guetebier, A. (2023, June 8). *12 of The Most Common Garden Pests*. Bob Vila. Retrieved August 9, 2023, from <https://www.bobvila.com/articles/common-garden-pests/>

*Lesson Assignment: Check your garden for diseases and pests. Research and treat as necessary. Continue this process throughout the season, helping your plants to stay healthy. Additionally, gather supplies and build support for any plants that may need it.

36. Harvesting

Depending on your crop, harvest time may come all at once or over a continuous time period. It may take a few days for your harvest to be ready, or it may take months. Learning how to tell when your crop is ripe for harvest, how to harvest it, and how to encourage a plant to continue to produce are key skills for every gardener.

As you water each day, check on your plants. Look for signs of ripe fruits/vegetables and be ready to pick. The best time of the day to do this is in the morning. Be sure that you pick each item using the correct method. Gentle picking will prevent damage to the plant and disease and encourage new growth.

If needed, using clean pruning shears to pick ripe produce. Likewise, be careful that you don't tread on or damage plants as you walk. Use produce boxes, baskets, or buckets large enough to hold the produce to protect it from bruising and scrapes and enable easy transport from the garden to your kitchen. Finally, don't expect perfect produce. The produce you see in stores has been carefully picked and sorted. Only the very best pieces are shipped. Your garden may have times that grow to shapes, sizes, colors, and arrangements that don't match what you normally see. Don't be afraid to use these items, as many times they are still good and nutritious.

*Lesson Assignment: Research the proper harvesting methods for the plants in your garden. As your fruits and vegetables ripen, practice harvesting using these methods. Cook several different recipes using what you've grown.

37. Preservation Techniques

You quickly learn how fast some plants can grow food. At times, gardeners feel overwhelmed with the amounts of producing coming from their garden. They cook it in any way they can imagine, sell it, and eventually, give it away just to get rid of the extra. Historically, this extra was preserved for the winter months when fewer crops are able to grow and produce. This ensured that families would have all kinds of produce, even as snow fell on the ground.

Today, technology has increased and improved the methods used to preserve foods. Choices vary and include cold storage, freezing, canning, dehydrating, or freeze-drying. Each method has its own advantages and faults. Some methods may be appropriate for certain crops but not for others.

Cold storage is a method that has been used for hundreds of years. This method simply places produce in a cold, dark, but relatively dry area. The area should not freeze during the winter and should be free of pests. Caves, root cellars, and basements have been used for cold storage. There are two different types of cold storage: wet and dry. Plants like winter squash, pumpkins, and onions prefer wet storage. This means storing the produce in a space off the floor without touching each other, as in spread out on a shelf in a dark, cool area. Dry storage, for root crops like potatoes, carrots, and cabbage, can be stored in the same area.

However, they should be packed into a container that allows the vegetables to breathe and uses a filler (e.g. sawdust, sand, newspapers) between the layers of

produce. Before placing produce in cold storage, it is important to remove any diseased or rotting items and give produce a few days to dry out before placing them in storage. Items should not be left in cold storage indefinitely and should be used within a few months or preserved using another method. They should also be checked regularly for signs of rot or pests. Rotten items should be removed immediately.

Freezing is a common, though more modern, way to store excess fruits and vegetables. Freezing allows an extended preservation and keeps most of the produce's original flavor and nutrients. Before freezing, items should be washed thoroughly and inspected for bruising, pests, and rot. Damaged areas should be cut off and discarded. Then, cut the produce as you normally would to use. This may include slicing, dicing, or keeping it whole. Preparing food in this way will save you time and effort when you are ready to use it and help ensure uniformly sized pieces which freeze and thaw together. Fruits can then be directly placed into a freezer-safe bag, or vacuum-sealed. Vacuum sealed items avoid freezer burn and preserve fruit more safely. If possible, freeze in individual servings so that you only thaw what you need and reduce waste later. Vegetables should be blanched before freezing. To blanch, place the items into a pot of boiling water for 1-2 minutes. Quickly transfer them to a bowl filled with ice water and allow them to cool. Then, drain, dry, and package for the freezer as you did the fruit. Ensure that frozen foods don't thaw before you are ready to use them, as this can result in bacteria growth. The safest way to thaw produce is in the refrigerator overnight.

Canning is a traditional method of preservation that involves sealing produce, and usually a syrup or brine of some kind, in a glass jar. Canning is usually done in half-pint, pint, or quart-sized portions. Alternatively, metal cans (e.g. soup cans) can be used with proper equipment. Canning allows for produce to be preserved sliced, diced, pickled, or prepared (e.g. apple sauce, soup, pasta sauce, pie filling, jams and jellies, etc.). Canning requires jars, lids, rings, a large pot, ingredients specific to the recipe you are using, specific canning tools (e.g. canning funnel, jar lifter, canning rack) and careful consideration for sanitation. For certain items, it may also require a pressure cooker rather than a water bath. It is important to follow recipes and instructions carefully, as food can easily spoil if not properly sealed. Sealed cans can be stored for up to 18 months in a cool, dark area,

allowing you to have summer fruit and vegetables any time of the year. Seals should be regularly checked and any signs of botulism (e.g. leaking, bulging, cracked, swollen, discolored, moldy). If signs are present, discard the item without using it.

Dehydrating is another historical method of preservation. Dehydrating simply dries the produce until there is little to no moisture left in it. Dehydrating allows for long-term storage as long as items are placed in an air-safe container, a cool place, and are exposed to little light. Items can be dehydrated using a dehydrator machine, an oven, or the sun. Proper preparation includes washing produce, slicing or dicing it into uniformly sized pieces, placing it onto a dehydrating tray in a single layer, and waiting until the cycle is finished. Additionally, foods may be made into fruit leather, which means adding sugar, spices, and other flavors and heating the mixture before dehydrating. Once dry, items should be removed with clean hands and placed into a bag, jar, or other air-tight container to prevent exposure to moisture, pests, and bacteria.

Freeze-drying is a modern method of preservation that freezes produce to a very low temperature and uses a vacuum to pull the moisture out. This requires specialized equipment, electricity, and time. Most dryers run a cycle every 24 hours, though times vary based on moisture content of the produce being dried. Additionally, items such as eggs, pastas, candies, and some meats can be preserved using this method. Produce should be washed and prepared as you would if you were going to use them. Pieces should be uniform in size. Once prepared, items should be placed onto the trays in a single-layer. The user then sets and begins the cycle. Once finished, the produce should be room-temperature (not cold) to the touch. It should be stored in an air-tight container in a dark, cool area. Freeze-dried items can be stored for several years and can be used straight out of the bag or after rehydration.

*Lesson Assignment: Research and try several different methods of preserving your harvest. Try different recipes and make a note of which ones work best for you. Then, record your favorite ones with your family recipes.

Chapter Six: Budgeting

38. Calculating Your Income

The biggest factor in budgeting and managing your finances is understanding how much money you are taking in. Income, or the money you get from working, selling goods, or investments, is one of the resources at your disposal for getting the things you need or want.

There are three types of typical income. Salary, or a set amount that you receive over a given time. Usually, salary is annual and includes the responsibility of working at a job. Though hours are not set, salaried employees often enjoy benefits beyond pay. Some of these benefits include health insurance, retirement matching, and paid holidays and/or time off. Salaried employees usually have a set schedule, but may end up working more or less hours as needed without receiving extra pay. Employees who earn a wage are often paid a set amount for every hour they work. For example, a worker may earn \$10 for every hour and work 40 hours a week, earning \$400 per week. The more hours a worker clocks, the more money they make. Depending on the job, wage workers may also be given benefits. Most salaried and waged workers are paid bi-weekly, or every two weeks. Alternatively, commissioned workers are paid a certain percentage of what they sell. For example, many car salesmen are commissioned. They receive some of the money from every car they sell.

Other income types include passive income, or money you make from a product or service that you set up once and then sell online without much further work, and payouts from investments. Passive income, (e.g. worksheets, video lessons, or drop shipped items) requires an initial set-up and then runs almost on its own once set up. Many people use this as a secondary income to their main job. Payouts from investments may include dividends, share buybacks, pensions, or annuities. These payments are made to you based on your investments and how well they do financially.

Income can be calculated as gross income and as net income. Gross income is how much you make each paycheck before taxes and other fees are taken from your check. If salaried, this is the number your employer agrees to pay you. If you are a wage worker, this can be calculated by multiplying the number of hours you work by the amount you are paid each hour.

Net income is the money you bring into your account after taxes and fees. These taxes and fees are dependent upon several factors and should be carefully considered when taking a job and setting a budget. If calculated incorrectly, you may end up owing the government money at the end of the financial year. Alternatively, you may receive a refund from the government if you over-pay. Your financial advisor or accountant can help you determine the correct deductions. Your employer should have you fill out a W9 form before you begin work to help calculate your taxes. Additionally, your paycheck may have other fees, such as insurance payments, HSA account payments, or retirement payments that you set each year with your employer. These will be taken out of your paycheck before your check gets to you. After taxes and fees, net income is the money you have available to you for spending, saving, or investing. Your net income is the number you should set your budget with.

To calculate your income, make a list of all the money you have coming in as a result of your job, investments, or passive income projects. Write down the source of your income, the gross amount, the taxes and fees taken out, and the frequency you are paid this amount. Write down any commissions and the average amount and frequency. Write down any extra income you may regularly get (e.g. yard sells, farmer's markets, etc.) and how often that money comes in.

Next, calculate how many of each payment you receive over the course of 52 weeks, or one year. For example, if you earn \$10/hour and work 40 hours/week, and are paid bi-weekly, you earn 26 payments of \$800 in gross income, and \$20,800 a year. However, if you pay \$100 in taxes and fees each paycheck, you receive \$600/month in net income and \$15,600 a year in net income.

Once you've determined how much you make annually from each net income source, add them together. This is your total net income for a year.

****Lesson Assignment:** Use the form below to calculate your average annual net income. (See the example provided for more information)

39. Making a Budget

After you've calculated your annual income, you can begin to create your budget. A budget is a list of goals for your financial resources. It should reflect how much you make, how much your bills are, and how much you are willing to spend in each category of needs and wants.

As most bills are paid monthly, it is easiest to create a budget for each month. To do this, divide your total annual net income by twelve. This will give you the amount you have to spend each month. Use a green pen to add this number on the chart below in the row next to "Total Monthly Income." This is the amount you have each month to pay bills, purchase food and other wants, and care for those who depend on you each month.

While every budget will be slightly different, the 50/30/20 rule is a good starting point in managing a budget. This rule states that 50% of your income should go to the things you need. Needs including housing, food, clothing, childcare, utilities, health costs, and other necessary things. 30% of your income should go to wants such as hobbies, entertainment, and extra things that are not necessary for your survival. Finally, 20% of your income should go to your future financial needs. This may include retirement, paying off debt, a savings account, or investing. It is recommended that your housing be no more than 25% of your income and your savings be 10-15%.

On the chart below, list your needs in a red pen and your average monthly cost of each. An example has been provided. Include the title of your expense and the current amount you spend. Then, in pencil, add amount you will take out of your budget for this expense. In the final column, write the number you get when you subtract this expense from your total monthly net income. This will be your running balance. Each time you add a need, subtract that amount from the number above it in the last column.

After your needs are taken care of, add your wants in with an orange pen. Include the amount you spend on these each week and continue to subtract that total from the monthly balance.

Next, add in your savings and future-needs expenses in a blue pen. This can include a savings account, debt pay-off, retirement, or other investments. It is

recommended that you save at least 3 months of expenses in your account to start.

Finally, if you'd like, you can also include a "Giving" category to include any charitable donations you may want to make to churches, non-profits, or individuals, and deduct that from your running balance.

By the time your needs, wants, savings, and giving are listed, you should have a running balance of \$0 or more. If your running balance is below \$0, you will need to re-work your budget. Go back and see if there are areas where you can decrease your spending amount. Perhaps you can purchase fewer clothing items, move to a less-expensive housing, or participate in cheaper activities. Continue to cut your budget back until your running balance hits \$0 or more at the end. Ensure that your needs are fully met, cutting back on wants as much as you need to.

When you are satisfied with your budget, begin to look at it as your financial goal chart. Each month, allocate the correct amount of money to each expense, track your spending, and try not to go over-budget in any category. Remember to save, so that big expenses are covered should they come up. At the end of each month, check your spending against your budget and make adjustments as needed.

Additionally, you may want to split your monthly expenses between paychecks. Many people who are paid bi-weekly, have set a budget that follows their paydays. Each payday, they allocate certain money from that check into certain bills, allowing them to pay as their income comes in. Be aware of due dates on bills when doing this, as you want to avoid late fees.

****Lesson Assignment:** After creating your budget, plug your total needs, wants, and savings into a pie chart using software like Microsoft Word. Calculate how close you are to following the 50/30/20 rule and make changes to your budget if needed.

40. Living within your Means

You've set your budget and are now working to live within it. As you gain more responsibilities, this becomes more difficult because you need to financially support more and more needs. As a teen, most of your finances go to wants and savings, while your parents cover the majority of your needs. Then, you may add car expenses, then housing, then childcare. Soon, your paycheck is taken up by a list of things you are paying for.

As you grow, make changes to your budget to reflect any new expenses or income. Try to follow the 50/30/20 rule, always covering needs and saving some of your money for the future.

Above all, strive to live within your means. Never spend more money than you bring in and avoid debt as much as possible. There are two basic ways to do this: spend less or make more.

Spending less does not mean abandoning your needs or savings for the future. In fact, it means ensuring you cover these in a smart and frugal way. Rather than eating out every night, cook at home. Instead of going to the gym, workout at home. Rather than purchasing new clothing, visit a thrift store. Check prices at the store and compare the price per ounce to save. Buy in bulk when you can, if the price is right. Make gifts with supplies you already have rather than buying them. By making small, simple changes in your spending habits, you can meet needs and spend less.

Spending less will help balance your budget and get you closer to your future goals. However, sometimes it isn't enough on its own. With prices rising every year, taxes increasing, and your responsibilities increasing, you will want to increase your income. There are a few ways to do this.

First, you can add a second job or side-hustle. While this may work short-term, it can also lead to burn-out or you not getting enough downtime. Be careful to preserve your health, as well as your financial situation, and find a balance.

To increase your income, you may want to consider additional education. A college degree, certain certificates and trainings, or a technical school can help you become better trained for your job, increase your chances of a promotion,

increase your value to your company (convincing them to pay you more), or allow you to look for another job that pays better. As a general rule, you should always be working to learn a new skill.

Additionally, experience makes you more valuable as an employee. While education helps increase your skills, time spent performing those skills helps you make fewer mistakes and work more efficiently. When applying for jobs or discussing pay raises, list work experience you have. Take the time to learn from others in the trade, work alongside them, and increase your experience through volunteer work, other jobs, or by teaching others what you know.

Networking can increase your pay, as well. Spend time getting to know others in your industry. Build relationships with people who do the same type of work, even if they are from different companies. This networking allows you to work together, call on each other for help, and build trust. It may provide additional jobs, bring in new work, or connect you to people who are looking to hire new employees.

Performance reviews can also help you increase your pay. While you are at work, be dedicated to your job. Be on time, complete the tasks you are assigned well and efficiently, and be willing to help others around you if needed. Be respectful of customers, co-workers, and managers and resolve conflicts in a calm and respectful manner. Show your professionalism in all situations and be open to learning new skills. Show that you are committed to working as a team and willing to help the company grow. Consider offers for promotions carefully and with the understanding that they often come with increased responsibilities or time as well as increased pay.

If you have done all these things and your paycheck hasn't increased, go directly to your boss and ask for a raise. Be prepared to explain why you think you deserve a raise. Point out new training, education, or experience you have, discuss money or customers you've brought into the company, point out ways you've decreased company spending, explain networking relationships that may be beneficial, and point out how your daily performance brings value to the company. Be reasonable in the pay increase that you ask for, pointing out that similar pay is being given in the job market by other companies.

Finally, if your income needs to increase and you are feel like your current job cannot give you this, consider changing jobs. Start looking for jobs you are qualified for, sending in applications and resumes, and attending interviews. Continue working your current job until you accept an offer from another company. Give your current job a two-week notice, if possible, before leaving and leave in a respectful manner, thanking them for the opportunity and the experiences or skills you've gained since starting there.

****Lesson Assignment:** Ask your parents to share their budget with you. Discuss how they've made changes to ensure that their income covers family needs over time. Ask them what changes they see coming in the next 5 years. Then, take the time to learn a new skill or gain work experience that may help you with your future financial goals. Examples: volunteer at an animal shelter/rescue if you want to be a vet, work on a farm if you are interested in agriculture, or take a coding class if you want design video games

41. Saving for an Emergency

Your budget should've included a savings category. Savings is a way to protect your future self and your future finances. It allows you to cover unexpected expenses (e.g. health issues, car problems, home repairs, job loss) and helps you to avoid debt by planning for big expenses (e.g. new car, birth of a child, college tuition).

It is recommended that you have 3-6 months of expenses in a savings account. This means that your monthly budget, multiplied by 3, is the minimum amount you should save. By doing this, you avoid having to use a credit card or loan should a big expense or unexpected event happen. This emergency savings account should not be touched except in the event of an emergency. The money should sit in the account and gain interest. If an emergency occurs, you should replace the money you use from your savings account as soon as you can.

It's a good idea to have a second savings account to save for large purchases. This account does not factor into your emergency savings at all. Rather, it is a place to keep your money until you can afford an expensive item. This may be new

furniture, a new car, a down payment for a new home, tuition for school, a wedding, or another large expense. This account allows you to save over time and then spend the money when you are ready. It helps you prevent additional debt you may incur if you were to take out a loan or put a charge on your credit card. Debt comes with interest, meaning you will pay more than an item is worth if you use debt to purchase things. With a few exceptions, you should never buy something if you currently cannot pay for it in full.

Additionally, keeping some cash at home in a safe place can help build your savings, but make the money available to you quickly. In some emergencies, you may not have the time or ability to visit a bank. Keeping a few thousand dollars in small bills around your home helps you be able to purchase items you may need in extreme situations.

****Lesson Assignment:** Review your budget to ensure you are saving 10-15%. Calculate your monthly expenses for 3 months and make a goal to save that much in a savings account. Be sure to increase the amount if your normal expenses increase. Additionally, start another savings for a future purchase, ensuring you have the money to pay for it in full before you buy it.

42. Investing and Scams

Another way to potentially increase your income is to invest. There are several different ways to invest your money, as investing simply means to put your money into something you expect to earn more money from. Investments may include stocks, bonds, mutual funds, exchange-traded funds, real estate, or businesses. Each of these types of investment have their own risks and potential benefits and there is no guarantee that you will earn money with any of them. However, if you are patient and diversify your investments, chances are your money will grow.

Stocks are a piece of a company. Companies break their ownership into pieces and sell each piece for a certain price to investors. These investors provide the capital (money) the company needs to operate and grow. If the company does well, the stock holders can sell their stocks for a profit. If the company fails, stock

holders may have to sell at a lower price than they bought, losing their investment and any gains they would've earned. Each day, stocks are bought and sold on the stock market, allowing anyone who wants to invest to participate. Stock prices depend on several factors including how much the company has in assets, how much profit it is making, and how much confidence the public has in the company. Short-term trades are bought and sold quickly as the market changes. The goal is to buy stocks at a low price and sell them as soon as your wanted profit is obtained. Long-term stocks, or stocks you buy and hold over many years, have an average profit for stock holders, especially if your stock portfolio is diversified. To diversify your portfolio, you should purchase stocks from various companies, at different pricing levels, and in various industries. This practice allows losses on some stocks to be absorbed by the gains on others.

Bonds are a loan you give to a company or government, with the expectation that you will be paid back with interest. Bonds can usually be purchased at a set amount, for a set length of time, and at a set interest rate. When you purchase a bond, your money is used by the entity you purchased it from for a certain amount of time. At the end of the allotted time period, that entity must send you the money back, along with interest. Bonds are far less risky than the stock market. However, the interest earned is almost always lower than investing in stocks.

Stocks and bonds can be combined into a mutual fund, or account that is managed by a company that invests for you. This company takes the money you put into your fund and purchases stocks and bonds for you at a fee. It also sells short-term investments when it is beneficial to you, ensures your portfolio is diversified, and manages the risks for you.

Index funds, which are a type of mutual fund that follows market trends instead of being actively managed by a company, works much the same way. However, instead of being managed in a detailed way, it follows the market trends. These funds come with smaller fees and fewer risks, however their potential earnings are lower than other mutual funds. On average, an index fund gains 7% of your investment each year. Over time, this fund can grow in size by adding more funds and through gains you earn.

An exchange-traded fund is much like a mutual or index fund, and bundles several investments into one account. However, ETF's are traded throughout the day, like a stock, and can be purchased for a share price. The entire package is traded, rather than individual investments within the package. ETF's come with a lower investment minimum, allowing investors with smaller budgets to participate.

Real-estate is another way to invest your money in the hopes of financial gain. By purchasing land, housing, or retail buildings, you have the opportunity rent out or sell at a later date and increase your investment. Real-estate gives you physical assets you are responsible for. This means that you will have to work to protect and maintain your investment. Additionally, it means that physical location and physical condition will affect the return on your investment as much as market fluctuations. Real-estate investments may also require improvements and renovations to be made, making the investment more than your initial purchase price. However, over time, real-estate is a low-risk investment as most land and housing increases in value over time.

Business investments are high-risk, but potentially high-return, investments. These investments mean putting your own money into a business to help it succeed. Often, these investments are needed when you start or begin to grow a business. This may be your own business or you may choose to invest in someone else's as a partner or share-holder. As 20% of businesses fail in the first year, 50% fail in the first five years, and 65% fail in the first 10 years, business investments carry a lot of risk. However, if the business can make a profit, it's possible to gain large profits from a potentially small investment.

Another way to protect your financial future and present is to avoid scams. Many people work to steal money and other resources in various ways. Identity theft, fraud, extortion, skimming, and ransomware are some common types of scams.

Identity theft occurs when someone uses another person's information (e.g. social security number, name) to obtain money. Often, these scammers take out loans in the victim's name and keep the money, leaving the loan to default. Due to the fact that the victim's information is present, they are held responsible for that loan. Scammers may also obtain a person's bank account information, credit card information, or home or auto title information. To protect yourself from identity theft, keep your personal information safe. Don't share account or card

numbers, pictures of titles or cards, or information about passwords and log-ins. Always check to ensure a business is legitimate before purchasing anything with a credit card, especially online or over the phone. Check your credit score and bank accounts regularly to catch any unauthorized activity quickly and report it to your bank.

Fraud can occur anytime of the year, but peaks around holidays, big life events, and shortly after disasters. Fraud is simply the taking of someone's money or resources under false pretenses. For example, a fake charity claiming that the money will be used to help their cause, but the caller actually keeps it. Fraud requires that the victim hand over payment or payment information. Before making any payments or donations, always research the individual, business, or charity you plan on giving money. Ensure that you talk to a real person, ask them to verify how they got your information, call the business/charity phone number listed on the website (rather than taking a call), and discuss types of payment accepted and cancellation policies. All charities and businesses should be registered with the government and carry an identification number from a government entity. These are easily searched online. Look for customer reviews and learn about the history of the business/charity. Always be wary of people who contact you, are reluctant to give you time to think about your donation or call them back, demand payment upfront, cannot give you a website or phone number where you can do research, or seem off in some way. Often scammers will call you, offer a deal too good to be true, or pressure you with a short timeline. Fraud can also consist of someone sending you money and asking for a refund of that money or an amount higher than they sent you. This gives the scammer access to your cash and, possibly, your account information. To avoid this, always check with your bank before issuing a refund, be careful about cashing checks from people you don't know, and be wary of payments platforms that are hard to trace. Always understand your bank and card policies and never give out information that you don't need to, especially if they contacted you.

Extortion uses force, violence, or intimidation to get something from the victim. Sometimes they threaten you with legal action, exposure of embarrassing images or actions, or physical violence to scare you into giving money. Sextortion is a common type of extortion. In this case, scammers use real or generated images of the victim that are sexual in nature. They threaten to release the images to

others if you don't pay. The best way to avoid extortion is to avoid putting yourself in a compromising position. Don't engage in immoral or illegal activities, share images or videos, or associate with people who do these things. Extortion, like all scams, is a crime and can be reported to trusted adults or law enforcement, whose goal will be to keep the victim protected.

Skimming involves stealing payment card information as a payment is being made. Skimmer machines can be placed over regular card readers at stores, gas stations, or in small shops. They look like the original card reader and allow your authorized payment to go through. However, they also collect the information needed from your card (card number, expiration date, and security code) for payments and send it to the scammer. From here, the scammer can use that information to charge your card for any purchase they'd like and you are responsible for paying it. To avoid this scam, be on the lookout for anything on card readers that looks different. Some businesses place security tape on their readers and if that tape is not present or broken, it can be a sign a skimmer has been installed. Skimmers sometimes wiggle or shake when placed on top of card readers, so you can gently nudge a card reader to test for movement. Cards with chip readers are less likely to be compromised.

Ransomware, phishing, and other viruses can be used in scams, as well. Ransomware infects your computer and locks or encrypts everything on it so you can no longer access it. You are then contacted and told that, to remove it, you must pay a ransom. Phishing is another virus or code that infects your computer, stealing information, images, or videos from you. Phishing may also install ransomware or other viruses at the same time. To avoid these, install a good antivirus and firewall on every device. Be careful about any downloads. Never open an attachment from someone you don't know.

Sadly, scams have become an unavoidable part of life and you must always be wary of them. They may come through phone calls, texts, emails, or personal contact. Following the basic advice above can help you avoid many of them. Trusting your feelings, doing your research, and being cautious about items sent to you may protect you from financial harm. Reporting scams quickly after realizing they happened can help protect you and others in the future. If something

doesn't make sense, always take the time to look into it before sharing any information.

*Sources Cited: <https://www.nerdwallet.com/article/investing/how-to-start-investing>,
<https://www.commerceinstitute.com/business-failure-rate/-:~:text=According%20to%202024%20data%20from%20the%20U.S.%20Bureau,businesses%20fail%20in%20their%20first%20year.%20They%20don%E2%80%99t>.

**Lesson Assignment: Use \$20-50 to invest in a business of your own. This may be a product or service you sell at a stand on your corner, in your neighborhood, to your parents friends, to you own friends, at a local children's market, or online. Take time to carefully consider your expenses, inventory, selling prices, and audience. Then, work to make more than your initial investment and make a profit.

43. Retirement

Though most of us don't want to work our whole lives, less than 50% of American citizens have a retirement account. These funds, set aside solely for the purpose of supporting you and your family after you stop working, can determine when you retire and what your lifestyle is like after you retire.

Many people don't think about retirement until later in life. However, opening a retirement account at 18 and making regular deposits into the account is the best way to be prepared for the future. No matter your age, the best time to start saving for retirement is now. The earlier you start, the longer your money has to grow.

While there are several types of retirement accounts, the most well-known types are 410k, IRA, and pension.

A 401k is an employee sponsored retirement plan. It is set up through your employer in your name. Some companies will match 401k contributions the employee makes, effectively doubling the amount you put into your retirement savings. A 401k contribution is taken from your paycheck each pay period and deposited into your 401k account. A traditional 401k allows contributions to be put in before that money is taxed, but all withdrawals are taxed as they are taken out later. A Roth 401k pays contributions after taxes are taken out of the money,

allowing you to withdraw the money later tax-free. The money in your 401k is then invested (e.g. into an index fund) and gains returns on its investments over time. The government sets a maximum contribution limit each year, outlining how much you can invest into your 401k. Other accounts like a 401k are 403(b) (for school or charity employees), a 427(b), (for certain government employees), or a Simple 401k (for small businesses and their employees).

An IRA, or individual retirement account, can be opened by anyone, however some businesses offer an IRA and may contribute payments to it each pay period. Employees can also contribute to an IRA on their own, with a maximum contribution limit each year. Like a 401k, there are different types of IRA's including simple, Roth, traditional, SEP (for the self-employed), and spousal (for a spouse that has no income). The money in these types of accounts is also invested and adds to your balance as these investments make money.

A pension is an account into which payments are made as the employee works. After retirement, a pension gives regular payments to the employee in set amounts. A pension is like a paycheck you get from your savings after retirement. Pensions are common for government employees and labor unions and may include rules about who can inherit the money if a person dies before their pension is used up.

Additionally, social security is a payment that is taken from your paycheck each pay period and given to the government. Those funds are dispersed to the retired or disabled, who cannot work, on a monthly basis. Social security is a set payment based on your previous income, age, and other factors. It often is not a large enough payment to replace an income and should not be used as your sole retirement plan.

***Lesson Assignment:** With your parents, make a plan to set up a retirement account when you turn 18. Discuss a monthly payment that can be automatically paid to this account and make a plan for how that bill will be covered. Then, use an online tool to calculate how much this payment will earn you by the time you are 65 (average retirement age). Try to adjust your budget to reflect your contribution to this account and begin saving the money if you can.

44. Health Savings Accounts

You've begun to build your emergency savings account and have future goals for a second savings account for larger purchases. You've learned how to begin saving for retirement. Another account you should consider is a health savings account. This account is, as its name states, for health expenses.

In the U.S., medical debt totals \$220 billion dollars with 6% of adults owing more than \$1,000 in medical bills. Medical expenses are often an unplanned financial burden. They are expensive and not everything is covered by insurance. Most insurance has a deductible, or amount you have to pay before they cover medical expenses. Add that to the fact that people who are sick or injured have a hard time working to pay these bills, and medical debt can quickly add up.

A health savings account can help you be more prepared for these medical expenses. Many companies offer an HSA as a part of their benefits package, offering a way to take the money from your paycheck before it enters your normal account. Some will even contribute a certain amount to your HSA each paycheck. This account grows, earns interest, and can even be invested. It can be used for medical expenses such as deductibles, dental care, vision care, medications, medical supplies, and things your insurance doesn't cover. However, it can only be used for government-approved items. A complete list can be found online.

A HSA account provides benefits beyond being prepared for medical expenses. The money you put into your HSA is not taxed by the federal government. It reduces the amount of your taxable income, as well, lowering your tax burden further. Withdrawals and payments for qualified expenses are not taxed. The interest you earn in your HSA is also tax-free, as are any gains you have from investing a portion of it. Finally, your HSA funds roll over each year, allowing you to keep the money you've saved and build it up over time.

HSA accounts do have a maximum amount you can put in each year. This amount is set by the government and changes each year. For more information on this, visit the IRS website. Making the maximum payment each year maximizes the reduction of your tax burden. Though you can do this in a single payment, dividing the maximum amount by how many times you are paid each year can help you contribute to your HSA throughout the year. Be sure to subtract any

amount that your employer contributes from the total maximum contribution before calculating your share.

If your job does not provide an HSA account, you can open one on your own and set it up for automatic payments each paycheck. Be sure to adjust your budget accordingly, as your total gross income will reduce by the amount you add to your HSA.

*Lesson Assignment: With your parents, make a list of medical expenses they've covered for you so far this year. These may include physical or mental health, emergency costs, and supplies such as masks, hand sanitizer, OTC painkillers, or bandages. Discuss how your parents paid for these (e.g. savings, HSA, or budget cuts) and how an HSA has/could have helped.

Sources Cited: <https://www.healthsystemtracker.org/brief/the-burden-of-medical-debt-in-the-united-states/>

45. Writing a Check

Though checkbooks have mostly been replaced by credit and debit card payments and online payment platforms, there may be some occasions where you will need to know how to write a check. Checks usually come in the form of books, each containing several checks and may include single or duplicate checks. Duplicate checks are simply carbon copies of your check to keep for your records. Checks provide information to banks that help money be taken from your account and deposited into the account of whoever you are paying. Mailed payments, such as rent or mortgage, or large payments, such as employee pay or repairs, may need to be paid using a check. All checks should be accounted for in your checkbook and withdrawn from your balance as payment will go through when the person you are paying cashes their check.

To understand how a check works, you need to understand the parts of a check. See the images on the next page for more information:

Front of Check

The diagram shows the front of a check with the following fields and labels:

- Bank Account Holder's Name and Address:** John Jones, 123 W State St, Any City, US 55555
- Full name of the company or person you are paying:** Pay to the Order of _____
- Line for written amount of payment:** _____
- Check Number:** 0000
- You bank's info:** Your Bank, 1-800-CallUs
- Numerical amount of payment:** 5.00 dollars
- for:** _____
- Routing Number:** 000000000
- Account Number:** 000000000
- Check Number:** 0000
- Signature line for the person paying:** _____
- Notes for account owner:** _____

Back of Check

The back of the check features an endorsement area with the text "Endorse Here" written vertically on the left side. To the right of this text are three vertical lines, which serve as a guide for where to place the signature or stamp.

The front of a check is filled out by the person who is making the payment. In order to be valid, it must include the name and address of the payer, the date the check was written, the full name of the business or person being paid, the written amount (e.g. five hundred and fifty-three dollars + 12/100), the numerical amount (e.g. \$553.12), bank and account information, and the signature of the person paying. A check can be stolen or forged, giving potential scammers access to your funds, so checks should be protected, recorded, and accounted for. All checks should be accounted for, and check numbers, amounts, and payees should be a part of record keeping. Any mistakes on checks should be initialed by the payer (if it can be quickly and easily fixed) or the check should be voided (write VOID across the entire check), noted in your records, and re-written with a new check.

The back of the check includes an area for the bank to add information about the deposit of funds (putting the money from the check into the receiver's account) or cashing of the check (the bank pays the receiver the cash that the check is written for) and lines for endorsement. The person the check is made to must sign their full name on these lines in order for the check to be deposited or cashed.

****Lesson Assignment:** Use the form on the next page to make several copies and write several practice checks to people you know. If needed, ask an adult for help. Then, write and endorse a practice check to yourself.

	0000
Pay to the Order of _____	
Your Bank 1-800-CallUs	_____ dollars
for _____	
000000000	00000000 0000

Endorse Here	
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46. Credit and Debit Cards

Though cash and checks are valid forms of payment almost everywhere, many people have switched almost entirely to credit cards, debit cards, payment platforms, and ACH (automatic clearing house) payments. These are electronic methods of payment and require the user to have an account and/or card to complete the transaction. These forms of payment take money directly from the payer's account and deposits it directly into the account of the person or business they are paying. No physical currency changes hands. Rather payments are made by electronically adjusting the bank balances of both parties. These payment methods are convenient, but must be tracked carefully so that the balance in the account does not fall below the payments necessary. They also require self-control and disciplined spending habits, as it is easy to over-spend.

Credit cards are plastic cards that include a 16-digit number, expiration date, and 3-digit security number. Many companies offer credit cards and you can carry as many cards as you want. Credit cards allow you to complete electronic transactions on credit, meaning when you spend money on a credit card you are taking out a loan for that amount from the credit card company. Credit cards come with a limit, or maximum amount you are allowed to borrow. It is recommended that you spend no more than 10% of your credit card limit on your card. This will help you build your credit score and show you are a responsible borrower. When choosing a credit card, the credit limit, interest rate, and rewards offered should all be carefully considered.

For a credit card, money does not transfer directly from your account to cover payment. Most credit cards are billed on a monthly basis, allowing users to pay back their spending using their bank account all at once without interest added. This means that you will need to transfer money from your checking account to your credit card at least once a month. Credit card companies suggest a minimum payment each month, far below the amount you owe. This minimum payment is designed to allow you to continue to buy on credit, but the balance not paid incurs interest. This is one way the company makes money. The best practices for credit cards include never spending more money than you have in your checking account, paying off spending in full regularly (e.g. every paycheck, but for sure monthly), keeping your credit balance low, tracking spending, using your

credit card only when needed. These practices avoid the high interest rates that credit cards charge and allow you to build your credit responsibly. It is easy to get carried away with a credit card and become trapped by huge amounts of debt quickly and a credit card should only be used by those who are financially disciplined and understand the process well. Many people simply choose one bill to pay with their credit card (e.g. gas) and pay that off using their checking account each month.

Debit cards are usually issued by a bank for anyone who has a checking account. These cards include a 16-digit number, expiration date, and security number. They also require a 4-digit pin to be entered to authorize each transaction. This information should never be shared, as it allows anyone to engage in transactions using your account. A debit card allows its user to electronically transfer funds from their account to the person they are paying. It also allows use of an ATM machine to withdraw physical cash from your account. All withdraws and payments should be recorded in your register, a written record of money coming into and out of your account, and a running balance should be kept as you spend money. Overdrawn accounts (or accounts where money that was taken out exceeds money that was in the account) can incur fees from the bank. To use a debit card, you simply swipe, insert, or tap your card on a card reader or input your card information into a payment form. Care should be taken to avoid scams like skimmers or unsafe websites.

Payment platforms, like Paypal, Venmo, Stripe, Square, and others give a buffer between your banking information and the person you are paying or receiving funds from. These platforms allow you to create an account and link your bank information to that account. When you purchase something, the payment is taken from your bank account, placed into the platform's account, and then paid to the platform account of the person/company you are buying from. This way, you don't share your banking information and neither do they. Money can then be transferred to your bank account as needed from the platform account. Though this buffer protects your information in some ways, you should only use payment platforms you trust, as they store your banking information. As with a credit or debit card, you should carefully track your spending and income to ensure you don't overextend your finances.

ACH, or automatic clearing house, payments are often used to pay utility or medical bills, as well as other large payments. They have almost completely eliminated the need for checks and work in much the same way. ACH payments use a network of banks to electronically transfer funds, often without fees that many credit card payments require. To make an ACH payment, you simply enter your 9-digit account routing number (the first number found on the bottom of your checks) and your 9-digit account number (the second number found on the bottom of your checks) along with general information like your name, address, and the payment amount. This allows banks across the nation to link together, pulling the payment from your account and depositing it into the account of the person receiving the money. These payments are almost instant and far more convenient than checks. Many companies now pay their employees using this system in what is known as a direct deposit. As with other payment forms, and ACH payment should be checked for scams before payment information is entered into any form.

****Lesson Assignment:** Help your parents make a payment with each of the following methods: credit card, ACH, and payment platform. Track the money from your parents account to the payers to understand how it is moving electronically. Then, discuss the benefits and faults in these payment systems when compared to cash or check with your parents. Finally, ask your parents to help you open a checking account of your own. A parent will likely have to be on the account, too. Use your debit card for a purchase and track your deposits (money coming into your account) and withdraws (money coming out of your account) along with a running balance.

47. Balancing an Account

When signing up for a checking account, the bank used to issue checks and a checkbook or register. This register was a physical book that included a chart to track withdraws and deposits and record your running balance. Before computers, this was the only way to know how much money was in your bank account during the month. If you didn't track your spending and income, it was

easy to overdraw your account, meaning you now owed the bank money with interest.

Today, many account records are electronic. Most banks provide a website where you can log in and see your register on a computer, tracking your deposits, withdraws, and running balance for you. However, it is still a good idea to keep your own record to ensure that there are no mistakes. This may be done using a physical register, certain apps, or even a simple software program like Excel.

To keep your records, each deposit, transfer, payment, and withdraw should be recorded. This should include a code that describes the transaction (e.g. the check number for checks, DC for debit card, ATM for an ATM withdraw, AD for automatic deposit, AP for automatic payment, BP for an online bill pay, or T for a transfer). It should also include the date of the transaction, a description of it (e.g. WalMart-school supplies), the amount of the withdraw or credit, and the new running balance after this transaction. See the table below for an example of how to keep a register.

Number or Code	Date	Transaction Description	Payment/Withdraw	Deposit/Credit	Balance
AD	8/25	Opening Deposit		500.00	500.00
DC	8/26	Crumbl Cookies	6.00		494.00
ATM	8/26	Withdraw- car	100.00		394.00
AP	8/27	Gas Bill	50.00		344.00
BP	8/28	Electric Bill	25.00		319.00
AD	8/29	Payday		1000.00	1319.00
T	8/30	Transfer to savings	30.00		1289.00

This record will allow you to balance your account, or match it to your monthly statement from the bank. This statement may be mailed to you in a physical copy or be available in the online account from your bank. It will show each of your transactions, along with a running balance and a final balance from the end of the month. It will also include any interest or fees you owe.

To balance your register, you simply ensure that your records match the bank's records. Check to ensure that each transaction listed was authorized and recorded by you as well as the bank. Note any inconsistencies and correct any

mistakes. Ensure that your final balance matches the bank's final balance. Report any transactions that you did not authorize to the bank.

This process used to be done monthly, as paper statements would be mailed then. However, with online information, balancing your account at least once a week ensures that you catch unauthorized spending quickly, helps you keep track of your account balance, and may remind you to stay on budget.

****Lesson Assignment:** Keep a register for your checking and savings accounts. Practice balancing these accounts against bank statements at least once a month.

48. Understanding Loans and Debt

In addition to credit cards, banks, credit unions, and other companies offer different types of loans. A loan is money you borrow from the company and is expected to be paid back over time, allowing you to purchase something you may not be able to afford otherwise. Loans, however, come with interest. This is a rate (or percentage) above the money you borrowed that you must pay the company for allowing you to use their money. Interest rates vary by company, length of the loan, amount of the loan, government rules, and type of loan. For example, if I borrow \$1000 from a bank and my loan carries a 10% interest rate, I must pay the bank \$1100 back by the end of the loan. Loans usually come with a loan term, or expected amount of time until it is paid back, and a monthly payment. These terms are all agreed upon in the contract signed when you take a loan and can vary just as much as interest rates. In our example, I borrowed \$1000 at a 10% interest rate. If this were a 5-year loan, with a simple interest rate of 10%, I would pay \$1100 in 5 years, meaning my monthly payment could be calculated to be \$18.34. In order to pay back this loan on time, I would need to send the bank \$18.34 each month for five years.

Though the amount of the loan is the most important factor, interest rates and fees should be strongly analyzed before taking out any loan. In the example above, simple interest was used. This means that, to calculate the interest, you simply find 10% of the amount borrowed. However, interest can also be compound (which means you pay interest on the principle amount of the loan as

well as any still-owed interest), effective (which includes fees and a compound interest), fixed (at a constant rate that does not change throughout the loan), variable (which means your interest rate changes according to the market throughout the loan) accrued (which means interest accumulates over time), annual percentage rates (which includes interest and fees), and others.

Additionally, different companies will offer different interest rates and types for the same loans. Before taking out a loan, it is smart to calculate the interest you will have to pay throughout the life of the loan. This way, you know exactly how much it will cost you to purchase something in this manner.

While it is best to avoid all debt, there are some times when it can be appropriate. Short-term loans for wants instead of needs are almost never appropriate. If you want to buy a piece of furniture, for example, save your money until you can pay the full price and then purchase it. A loan on items that are not needed will only mean you pay more money than the item is worth in the long run. Short-term loans often carry a high interest rate (e.g. credit cards) and can bury you in debt quickly.

Longer-term loans for a home, car, or school tuition, however, are often used to purchase large items. Of course, it is best to avoid debt. However, everyone needs shelter and transportation. Education has also become something necessary for many jobs.

When buying a home, many people take out a mortgage, or loan to pay for the house. The amount of a mortgage will depend on many factors. The price of the home, the interest rate, and the down payment all affect a mortgage greatly. A down payment is the money you pay towards the house when you purchase it. When choosing a home, consider your budget and what the final payment would amount to. Choose a home that covers your needs, but is not overly costly or ornate. Save as much as you can for a down payment and consider what assets you have that may be used to contribute to the down payment (e.g. are you selling another home). Making a large down payment keeps the amount you have to borrow lower. This means you owe less money to the bank/credit union and will pay less in interest. Shop around at different banks for lower interest rates. Sometimes points can be purchased that lower your interest rate even further. These may be worth it if they save money on interest in the long run.

Finally, consider costs like home insurance, real-estate agent fees, closing costs, moving costs, repairs or supplies for your new home, private mortgage insurance (if your down payment is less than 20% of the home), and property taxes that will be added to your budget before agreeing to a loan. Mortgages generally come in 15-year and 30-year terms. The 15-year option often offers less interest over time, but a higher payment. 30-year loans will cost more in interest. Look for a fixed interest rate and a stipulation in your contract that you can pay off your loan early with no fees. Calculate your new expenses and ensure your budget can cover them before signing a mortgage loan.

Like homes, automobile loans are common. Cars are a necessity for many people and saving for one can take a long time. However, when purchasing a vehicle, price and needs should be taken into account. Buying the newest or fanciest car will only waste money. Consider your needs, maintenance costs, insurance, fuel costs, safety, and budget before taking out a car loan. Again, shop around for a lower price and lower interest rate. Take the time to calculate what your new payments for your auto loan, fuel, insurance, and maintenance will be and see if they work for your budget before you sign a loan. If possible, buy a vehicle with cash. If not, make the largest down payment possible, consider trading-in or selling your old car, and look for a low and fixed interest rate. Auto loans are often in terms of 5 years.

Finally, education may necessitate a student loan. When considering a college, tuition, scholarships, and FAFSA aid should be considered into your budget. Many times, however, this is not enough to cover tuition, housing, food, and supplies. If possible, work while you are in school to minimize how much you need to borrow. Shop around at different colleges or trade schools and consider tuition as well as the quality of your degree at each school. Consider renting with friends, staying with family, or renting a single room rather than staying at the dorm or renting your own place. Finally, before taking a loan, consider the average salary in your chosen field and how that compares to the loan. If you will owe more than you will make, consider changing majors or finding a way to fund school without a loan. When taking out a student loan, borrow the lowest amount needed, check interest rates, and consider loan terms. Many student loans do not incur interest or require payments until after you are done with school. This helps keep costs down, but means you will need to begin payments

as soon as you are out of school. As with any loan, be sure you understand the fees, interest rate, your monthly payments, and the total cost of your loan before signing.

****Lesson Assignment:** With your parents, look at one of the loans they've taken out. Discuss the interest rate, loan term, how much they borrowed, and how much they pay monthly. Calculate the total amount they will pay on the loan by the time the term ends. Then, calculate how much they will pay in interest. Discuss whether or not they think it was a good choice to take out this loan and what they would've done differently if they knew what they know now.

49. Insurance and Wills

In addition to savings, budgeting for maintenance, and your HSA account, insurance is a way to manage unexpected expenses. In some cases, such as home or automobile insurance, there is a legal obligation to be covered. In other cases, insurance can help you pay bills and manage large or unexpected obligations.

Insurance is a contract, or policy, between a person and a company. This policy outlines a person's coverage, or what insurance will pay for if it happens, fees and payments, and the procedures that the person needs to follow in order to receive financial payments from the insurance company. With any insurance, you pay into the insurance company on a regular basis and they are billed for certain expenses you incur that are covered under your policy. What is covered will depend on the type of insurance, what your policy details, and how well the procedures outlined in your policy were followed. The insurance company takes the fees from each of its customers, pools them together, and uses that money to afford to cover insured expenses. Many insurance policies include a deductible, or amount you must pay before they will cover anything. Some include a co-pay, or a percentage of the bill you must pay, a maximum limit, or a network of providers that you must stay within to maintain benefits.

While plans differ, medical insurance is meant to help you manage and pay for medical bills. This may include preventative care (e.g. check-ups and routine testing), doctor visits, emergency room visits, hospitalization, and certain medical

procedures. It also helps cover necessary prescription medications. Medical insurance is a common benefit in many jobs and the payment is taken from your paycheck or covered by your employer. It can also be purchased individually, though this option is more expensive. A person with medical insurance usually receives an insurance card that carries information the doctor's office or pharmacy will need in order to process payment. When arriving at your appointment, simply give this card to the receptionist and the doctor will bill the insurance the correct amount for your visit. You may have to pay for the co-pay, deductible, or services that are not covered by your insurance. After the insurance company is billed, they will send you an Explanation of Benefits, or EOB. This will outline all the charges from your appointment, what the insurance covered, and what your financial responsibility is. The doctor will then send you a bill, outlining the same things and allowing you to pay the balance. Always check your EOB and bill to ensure covered costs were paid for by your insurance.

Dental and vision insurance work much the same way as medical insurance, but pay for appointments for teeth and eyes. Many times, preventative care (e.g. checkups and cleanings) is completely covered by insurance.

Automobile and home insurance protect your vehicle and home and, in many cases, are required by law. These insurance policies often cover damage, such as a car crash or home fire, and can help pay for unexpected expenses. They can be purchased individually through an insurance company. Policies should be carefully chosen based on your needs and resources.

Life insurance is meant to protect your family from financial issues in the event of your death. It provides a payout to a person or persons of your choice should you pass away, helping them pay for funeral costs and partially replacing your income. Life insurance comes in two types, term and whole. Term life insurance lasts for a certain amount of time and has a locked-in rate during that amount of time. A term policy is usually 20 years and, if you don't use the insurance during that time, the company keeps the money. The premiums are usually lower, saving you money in insurance fees. Whole life insurance is more costly, but offers fixed premiums and a fixed rate of cash growth. It lasts until the end of your life, when payout is made to your chosen beneficiaries. In many cases, life insurance is

optional, but is a good idea for anyone to obtain as it protects against the financial hardship that a funeral and loss of income creates.

Other considerations to make in the event of your death are a power of attorney, living will, and a last will. These legal documents can protect you and your family, not only financially, but physically and emotionally as well. A power of attorney gives a person of your choice the ability to make decisions in the event you are incapacitated. For example, if you are in a coma and cannot respond, this person is authorized by your POA to make medical, financial, and legal decisions for you. They can choose to continue or end care, control bank accounts, pay bills, and control business and other assets in your name. Due to the responsibility this takes, your POA should be someone you trust and who knows you well. Your plans and wishes should be discussed before anything happens so they can best understand what you would want. When you are a minor, your parent or legal guardian serves as your POA.

A living will is a document telling medical providers what your wishes are should certain medical issues occur. It may include a DNR (do not resuscitate), instructions for whether you want to continue care under certain circumstances, and information on your wishes for organ donation. This document protects family members from having to make difficult medical decisions for you in certain medical events. When you are a minor, your parent or legal guardian serves as the person who will make these decisions.

A will is a legal document that outlines how your assets and belongings will be distributed when you die. It allows you to have a say in who gets your money, home, vehicles, and other things. It also gives parents an opportunity to outline who will care for their children in the event that both parents pass away before the children are grown. Laws about wills differ by state and many will still go through a legal process before they are carried out. However, when done right a will can help simplify the difficult process of dealing with the aftermath of your death, helping your family avoid conflict and stress.

****Lesson Assignment:** Choose one aspect of this lesson that you want to learn more about. Research how it works online and then discuss with your parents

what policies and documents they have in place. Make a plan for your own insurance/legal documents in the future.

Chapter Seven: Renting

- 50. Finding a Home
- 51. Understanding Your Contract
- 52. Your Responsibilities
- 53. Your Rights

Chapter Eight: Buying a House

- 54. Understanding Your Budget
- 55. Getting Pre-Approved
- 56. Looking for a House
- 57. Making an Offer
- 58. Disclosure
- 59. Escrow
- 60. Closing
- 61. Moving

Chapter Nine: Starting a Business

*The information in this chapter is the opinion of the author and is not meant to be legal or professional advice. Please contact your attorney, accountant, and other professionals for more information.

62. EIN, State ID, Sales Tax, and City License

Starting a businesses is a smart way to gain control of your finances and resources and put your skills to work. Business ownership, however, is not easy and you must be dedicated, self-motivated, hard-working, and willing to make some sacrifices in order to help your business grow. 50% of businesses fail within 5 years. However, understanding the legal, financial, administrative, and marketing techniques unique to your industry can give your business a better chance at survival.

The first step to officially starting a business is applying for an Employer Identification Number, or EIN. An EIN acts as a registration for your business with the federal government and, like a social security number, will be the method in which your business is identified for legal and tax purposes. To file for an EIN visit the website [here](#) and apply online or by fax, telephone, or mail. Online is the preferred method and is usually much quicker to process.

In order to apply for an EIN, you will need to complete IRS Form SS-4. The online process helps you to complete this form. Alternatively, you can print and mail/fax it in. To complete the application, you need to know the following information: the legal name of your business, the trade name of your business (if different than the legal name), the mailing and street addresses of your business, a responsible party (the name and social security number of the business owner), what type of business you are applying for, the date your business began, the highest number of expected employees within 12 months, the first date of wages paid, the industry your business is in, the principle goods or services provided by your business, and any previous EIN's under your name.

While some information needed is simple and straightforward, questions like "type of business" may be more confusing. Read the information below to better understand the types of businesses.

Sole proprietorships are commonly used by small business owners. This type of business is owned by a single person. The business is tied to the legal and financial aspects of the owner's life. This gives little legal or financial protection to the owner. The owner is fully liable for debt, lawsuits, and other aspects of the business and their personal finances may become involved in these cases. This type of business gives the owner complete control of the business and is the easiest and most simple way to begin a small business. Business income is considered personal income for the owner and is taxed as such.

Partnerships, much like sole proprietorships, are easy to establish and less regulated. They provide the same tax benefits and many of the same risks, depending on which type of partnership is entered into. However, under a partnership, the business is owned by two or more people, rather than one.

Limited Liability Companies, or LLC's, are another common type of business among small business owners. LLC's give owners the same tax benefits as the above types of businesses, but give more protection against liabilities. LLC's create a separate identity for a business, which puts distance between the owner's personal and work life, finances, and responsibilities.

Corporations, like LLC's, are separate entities from the owners of the business, protecting the owners from debts and legal issues. Pieces of the business are owned by shareholders, who own stock in the business. Corporations have three different types. A C-corporation is the most common. This corporation is taxed individual and the owner's salary, which is paid regularly, is taxed separately. An S-corporation is limited to 100 shareholders and enjoy many of the same benefits as partnerships. Finally, a non-profit corporation is exempt from taxes. This type of corporation is limited and strictly regulated.

Though there are other types of business designations (e.g. military, government, church-owned), these are the most common for small business owners. Before beginning a business, it is important to study and fully understand the type of business you would like to create, as well as the legal and financial risks and benefits of each. A lawyer and/or accountant can help you to ensure your business choice is the correct one for your situation.

After obtaining a federal EIN, you will need to register your business with the state in which your business will reside. In Utah, this can be done at the One Stop

Business Registration Website (found [here](#)). You will need your EIN, as well as similar information used when applying for it, when registering in the state. Once processed, you will be given a State ID Number for your business. You will also need to register for a Sales Tax ID Number and, depending upon the type of business, unemployment and withholding accounts. The online process will help walk you through these items, though it is a good idea to consult with a professional if you have questions.

Once you have an EIN and your State ID Number, you will be able to register your business within the city in which it will operate. This process can usually be done online in the *Business or Community Development* section of your city's official website. Alternately, you can visit your city council building.

Each of these registrations carries a fee, which you will need to pay in order to register your business. Business registration usually must be renewed once a year by updating information and paying the fee again. If you close your business, you must notify each place you registered with individually in order to legally close your accounts.

*Lesson Assignment: Practice filling out IRS Form (found [here](#)) for a business you've considered starting. Consult with an adult about any aspect you don't fully understand. Do not submit the form to the IRS, simply practice.

**Source for this lesson: CFI Team. (2022, November 27). *Types of businesses*. Corporate Finance Institute. Retrieved February 6, 2023, from <https://corporatefinanceinstitute.com/resources/management/types-of-businesses/>

63. Business Bank Accounts and Credit Cards

No matter the type of business, you likely will be handling money, whether physical cash or digital, as you sell goods and services. You will also need to purchase supplies and may need to pay employees. Though you can run the money through a personal account in some cases, (e.g. a sole proprietorship) it is easier and safer to open a business bank account (or several) to handle the finances of the business separately.

Many credit unions and banks offer special rewards to businesses. When applying for an account, be sure to let them know that it is for a business, rather

than a personal account. You likely will want to open a checking account, to handle everyday sales, purchases, and payroll, and a savings account, to build an emergency or large-purchase account. You may add your own name to the account, add partners as equal account owners, or add authorized users. As the owner of the account, you will have full access to the cash within it. If you add others as equal owners, they will have the same access and could, potentially, withdraw all the money. Authorized users are limited in what they are allowed to purchase, withdraw, and deposit into your account and limits can be set with your bank.

Many checking accounts come with a debit card, which allows you to make purchases electronically. Debit cards do not give you credit. They simply transfer the money from your bank account to the account of the place you are purchasing from. This allows for online purchases, purchases without carrying cash, and control over who can and cannot access the business cash. However, making purchases larger than the amount in your account can lead to fees from the bank and the place you purchased from. To avoid this, keep a record (or register) of all your deposits and purchases with a running balance to ensure you always understand the balance of your account.

You will also need to keep careful track of your expenses, income, and payroll as you will need this information when you file taxes. There are several programs and apps that can help or you can simply create a handwritten record or typed spreadsheet. The right option for your business will depend on your training, your time resources, the amount of purchases and income you experience, and the advice of your accountant.

A checking account also gives the advantage of being able to process digital sales. Many small businesses use online payment apps (e.g. Paypal, Venmo, ApplePay, etc.). These apps give your business a simple way for people to pay electronically. Those payments can then be electronically transferred to your checking or savings account. However, many come with fees and specific rules so be sure to review these before using any app.

Your business savings account should include at least 6 months to one year of expenses. When you first start your business, you will not have this much in it. In fact, it may take a long time to build this. However, this will help your business

survive unexpected expenses (e.g. repairs, economic downturns, etc.) and difficult times. Each time you have extra profit that is not needed to cover current expenses, try to put some of it into your savings. This will give you a safety net and allow you to expand your business as needed. Withdrawals and deposits for this account should also be closely tracked.

Finally, many businesses use credit cards to make and accept purchases. These are different than credit cards because purchases made on them are on credit, or a promise that you will pay them back. Money spent on a credit card does not automatically come out of your account, but must be paid back each month.

To accept payment from customers with credit cards, your business will need a card reader and a processing platform (e.g. Square). These platforms charge a fee for each purchase, which is usually passed on to the customer through your pricing.

Having a credit card for your business purchases has advantages and disadvantages. Before getting a credit card, it is important to review all aspects and understand what is being promised by your credit card company and your business. Credit cards often provide rewards and benefits to businesses such as free flights, cash back, or a points system which can be redeemed as needed. Business credit cards often carry a higher limit, allowing business owners to make larger purchases as needed. They can also help build your business's credit score, a number which banks use to determine interest rates and loan limits.

However, if not used properly, credit cards can increase debt and allow business owners to overspend. Credit cards operate on credit rather than in-hand cash, which means you can spend more than you have and incur debt. Credit card companies place interest (usually at high rates) on this debt. This interest grows each month the debt is not paid off and can be catastrophic. The best way to avoid this is to only spend as much on your credit card as you can pay off with the cash you have on hand and pay your credit card to a zero balance each month. This avoids interest altogether and ensures that you always are able to make payments at the end of the month.

Loans are another credit-type account that your business can incur. Loans are money borrowed from a lender (e.g. bank or credit union) which is paid back with interest in monthly installments. Loans, when used properly, can free up capital

that will help your business grow and increase your credit score. However, if loans are not paid back, are unreasonable or unnecessary, or are above the ability of your business to pay back, they can hurt your credit, result in lost assets, and ruin your business. Always consult with an accountant before entering into a loan.

*Lesson Assignment: Use a checkbook register, spreadsheet, or bookkeeping app to help your parents reconcile and account. Record and classify expenses and income.

64. Income vs. Profit

Once your business is up and running, you will need to carefully track expenses. However, you will also need to track your income, or sales of goods and/or services. This income will be taxed by the state and federal government according to the laws for your specific business type. Your records will also help you determine your normal expenditures, income, and profit, allowing you to better plan for the future of your business and create a working budget.

Expenditures are the monies used to buy things for your business. These can range from job supplies to travel and meals to paying contractors and employees. These fall into the “expenses” category of your registry and can be used to help calculate your taxes and profit. Be sure to begin a file where receipts for every expenditure can be collected and saved for 7 years.

Income (sometimes called gross income or revenue income) is the money your business brings in through sales. This is the money you make when a customer pays you for goods and/or services. Income should be tracked, with receipts where possible. Returns and exchanges should also be tracked.

Profit is different than income. Any business that sells to a customer has income, or money coming in. However, not all businesses have a profit. Those that don't will quickly fail. Profit is calculated by subtracting your expenses from your income. If your income exceeds your expenses (you make more than you spend), your business has a profit and is doing well. If your expenses exceed your income (you spend more than you make) you are operating at a loss and likely will need to decrease your spending and/or increase your sales to survive as a business. You may also need to adjust your prices to better reflect the cost required to

create a finished product. This cost analysis should include supplies, time, labor, taxes, rent, and other expenses. A good business knows how much it costs to make/provide each individual good and/or service and charges enough to make more than the cost. 10% is a healthy profit margin. This means that each item/service sold should give you a 10% profit after all costs are considered. For example, an item that costs \$10 to produce should be sold for a minimum of \$11. However, profit margins can vary from industry to industry and depend upon demand, competition, and stability of the business. A business may operate at a loss on some products while making a 50% profit margin others if the products at a loss bring more sells of those at 50%. However, a business operating on an overall loss cannot stay afloat long, as bills need to be paid in order to keep the business operating.

*Lesson Assignment: Decide on a product you can create or a service you can provide. With an adult, research the cost in supplies, equipment, time, and labor that it would require for you to provide an individual product or service. Then, determine what your price for that product should be based on a 15% profit margin. (Hint: to find your price, multiply your total cost by 0.15)

65. Estimated Taxes, Income Taxes, and Property Taxes

One of the most complicated parts of running a business is keeping up with government taxes and fees. This process can be frustrating and, at times, feel unfair. However, it is an important part of a healthy business and professional accountants can be great resources for planning for, filing, and paying state and federal taxes.

Personal income taxes are filed once a year and are due by April 15th. Sole proprietorships are taxed through this system, as are any personal payments the owner of another type of business receives. The amount paid depends upon your withholdings, deductions, and income. Anyone who makes an amount more than a certain amount (determined by the IRS and/or state) in a year, even those who do not own a business, needs to file personal income taxes. Income taxes must be filed with the state and federal governments and different forms exist for each.

A business also files income taxes. When filing these taxes, you will need your records of expenses and income from your business. Business income taxes are

filed separately from individual ones and require separate forms, unless you are a sole proprietorship. The amount your business owes will depend upon how much has already been paid, your total profit, your total income, and your expenses. Many states require estimated tax payments throughout the year. These are based on previous year tax payments and are paid, usually at the end of each quarter. At the end of the calendar year, taxes paid are accounted for when filing your business taxes. If your business underpaid, you will owe more. If your business overpaid, you will be issued a refund.

Additionally, if your business owns property (e.g. machinery, land, buildings, vehicles, certain equipment, etc.) it will pay property taxes annually. Your business should receive a statement which includes state, county, and city property taxes. This statement will provide an estimated value of your assets, which may need to be updated. After your response adjusting for sales or purchases of additional property, you will need to pay the amount given on the next statement. The amount and process will vary from state to state.

*Lesson Assignment: Discuss income taxes with an adult and ask your parents to review the process of filing with you. Go through last year's taxes for your family with your parent. Ask questions about income, expenses, deductions, refunds, and payments until you understand the process.

66. Filing Sales Tax

Another tax businesses must file and pay are sales tax. Whenever you purchase something at a store or pay for a service, the state, county, and city add on a sales tax. Often, this is between 6-15%, though it varies with the area. This tax is added onto the cost of the item and paid when the consumer pays for their item/service. However, the business does not keep that money. It is paid annually when the business files Sales Tax.

Sales taxes in Utah are to be filed after December 31st and before January 31st. This ensures that all taxes collect in the year will be accounted for. If you forget to charge a sales tax when your customer pays, you are still responsible for payment. To file sales tax in Utah, visit this [website](#) and login in with your business information. You will see the taxes to be filed within the *Action Center* tab. Here you will need to enter information about your income and sales tax rates for your area. You will also need an understanding of which sales are tax

exempt (discuss this with your accountant). The entire process takes only a few minutes and you can make payment at the same time if needed.

Lesson Assignment: Visit a store and make a small purchase. Note that the price you pay is more than the price of the item you chose. Look on your receipt for the sales taxes added (usually under your subtotal) and note the rate. If the rate is not noted, calculate it. Then, calculate the sales tax for the item you priced in the previous lesson. Re-determine your expenses by adding sales tax and recalculate your 15% profit margin price.

67. Online Businesses

Sales taxes become even more complicated when your business operates online and makes sales to other areas. Since sales taxes vary based on location, you will need an understanding of sales tax for each area you sell to. You may need to file sales taxes in each of these areas annually. Software and your accountant can help with this complicated task.

Lesson Assignment: Search online to determine the sales tax rate in three different states. Calculate the sales tax for the item you priced out in each area and rank them lowest to highest.

68. Employees, Contractors, and Tax Forms

In addition to customers, an important aspect of your business is the people you work with. These people may be partners, contractors, or employees. Your business benefits from their work and time and you pay them for their services. Depending on your business type and their classification, payment and taxes are dealt with differently. However, each of the people who are paid by your business (including yourself) will need to account for the money paid during tax season. All payments you make should be carefully tracked.

Contractors are people who do work within your business but are not employed by you. They may be consultants, provide specific types of labor, or work only in certain circumstances. Contractors are not employees. However, you must collect an IRS form W-9 from all contractors who do work for your business. If you pay them more than \$600 in a calendar year, you should have a W-9. This form will be used to create a 1099 each January. This form tells the IRS how much you've paid contractors for their work throughout the calendar year. A copy is

sent to contractors and they use this form to file their own taxes. 1099's should accurately show all payments and include the information found on the W-9 for each contractor. W-9 forms can be found [here](#) and 1009's [here](#). Both can also be electronically filed using various types of software (e.g. Quickbooks). Additionally, if a building is rented by the business a 1099 may also need to be created and filed for them.

Employees are people who work regularly at the business (either full- or part-time) and are on the business payroll. This can be an hourly (they get paid a certain rate for every hour they work) or salaried (they get paid a certain rate each year) position. Employees need to fill out a W-4 (found [here](#)) when they begin work at your business. Each January, you will need to create a W-2 (found [here](#)) that will be filed with the IRS and sent to your employee. Additionally, businesses need to create a withholding and unemployment account with the state. Amounts will be taken from each paycheck given to employees and placed in these accounts each pay period. Information on rates and opening these accounts in Utah can be found [here](#).

Lesson Assignments: Print a W-9 form and a W-4 form. Ask a parent to help you fill out each as if you were starting a contracting and employee job. Discuss the different aspects of the form with a parent and the correct options for you. Ensure that you shred or otherwise destroy the forms when you are done to protect your information.

69. Networking and Marketing

In addition to understanding the legal and financial aspects of a business, creating goods, providing services, and attending to administrative needs business owners need to network and market. These processes give the business an opportunity to show customers who they are and what they do and get them interested in buying. If customers don't know your business exists, they cannot spend money there.

Networking is the process of getting to know others in your industry and your area: businesses helping businesses. For example, if you own a salon, you may want to get to know some of the owners of boutiques in your area and ask if you can place your card or flyer in their business. Alternately, you may want to offer to place their information in your shop or give referrals to their business to your

own clients. This cross-advertising can be beneficial to both businesses. In addition, networking with suppliers can help you build a relationship with those who provide the goods needed to build your business. Then, when you need help, want to negotiate a better price, or need a new supplier, you have a network of support already in existence. Networking can make your business more visible and provide support from like-minded people. Look around for networking opportunities such as conferences and conventions, local business luncheons, joining your city's chamber of commerce, or just visiting with businesses around you and getting to know them better.

Marketing in addition to networking can help customers learn more about you. In the past, marketing was done in newspaper ads, radio ads, flyers, and mail-out packets. While those methods are still used today, social media is probably the biggest marketing tool as it allows you to reach a large amount of customers across vast distances in short amounts of time. Ads, videos, sales, and deals posted to social media can spread quickly and are usually shared between friends, who trust each other's recommendations. Reviews on social media can prove to customers that your business is trustworthy and high-quality. Marketing can also include conferences and conventions, fundraisers and donations to local events or charities, inserts in magazines, affiliate marketing (where you pay others a commission to advertise your product), or encouraging word of mouth recommendations. Good marketing will increase interest in your business and, likely increase sales.

Lesson Assignment: Create a marketing campaign for your chosen product or service and implement it. Make and sell at least three units.

Chapter Ten: Filing Personal Taxes

70. Filling out Your W-4 or W-9

In the United States, citizens pay both federal and state taxes. As an employee, taxes are automatically taken out of your paycheck based on information provided in your W-4 form (see the next lesson). If you are a contractor, taxes are your responsibility and part of your income should be set aside to pay them during tax season, though those you are contracted to will need a W-9 form so properly file a 1099 and report your income from them. You will need to fill out a W-9 form for each company you do work for. If you are a business owner, you are responsible for withdrawing and submitting taxes for your employees from each of their paychecks and tracking and paying taxes for the business and yourself (personal income taxes). Often, businesses pay taxes quarterly while personal taxes are filed during tax season and money should be set aside throughout the year to cover them. However, this unit will only cover personal tax filings.

The first step to filing taxes is understanding withdraws from your paycheck (if an employee) or estimating and setting aside money from contract work (if you are a contractor).

If you work for a company regularly that requires certain hours or regulates how you do your work, you are likely an employee. At the start of employment, your employer should have you fill out a W-4 tax form. This form will be used to calculate the amount of money that is deducted from each paycheck to meet your tax (and other) obligations. Your employer will take the money deducted and submit it to the IRS or state on your behalf and keep records of your income and payments throughout the year. At the start of tax season, your employer will provide you with a W-2 form, summarizing this information for you to use on your taxes.

W-4 forms can also be found on the IRS website, as can a tax withholding estimator to help you determine your tax obligations and plan your finances for the coming year.

The first step of the W-4 form is your personal information. This includes your name, current address, and social security number. Next, you will check a box

that indicates whether you are filing single or married and filing separately, filing jointly with your spouse, or the head of your household. While it is best to discuss these options with your financial advisor or trained accountant, most people simply check the box that fits their situation.

Step two applies to those who work more than one job or are filing with a spouse who works. It allows you to use the online estimator to take all income into consideration, rather than just one job. If needed, follow the instructions provided on the form.

Step three allows you to claim dependents, or those you financially care for. Dependents may be qualifying children (your child, step-child, or sibling less than 19 years in age, or 24 years if a student, who lives with you more than half the year and does not provide at least half their financial support for the year or is permanently disabled), a qualifying relative (relatives that live with you, provide less than half of their own financial support, and make less than a specified amount each year). Dependents cannot be claimed by another tax payer and must be U.S. citizens to qualify. You will also need to provide their tax identification number (usually social security number) when you file your taxes.

Step four allows for other adjustments to be made. This takes into consideration other income you may be expecting, deductions, and extra payments you wish to make to your tax withholdings. The W-4 form provides a worksheet to help you calculate the appropriate amount for these lines for your situation.

Step five is a signature which states that the information is accurate and true. Below your signature, your employer will sign.

As with all tax forms, the W-4 instructions and help can be found on the IRS website. You can also consult with parents, tax professionals, and financial advisors as needed to ensure your form is filled out correctly.

If you do work by contract, often for more than one company, you are likely a contractor. Contractors control their own hours and methods and provide a service to the public. Contractors will need to fill out a W-9 form, rather than a W-4. A form will need to be submitted to each company they do work for. This form simply gives payees information needed (e.g. name, address, business type, and tax identification number) to submit a 1099 and report payments made.

Most contractors have their own business through which they do their work and can check the box next to the business type. If you are not a licensed business, you simply check the box for “Individual.” In addition, a W-9 includes information about the company paying you and your signature signifying that you attest to the accuracy and honesty of the information. As contractors submit their own tax payments, they do not need to include information about other jobs, deductions, or dependents. However, contractors should use the tax withholding estimator to save for their quarterly or annual tax payments and consult a financial advisor or trained accountant for information specific to their business type.

While most people simply fill out their W-2 or W-4 according to their situation, with careful planning and use of the IRS Tax Estimator [here](https://www.irs.gov/individuals/tax-withholding-estimator) (<https://www.irs.gov/individuals/tax-withholding-estimator>) you may be able to use taxes to your advantage. While some prefer to overpay on their taxes and receive a refund, others pay exactly what they owe, and still others underpay and complete their payment upon filing. Overpayment is a common way of saving money as you get a lump sum refund after filing. However, many argue that this allows the government to use your money, rather than giving you time to invest or save it on your own and build interest. Those that underpay throughout the year are able to use their money. However, they end up owing money after filing taxes and, unless they are good savers, sometimes have a difficult time coming up with the sum they owe. The way you determine your withholdings and fill out your W-4 and W-9 will depend on your own situation, your goals, and advice from your accountant.

****Lesson Assignment:** Visit the following websites and print a W-4 and W-9. Fill them out as if you were starting a new job. Use the instructions on the website to understand each step. Ask an adult for help if needed. [W-9](#) & [W-4](#)

71. What You Need to File Taxes

Personal income taxes need to be filed each year between Jan. 1 and April 15 if your total gross income is above the minimum filing amounts. These minimum

amounts change every year and depend on whether you are filing on your own or jointly with a spouse. You can find the limits by checking the website of the Internal Revenue Service (IRS) at www.irs.gov.

Taxes are filed starting in January for the previous year. Between January and February, you should start receiving the documents you need to file your taxes. These documents may come from employers, banks, mortgage companies, real estate investments, retirement funds, or investments. You will use this information to complete your tax forms for both the IRS (federal taxes) and your state (state taxes). Federal and state tax forms will vary from person to person depending on your situation (see lesson 72) and will help you calculate your owed taxes (if you paid too little throughout the year) or amount of return owed (if you paid too much throughout the year).

To begin your personal income taxes you will need the following information and forms for the year being filed (usually the previous year):

- Your social security number and the social security number of anyone you are filing with (e.g. spouse, dependents)
- Bank account routing numbers and account numbers (to make payment or receive refund electronically)
- Last year's tax forms, if you filed
- Your current address
- If e-filing, your IRS pin
- Your W-2 form (if an employee) or 1099-NEC (if a contractor).
 - These forms will come from those who pay you and will contain information about how much income you had and what payments you made to the government throughout the year
- Your W-2G (if you had any lottery or gambling winnings)
- Your 1099-K (if you received any credit card payments)
- Your 1099-INT (which shows interest payments from banks or brokers)
- Your 1099-DIV (if you received any dividends or distributions)
- Your 1099-R (for retirement funds, pensions, or annuities)
- Your SSA-1099 (if you received any Social Security benefits)
- A 1099-MISC (if you received any miscellaneous income, e.g. yard sales, side jobs, etc.)

- Your 1095-A (a health insurance marketplace statement)
- Records of childcare or dependent care expenses
- Mortgage records
- Property tax records
- Records of donations made to recognized non-profits
- Health Savings Account contributions/Flexible Spending Account contributions
- Healthcare expenses
- Retirement contributions
- Education expenses (if you are a student or teacher)

It is best to collect any information you may need to do your taxes throughout the year. Designate a folder for tax information and add any forms, records, or receipts that you will need so they are easy to find when the time comes. Print out or save tax forms on your computer or a jump drive each year and store them in an easy-to-find place. It is recommended you keep records for seven years before disposing of them correctly. Guard your tax information carefully and use only approved IRS and state forms, websites, and procedures to protect yourself from fraud. File your taxes as early as possible and make prompt payments, paying attention to IRS and state deadlines.

****Lesson Assignment:** With an adult, gather all the information you will need to file your taxes. If you don't have income necessary to file taxes or it is not tax season, ask your parents to pull out their tax information from the previous year and show you what each form they received looks like and what information it provides.

72. Using the Correct Forms

When filing personal income taxes, file federal first. This will help you accurately complete your state income taxes as well. While state tax forms vary depending on what state you live (look up your official state tax website for more information), federal tax forms used for everyone filing in the U.S. However,

depending on your situation, you may have to file different tax forms. It's important to understand which forms you need and how to use each one.

The IRS provides an online worksheet that helps you determine which form (or forms you) need to accurately complete your taxes. This worksheet can be found [here](https://www.irs.gov/help/ita/which-form-should-i-use-to-file-my-taxes) (<https://www.irs.gov/help/ita/which-form-should-i-use-to-file-my-taxes>). After completing this worksheet, the website will give you a suggestion for the correct form. As always, it's best to consult with a financial advisor or your accountant, if possible to ensure the correct information and forms are used.

For most people, personal income taxes are filed on Form 1040. For seniors, it's usually Form 1040-SR. Filling out the 1040 is a simple process that includes your personal information, your filing status, a listing of any digital assets, the standard deduction you can claim, the number of dependents you can claim, your income (from all sources for the tax year), taxes and credits, payments you have already made, and your signature. With this information, you use the form to calculate your refund (if you overpaid and get money back) or what you owe (if you underpaid). In some rare cases, you will have paid exactly the right amount and your balance will be zero.

Depending on your situation, you may need to file further forms. If you have additional income (e.g. award money, your own business, unemployment benefits), you will need to file a Schedule 1, Part 1 in addition to a Form 1040. If you have paid student-loan interest, or are a teacher, you will need to file Schedule 1, Part II. There are several different Schedules and the instructions from Form 1040 can help you understand which (if any) you need. Some situations that require additional forms are: additional income, student loan, teacher expenses, retirement income, HSA/FSA contributions, itemized taxes, extreme medical bills, donations to charity, dividends or stocks, capital gain or loss, child tax credits, mortgage interest payments, self-employment taxes.

Once you have determined which forms and schedules you need to file, carefully and honestly complete each according to the instructions on the form. If additional help is needed, the IRS provides instructions for each form on its website. It's always a good idea to have a trusted person look over your work for mistakes before submitting your taxes (e.g. parent) and to collaborate with your spouse if filing jointly. Federal taxes may be submitted by mail or electronically.

Check the IRS website and your tax form instructions for up-to-date information on how to complete this step.

After completing your federal taxes, visit your state website and complete the forms required of you by your state. This will vary depending on where you live, as will the amount of your tax obligation. Again, many states accept mailed or electronically submitted forms. Follow the instructions given on your forms or your state tax website. Be careful to use the official website, as tax fraud can allow other access to sensitive information and your refund (if applicable).

When you complete your federal taxes, you may owe money if you have not withheld enough throughout the year. The IRS provides specific instructions for submitting payment. Forms and payments are due April 15th each year. However, if you are in a difficult situation, you may be eligible for an extension or payment plan. Alternatively, you may have paid the exact amount of your tax obligation. In this case, no money needs to be moved on either side. You may also have overpaid, in which case you are eligible for a refund, or return of the amount you overpaid. You can choose how to receive this payment, by mail with a check, or as a direct deposit into your bank account. A direct deposit is usually faster and more secure than a check, but you will need to provide your bank account routing number and account number to the IRS to complete this transaction.

State income taxes may have any of the same results (you owe more, you break even, or you get a refund). While the deadline to file and pay is the same as federal taxes, state taxes vary in how to submit forms, send payment, or receive payments. It's important to be familiar with the tax process and requirements in state you live and/or work in.

****Lesson Assignment:** Print and complete Form 1040 with your information from the previous year (if you have your own income) or information from your parent's tax forms. Complete any other schedules or forms, as needed to finish the 1040. Ask an adult to help you as you work. You will not submit this form to the IRS. It's just for practice. Then, look up your state income tax files and options and become familiar with how to file (e.g. which form to use, how to fill it out, how to submit taxes).

73. Finding Help

While you can fill out and file your taxes by hand or using a PDF form on your computer, many people find that taxes are complicated. The added worry of legal issues from filing incorrectly or missing something due to limited knowledge of tax code adds stress to the process. While most people want to get their taxes right, tax code changes each year and requirements may be different depending on your situation.

For this reason, many people now use a variety of tools to help them complete their taxes quickly and accurately. Many people pay an accountant or trained tax preparer to complete their taxes and simply turn over the information and documentation they have collected to the accountant. In this case, the person filing taxes has the advantage of someone trained in tax code, up-to-date on new laws, and experienced in filling out forms correctly. However, the person filing is still responsible for the accuracy of the forms submitted to the IRS and state. If someone else prepares your taxes, both of you sign the forms stating that they are honest and accurate. This means you should be completely honest with your accountant, provide all information and documentation, and double-check their work for accuracy. The knowledge of a trained professional can often help you get more accurate numbers for how much you owe, and may even be able to find deductions that you've missed, decreasing your tax obligation. However, professional tax preparers and accountants are expensive and usually only worth the cost if you have a situation that complicates your taxes (e.g. own a business, etc.).

A less expensive alternative to a paid professional is tax-preparation software. Many companies (e.g. TurboTax, H&R Block, etc.) offer programs that will complete your tax forms for you. The IRS also offers this type of software for federal taxes to those below a certain income level for free [here](#) ([IRS Free File: Do your taxes for free | Internal Revenue Service](#)). These software programs ask you questions about your tax situation (e.g. have you bought a house, did you make at least X-amount of money, how many kids do you have, etc.) which help determine which forms you will need to file. They then ask you to input your personal information, and information from your tax-related documents and use this to fill in the forms. As with any other software, the output is only as good as the information you

provide to the program. When using this software, it's important to double-check yourself and your finished forms before submitting them to ensure they are accurate and all information is correct. Most software programs allow you to electronically sign and submit your tax forms to for both federal and state filings and provide instructions for payment or refunds. This software is often faster than filing by hand and can sometimes help you find additional deductions, decreasing your tax obligation and allowing you to keep more of your money. However, it usually comes with a cost for using it, though it is far less than hiring a trained professional. When using software for your tax preparation, it's important to ensure you are using official websites, your computer is secure, and others cannot see your information as you work as you are entering sensitive information into these programs.

****Lesson Assignment:** Ask your parents how they prepare their taxes. Compare their tax forms to the ones you completed in the previous lesson and discuss why they choose to do their own taxes by hand, with software, or with the help of an accountant/tax-preparer. Discuss the advantages and disadvantages of both and, together, consider which method you will use to file your taxes next time.

***Unit Sources Cited:** www.irs.gov

Chapter Eleven: Citizenship

74. Voting

In the United States, voting is the method through which citizens make their voice heard on candidates, policies, and laws. The idea that people should govern themselves is as old as human history and has been a part of America from the beginning.

When the Declaration of Independence was written, many of the grievances against the king of England included the fact that people in the colonies were not allowed an active or fair amount of participation in their government. As they were so far away, laws were made and enforced, rulers were installed, and taxes were created without the consent of those subject to and affected by those changes.

After America gained its independence, steps were taken to ensure that many of the problems with the English monarchy's rule were not repeated in the new nation. As the Constitution was established and the Bill of Rights created, voting became a part of the American political process. In America, anyone could run for office and their peers could vote in support of whoever they liked best.

Representatives were elected to create laws, run the military, and ensure justice. However, those representatives answered to the people and could be voted out of office if they did not protect the rights they swore to defend. America created a system in which rights were preserved, representation was met with accountability, and the people ruled themselves.

However, when voting began in America, it was limited to white, male landowners. Women were not allowed to cast a vote and had to rely on their husbands, fathers, and brothers. Minorities and slaves were also denied votes. After the civil war, all American men were allowed to vote, regardless of race. By 1920, women were given the right to suffrage. Today, any legal U.S. citizen (without a felony conviction for which you are currently serving time) over the age of 18 can register and cast their vote each election.

In order to vote, you first must register. Visit [vote.gov](https://www.vote.gov) and select the state or territory where you legally reside. You will need to prove your identification with a government-issued ID or Driver's License, or other document approved by your

area. To register, you simply fill out the form and submit it online. Many states have alternative in-person or mail-in registration processes as well. On this form, you will be asked to provide information such as your full, legal name, your address, your birthdate, and signature. You may also choose to register with a political party. This is a personal choice and all parties and their platforms should be considered before choosing. Local primaries and your ability to participate in them may be affected by this choice. Many people register with the party whose platform aligns more closely with their own political and moral preferences. However, you may also choose not to register with a party and remain unaffiliated.

During an election cycle, voters have a chance to research and learn about the issues and candidates on the ballot. A responsible voter considers all candidates and learns which issues they will focus on and how they plan on representing the people. They also learn about the policies and issues on the ballot and carefully consider both sides, weighing the pros and cons before making a decision. American voters have the additional guidance of the Constitution and Bill of Rights when making voting choices. These documents should align with the policies of any candidate and/or issue on the ballot to protect the rights of all citizens and help the government fulfil its rightful roles. During an election cycle, debates, public meetings, town halls, and rallies are held to promote candidates. Advertisements are often put out and information is put online. Candidates who have held office before also will have a record of their choices and votes in the past, allowing voters to see which way they lean on certain issues.

The process of the election cycle starts long before Election Day, however. First, those who would like to run must register and announce their intent to run for a certain office. This may be president of the U.S., governor of a state, a seat in the Senate. After announcing, they have the opportunity to campaign and participate in primary and caucus debates. During this time, those hoping to gain office try to convince delegates (elected representatives from the same political party as those running for office) to vote for them in primaries.

While one political party may have several hopefuls running, delegates vote for only one candidate who will be nominated as the party's candidate. At the nominating convention for each party, a candidate is chosen and the entire party

supports this candidate during the election. After being nominated by the party, debates are held between candidates from all parties and campaigning to the public begins in earnest.

After months of campaigns, Election Day is held at the beginning of November. This is when citizens get to vote for those nominated by each party. Voting may be done with mail-in ballots, at drop boxes, or at in-person polling sites.

Depending on your state, voting policies and procedures may vary. Ballots should be private, sealed in a provided envelope, and signed by the person voting. This signature is matched to your registration signature to prevent voter fraud. Each state has instructions for voting and areas for drop-off or polling listed on their voting website. Be sure to check your state for specific instructions, locations, and hours for polling and plan to vote in every election. Stealing, damaging, or tampering with ballots is a serious offence and is closely monitored to maintaining the integrity of the election.

After voters turn in their ballots and polling sites close, all ballots are collected and counted. As several million people vote, this can take some time.

Throughout the night and next several days, votes are tallied and the results of the popular vote are announced. The popular vote determines many issues, such as amendments to the constitution, bonds and other policies voted on, and local leaders. However, it does not necessarily determine the winner of the presidential race.

The president is chosen based on electoral votes. Each state's population is counted in a census that occurs every 10 years. This population number affects how many representatives each state has in Congress. The minimum number is 3, but, because of larger populations, many states have more than three representatives. Likewise, states with larger populations have more electoral votes. In all, there are 538 electoral votes cast and the candidate who gets the majority number of 270 or more of those votes, is chosen as president. While those who cast electoral votes can choose who to vote for, they most often vote for the candidate that won the popular vote in their area as they are meant to represent the will of the people. After the election is called, losing candidates concede and the new president is sworn into office in January of the following year.

In the U.S., a new president is chosen every four years. A president can only serve in that office for 2-terms. The vice president, likewise, is limited to four-year terms, but can be elected to that office an unlimited number of times. Federal House representatives have unlimited two-year terms, while Senate representatives have unlimited six-year terms. Supreme Court justices have no terms, but can be removed by impeachment, death, or resignation. The sitting president chooses a replacement justice in these cases.

Each state has its own term limits and guidelines for local offices such as governor, state house, state senate, attorney general, majors, city councils, county commissioners, school boards, and other offices. Voters should research and learn about these limits and the responsibilities for each office in order to make an informed decision about issues and candidates.

Voting is a responsibility of every citizen in the U.S. and has serious outcomes for our country. Every vote should be protected and carefully considered. Voting is more than simply filling out a ballot, it is an opportunity for people to preserve their freedoms and rights, while raising their voices against policies that would erode them.

****Lesson Assignment:** Get online and research the voting registration procedures in your state or territory. Learn about local and federal term limits, offices, and candidates who are currently in office. Search for a sample ballot from your voting area. Finally, ask your parents how they researched and choose candidates in the previous election cycle.

75. Contacting Representatives

After votes are counted and the results are in, all new (or returning) representatives are sworn into their elected office. This usually occurs near Inauguration Day (when the president and vice president are sworn in) in the January following elections. Once sworn into office, representatives go to work.

Depending on the office, duties are different for each representative. The executive branch works to carry out laws that have been put in place and ensure they are enforced. This includes the president, governor, sheriff, and other offices. The legislative branch includes offices such as state and federal Congress

seats, city council members and county commissions and carries the duty to create laws. Finally, the judicial branch, consisting mainly of judges at every level, ensures that the laws are enacted and carried out and match legal standards of the Constitution.

After representatives are sworn in and working, it's important that they hear feedback from their constituents (the people who voted for them). In the United States, representatives should reflect the will of the people they represent rather than their own, or strict party, views. To do this, they often set up phone numbers, email addresses, or snail mail addresses where they can receive opinions and information from those in their voting district. Many times, representatives have assistants and interns who help them read and respond to their mail. However, the information is passed along to the representative to help them make a choice in what direction they work towards.

One example of this is during legislative sessions. During this time, the House and Senate meet to review bills and vote on whether or not these bills should become laws. While there is discussion in committee and during the session, most of the feedback they hear comes from those who have contacted them before the session.

In federal sessions, citizens can read about and track bills, check committee schedules, and find their representative's contact information at [congress.gov](https://www.congress.gov). This website can also be used to find the same information at a state level, allowing you to gather information about bills and contact your state Senate and House representatives. Additionally, some states allow for virtual committee meetings and interactions, which can be found on your state's website. To find your state information, visit [congress.gov/state-legislature-websites](https://www.congress.gov/state-legislature-websites) and click on your state. Additionally, you can find your representatives at [house.gov](https://www.house.gov) by entering your zip code.

When you have a concern or feel strongly about an upcoming decision, your representatives want to hear from you. While they work to understand the will of their constituents, they may not fully understand how a certain decision will affect you in the real-world once it is voted on. Additionally, they cannot specialize in every field and must make decisions based on what they know or learn from those they represent. It is common for representatives to hear from

constituents at public meetings, as well as through contact (phone, email, letter) outside of these meetings.

No matter the format of contact, voters should maintain a formal and respectful tone when discussing matters. You should be clear, concise, and up-front about your concerns. Explain how the matter pertains to you personally, and what your vote would be. Then, lay out the reasons you urge your representative to vote a certain way on the issue. Include studies, polls, or specific evidence you have that leans towards your vote. Remember, they are hearing feedback from several people and time is often short, so be focused and blunt. If you are speaking, be aware of time limits and keep your tone strong and clear, but don't raise your voice. If you are writing, check your letter/email for correct grammar, punctuation, and clarity before sending it.

****Lesson Assignment:** Use the websites included in the lesson to find out who the state Senator for your address is. Then, search through recent (or upcoming) activity in your legislature and write a formal email/letter to them on a topic you feel strongly about. Use concise language and explain to your representative how you feel they should vote on the issue and why.

76. Attending Legislative Sessions and Other Public Meetings

In the U.S., many meetings must be open to the public by law. This allows citizens to be a part of the process of making, enforcing, and judging laws and helps them provide feedback to those representing them. It also makes the processes behind lawmaking transparent, which helps to prevent various types of corruption and favoritism that occur when the public is not allowed access to that information.

Legislative sessions, committee meetings, town halls, city council and planning meetings, and county commission meetings are all open to the public. This helps citizens observe, listen to, and (sometimes) comment on issues as they are being worked on by representatives and provides a way for voters to be informed about what is happening around them.

At a city level, meetings can be found on your city website and are often posted in your city hall. Many of these are regular, weekly meetings. However, if a special issue arises, meetings will be announced within a certain timeframe and in the methods outlined by your city and state laws. Additionally, in some cases the agenda must be made public before the meeting so that citizens can see what is to be discussed and make a decision about whether they should attend or not. It is a good idea to check your city website, follow their social media accounts, read newsletters, and watch for postings to be informed of upcoming meetings.

Your county, too, should have a public method for announcing meetings. While these are often regularly scheduled meetings, special circumstances may arise and call for an emergency meeting. Many counties have a website or social media that they use to announce meetings and they may be posted in certain areas. It's important to take time to familiarize yourself with how your local government makes these announcements and attend meetings, especially if the issues are important to you.

State legislatures meet at a set time each year. This time will depend on the state, but you should be able to find the information on scheduled meetings for your area on your state's legislation website. This schedule should include committee meetings, house meetings, and senate meetings along with an agenda for each day. Legislative meetings can be observed by the public, while committee meetings allow for a public comment time. Many states now have a way to listen to the meetings online or watch on television, as well. In addition to scheduled, yearly meetings, legislatures may be called into an emergency session by the governor of a state if needed.

For federal House and Senate meetings, most people watch the televised version. However, visitor galleries are open to the public and offer a limited number of in-person seats. Passes for these seats must be requested from your representative before you go.

When attending a meeting, you should dress in professional, business attire. Clothing should be the type typically found in a courtroom. A business blouse or button-up shirt with a collar, tie, suit, heels or flats, slacks, skirts that reach the knee, neutral colors, and simple jewelry all reflect a professional attitude and the importance of the meeting.

****Lesson Assignment:** Attend a meeting where your local representatives are making decisions. Listen to the public comments, reasoning given from each side, and how the representatives interact with the public. This may be a city meeting, county meeting, committee meeting, or legislative session.

77. Commenting in Committee

During legislative sessions, the House and Senate meet to discuss and vote on bills which, if passed and approved by the executive branch, become law. This occurs at a state and federal level. Before a bill can be presented on the floor of Congress, however, it must be presented to, reviewed by, and passed through committee.

After a bill is sponsored by a representative, it is given a number and presented to a committee. This committee can hold hearings, where they have the opportunity to hear testimonies from different people affected by the bill. This gives them a chance to gauge public opinion on the bill, consider how it will be implemented in the real-world, and learn from experts in the areas the bill will affect.

The committee can also request prints. These documents can vary and may include published research and statistics on the bill's subject, background information, and staff reports. This allows time to research the need for the bill and the potential outcomes of implementing it as a law and allows for changes and mark-ups to the bill as well as a written committee report, which outlines the intent of the bill.

In addition to the work of committee members and their staff, the hearing period of committee sometimes allows for public comment. This gives citizens a chance to discuss how a bill will affect them, whether or not they feel the bill is necessary, and any concerns in how the bill might be implemented if passed into law. While hearings often accept written testimonies, in-person or virtual verbal testimonies can be powerful ways to stand up for citizen rights and needs. To testify in a hearing, you should check your state's legislative website for committee schedules and, if necessary, submit a registration form. There are

often time-limits on when you can register for a speaking time, so check each bill early.

As with other public meetings, it's important to keep your dress, actions, and speech respectful and formal. Due to time constraints, testimonies are often limited in length so speak clearly and concisely. It's a good idea to write down notes and practice before the meeting. Additionally, be prepared to address counterpoints made by others testifying in polite and concise ways. This will help the committee gather as much information as possible from both sides.

Finally, understanding the procedure for official meetings will help you to understand the legislative process. Committees, the House, and the Senate use Parliamentary Procedure to keep the meetings civil and on-task. This procedure outlines who is allowed to speak, who will guide and pace the meeting, and how rule-breaking is addressed. This procedure states that only one person may speak at a time, only one subject may be discussed at a time, and that all committee members have equal votes on the subject at hand. It allows subjects to be tabled (paused until a later time) or called for a vote. Parliamentary procedure also allows for members to make or second a motion. A motion is a call to action by a committee member. Most motions must have another committee member second the motion, or verbally state that they would like that action to occur, too. After a motion is seconded, it can be discussed and accepted or rejected by the committee. Some motions include: calling a point of order (a rule is being broken and should be addressed), a call to order (bring the meeting back on topic), adjourning (end the meeting), a call for a recess (take a short break from the meeting), creation of an amendment (small change to the wording, but not intent, of the bill), or a motion which specifically addresses the needs of the meeting (e.g. extend the time for the meeting, motion to discuss a certain topic, etc.)

*Sources Cited: *Parliamentary procedure: A brief guide to robert's rules of order*. MRSC. (2024, February 23). <https://mrsc.org/explore-topics/public-meetings/procedures/parliamentary-procedure#motions>

****Lesson Assignment:** Search online for a video that provides an example of Parliamentary Procedure at work. This may be a club meeting or a meeting with city, state, or federal representatives. Follow along as motions are made, discussed, and voted on. Focus on learning the rules for Parliamentary Procedure rather than the meeting subject itself.

78. Service and Non-Profits

Part of being a citizen of any community, is helping and supporting each other. Sometimes this naturally happens as we interact with those around us and we see a need. At times, we have the resources to help in emotional, mental, physical, financial, or other ways. At other times, we are the ones that receive the help. Living among a group of people, as small as a family or as large as the world, gives us unique opportunities to help each other through the challenges of life. Service helps those receiving it, but also helps grow empathy, compassion, skill sets, and connection of everyone who is involved. We feel less lonely and gain strength when we give or receive service.

Service can be as simple as holding a door open for someone or as complicated as organizing a massive fundraising event. While large acts of service often gain recognition and are organized by larger groups, small acts of service occur every day and make a difference in the life of individuals and families.

In the U.S., many acts of service and fundraisers are channeled through non-profit organizations. A non-profit can collect donations of money and supplies for a specific cause. Non-profits may be recognized by the government (e.g. 501c3) and can avoid paying taxes on the donations they collect. Recognized non-profits must register and follow certain rules (e.g. not endorsing a political candidate, not using funds for things outside of their cause, etc.) in order to be valid. Starting a non-profit is a simple process that can be completed online. It requires that the organization state its plan and purpose, name, board of directors, and articles of incorporation (or the rules you will follow within your group). While most non-profits do not pay taxes, they must file proper tax forms each year and make financial records public.

Public records allow people who wish to donate to see how funds are used by the organization. It is a good idea to check these records before donating to any non-profit. While money has to be used to further the stated purpose, many organizations pay their administration large salaries rather than using most of the money to do the tasks they outline in their mission statement. Some non-profits use only 1¢ of every dollar donated directly for the cause while the rest is tied up in pay, marketing, and other expenses. Others use 99¢ of every dollar for the cause while taking a much smaller pay for those working in the organization. While most non-profits must cover expenses like pay, utilities, marketing, and supplies, donor should be aware of and comfortable with the way their donation is used.

Donations given to government-recognized non-profits may be tax deductible. This allows the person donating to claim these charitable donations during their annual tax filing and reduce the amount of taxes they pay. Be sure to keep receipts from your donations in order to claim them on your taxes each year. Additionally, be aware of limits to these deductions set by the IRS.

Donations given to charities through other organizations, however, is not tax-deductible for the person giving. For example, if a store or restaurant asks for a donation to a non-profit, you cannot write it off in your taxes. Rather, the store or restaurant adds these donations up, sends them to the charity, and gets the write-off for themselves. For this reason, it is best to donate directly to the cause you choose. Donations given to organizations or individuals that are not recognized non-profits are not tax-deductible.

Charities exist that are not government recognized and, at times, individuals or groups may directly ask you to help fill a need. Additionally, fundraisers where the giver receives something in return (merchandise/service) do not provide tax-deductions.

Before donating to a cause or individual, it's important to consider how they will use what you give them and what their need really is. Individuals and organizations may lie, commit fraud, or not use money the way you intend. Be sure to carefully research and consider how someone will use your donation before making a decision. Additionally, consider your own financial situation.

Always cover your own (and your family's) needs, including savings, before donating.

****Lesson Assignment:** Over the next week, work to provide a type of service to someone around you each day. This may be a donation, a small act, or a larger, more organized process. At the end of every day, record your progress and actions in a journal and note what you and the receiver gained.

79. Holding a Protest

In the U.S., the First Amendment of the Bill of rights grants every citizen the right to free speech, freedom of religion and the right to gather. You are also granted the right to address grievances against government policies or officials. However, these rights are not absolute and must respectfully follow certain rules and policies in order to protect the same rights for others.

Holding a protest is a common and effective way to gain attention for a cause, let representatives know how you feel about a certain topic, or state your displeasure for certain actions or laws. Legal protests take place on the public square and, sometimes, require permits from the city or area where the protest will take place. Many protests take place at public parks, outside of government buildings, and in town squares. While protests can be held on private property, they are subject to the rules given by the property owner.

When there is an issue you feel needs to be addressed, you can plan a protest. While you are free to protest on your own, marketing and gathering others who share your views helps amplify your voice and bring attention to your goal. While gathering others, it's important to set a location, date, and time. This allows everyone to prepare and meet and helps you gather permits, if needed. Contacting local law enforcement or city officials is a good way to find out about permitting rules in your area. You may want to organize a schedule, print pamphlets, make signs, or plan a march. Many protests create a slogan that is chanted or added to signs to help others understand what the protest is about.

When protesting, it is important to preserve the rights of all people, even if they disagree with you. Protesting should always be peaceful and activities that include rioting, destruction of property, threats, or bodily harm are illegal. Counter-protests may occur, allowing others who do not share your view to oppose you on the public square while you carry out your protest. In the U.S., all opinions are tolerated and allowed to be voiced. Civil conversation and sharing information or your own opinion on a topic is the best way to have your cause heard.

Protesting carries some risk. While you are gathered with others and speaking out about controversial topics, people may get heated. It is important to observe safety rules and have a plan if things get too dangerous. First, secure all valuable belongings where they cannot be stolen. In a large group, it is easy to get bumped into and have pickpockets take your things. Phones, wallets, and other valuable items should be in a closed space at the front of your body (e.g. a backpack carried on your chest) at all times.

Next, large groups can get carried away in a phenomenon known as mob mentality. Rather than thinking for themselves, they begin to simply follow the actions of the group. Often, this can lead to violent acts being taken by people who would never commit those acts on their own. It is important to monitor your own actions and thoughts and step away if you find yourself drawn towards actions like this. The mood of the crowd should also be followed, and you should leave if you ever feel unsafe. It is best to attend a protest with a few people you know well, and help each other stay safe.

Finally, protests can carry anger as they usually address highly emotional issues. Overheating, dehydration, stampeding, fighting, and other dangerous situations can occur. While it is best to avoid these issues altogether, you cannot control the actions of other people. Every protester should have an exit plan in case a situation escalates to unsafe levels. Carrying water and a first aid kit, providing shade and cooling areas, ensuring there is enough space for the number of people, and knowing where to shelter or escape if something goes wrong can protect you and those around you.

Having your voice heard in the public square is one of the most important aspects of American citizenship. Speaking up about what you believe and protecting your

own rights, as well as the rights of those around you, helps unite us and protect us from tyranny. While protests may sometimes seem divisive, they allow for conversation, draw lines in the sand around our rights, and help us to voice what we believe. If organized correctly, they can be powerful forces for preserving freedoms for all Americans.

****Lesson Assignment:** Research two protests online. First, find a protest that went well, noting the aspects that likely protected everyone involved and allowed them to be heard. Then, find a protest that went awry and note the mob mentality and what could've been planned better to prevent this situation. Finally, note an issue you feel strongly about and stage a protest or awareness campaign. This may be in-person, on social media, or simply in a respectful conversation with someone who holds the opposite view. Ensure your parents are comfortable with your actions and that you observe safety and legal policies.

80. Leadership

A leader is someone who leads a group towards a collective goal. While we all have goals, consistently working towards that goal and inspiring others to do the same is another level of work and skill. Throughout history we have seen leaders at all levels of society, from family groups to entire nations. Some leaders have been bad for their community, exhibiting tyrannical traits and leading by threat or force. Other leaders have inspired their community with their humility, courage, and reliance. It's not enough to learn how to lead others, a good leader must develop traits that help them avoid the pitfalls that can come with a feeling of power and influence over others.

When most people think of leaders, they imagine a single person in front of a large group, blazing a trail towards their shared vision. However, good leaders are humble and put themselves on the same level as those they lead. They are doing the work, learning new skills, and pushing forward with reliance even when they want to give up. Great leaders are willing to admit mistakes and correct their actions, if needed. They are honest, trustworthy, and maintain a transparency with those that are working with them. They respect those they are

leading as equal members of the team and understand that everyone is working hard. Leaders should be aware of their strengths and weaknesses and allow others to step into rolls they cannot fill themselves. Leaders are good communicators and use that skill to inspire those following them to continue working towards their collective vision with focus and determination. They show courage, putting themselves at the front of the line to protect those behind them as much as possible. Great leaders understand that their influence and power is a responsibility, rather than a benefit that should be exploited. Finally, great leaders are willing to walk away from those responsibilities after a time and allow others to take their place, giving away what power they may have gained to protect the vision.

Leaders understand the power of delegation. Breaking down tasks into smaller parts and allowing the entire team to participate according to their strengths gives the entire group an advantage. Delegation only works, however, if leaders understand those they are working with. Leaders must know who is trustworthy, what strengths are on their team, and how to use those strengths efficiently. Delegating tasks to people who are unreliable or incompetent will only cause division and slow progress. Giving out tasks to multiple capable people, rather than trying to do everything yourself, is an effective way to further the cause.

Good leaders believe in teamwork. They understand the power of people standing together. They stand with those who are following them and take responsibility for the entire team. When someone is struggling, a good leader works with them to provide proper support. Even delegated tasks sometimes take more than one person to complete. Creating pairs or groups that work well together is a charge that leaders must carefully consider.

Leaders know when to compromise and when to hold strong. Great leaders understand that those they are leading have weaknesses, needs, and wants, just like they do. They work with compassion, rather than an iron fist. They show these same traits when working with those who may oppose their goals, understanding with humility that the opposite side are human, too. Compromise and adjusting plans with the needs of others in mind shows kindness and maturity and builds bridges that may one day be needed to accomplish the goal. It also protects followers from harm that may come with too strict of a rule. However,

those who lead must understand which parts of the objective cannot be compromised on. While schedules, responsibilities, and smaller aspects of a goal may be changeable, the moral or main objective must stand strong. Leaders are able to differentiate these and work towards their goals with compassion.

Most importantly, leaders understand that their position is a responsibility, not a privilege. They are serving those who have a goal common to their own. Bad leaders want to be rulers, with power over others. Good leaders want to help those around them and improve life for everyone. They are willing to listen to followers, but make decisions they think will best serve the group as a whole based on their vision and the feedback they receive. They work to ensure everyone in the group has their needs met, sometimes at the cost of their own. Leaders work harder than anyone else and take responsibility for mistakes, even if they didn't make them themselves. Leadership is a service, a role that good people don't necessarily want to fill but do because it must be done. It should not be looked upon as a method for achieving fame or fortune, but as a way to work with others to get closer to a moral goal.

****Lesson Assignment:** Choose 5-7 of the traits of a good leader outlined in this lesson. Then, write a short essay (1-page or less) about a leader (e.g. someone you know, a historical figure, a current representative, etc.) that exhibits these traits. Outline examples of actions they have taken that prove these traits are a part of their lives and what goals they were/are working towards while taking these actions. Over the next month, work on developing the traits you chose in your own life.

Chapter Twelve: Home Cleaning

81. Cleaning a Bathroom

Keeping your home clean is an important, but not always fun, part of life. A clean home reduces illnesses by cutting down on germs and pollutants in the air. It can help you sleep better and feel more relaxed and in control. A clean home cuts down on repairs by preventing damage and helping you see needed repairs before they grow too large. A clean home is inviting and peaceful and can improve your mental and physical health.

One of the most difficult rooms to clean is the bathroom. This room gets used constantly and the purpose of the room is to remove unwanted germs and waste. This means the bathroom should be cleaned at least once per week.

To begin cleaning the bathroom, first remove any items that don't belong in the room. Take these items to their proper place, clean them, and put them away. This will reduce the clutter you have to work around.

Next, move items that belong in the bathroom but may be in the way of cleaning. For example, soap dispensers on the counter, shampoo bottles in the shower, and rugs on the floor will need to be moved in order to properly clean the counter, shower, and floor. Place these items out of the way while you focus on each area, returning them after cleaning is complete.

Then, pour your toilet cleaner into the toilet bowl, allowing it to soak for 10-15 minutes. You may use bleach, a commercial toilet cleaner, or a mixture of $\frac{1}{2}$ tsp. baking powder, and a quart that is filled with $\frac{3}{4}$ white vinegar, and $\frac{1}{4}$ water. Place your toilet brush into the water as it soaks, allowing the brush to sanitize, as well. When working with cleaning chemicals, it is important not to mix different cleaners as some combinations can cause a toxic gas and become very dangerous. It is also important to allow for proper ventilation so that the fumes from cleaners can escape and you don't breathe them all in. Keeping doors and/or windows open while you clean provides this ventilation, usually. As always, check specific instructions for your cleaner on the package.

As the toilet bowl is soaking, begin your work from the top of the room to the bottom. Use a duster to remove spider webs and dust. Then, look around your bathroom for areas where buildup may be. The most likely areas are in the

shower and bathtub and around the corners of the floor. If lime or other build-up is present, sprinkle the area with a scrubbing powder (e.g. Comet or a mixture of baking soda and vinegar) and allow to sit for 10 minutes.

Next, use a clean rag and an appropriate cleaning solution (don't use bleach if you've already used vinegar in the bathroom, this is a dangerous combination) to wipe down the walls. If mold is present, use a solution that is made to prevent and remove mold.

Then, use a shower-cleaning solution to spray down your shower and bathtub. Spray the faucets and knobs as well. Follow instructions on the bottle for wait times. Then, use a clean rag to wipe down the walls, knobs, faucets, and bottom of the tub. If there are stubborn spots or build-up, you may need to clean more than once or use a pumice stone. Rinse with hot water and dry or allow to air dry. If you have a glass door on your shower, using a squeegee to clear water droplets can help make it look cleaner. This is also a good time to check shower curtain and liners, cleaning or replacing them as needed according to directions on the tag. Replace the items you removed from the shower.

Next, wash the sink and counter area using a commercial cleaner or hot, soapy water. Use a clean rag or sponge to scrub each area until it is clean. Use dish soap to clean the toothbrush holder as you would a dish. Clean soap dispensers, tissue holders, and other items on the counter. Rinse and dry, then replace the items you removed.

Clean all mirrors and windows with an appropriate cleaning solution. Wipe down doors, door knobs, cabinets, and toilet paper holders. Empty trash cans and clean with a sanitizing wipe or rag and clean, soapy water.

Next, clean the outside of the toilet. The rag used for the toilet should be designated only for that use. Do not use it to clean any other area. It should be washed and sanitized after every use. Add disinfecting cleaner to your rag and wipe down the handle, the top of the toilet, the toilet seat cover (top and bottom), the toilet seat (top and bottom) and the top and outside of the toilet bowl. Then, using a toilet brush, clean the inside of the bowl, scrubbing the sides, bottom, and rim. After cleaning, allow the cleaner to soak a few more minutes and scrub again. Finally, flush the cleaner and allow your brush to dry before

putting it away. Problem areas can be cleaned with a pumice stone designated only to toilet use.

Finally, clean the bathroom floors. Move any items in the way, sweep, and use a mopping detergent or warm, soapy water to mop. Pay special attention to the area around the toilet, which can get dirty quickly. Allow the floor to dry, clean your mop and bucket, and replace rugs and towels (which should be washed and dried). Replenish supplies as needed (e.g. soap dispenser, toilet paper, hygiene products, shampoo, conditioner, body wash) and replace loofahs and body sponges monthly.

To keep your bathroom clean, take time after each use to clean up spills, place items in their correct spot, and wipe down the shower. Use a ventilation fan to reduce moisture on the walls and ceiling and prevent mold. Empty trash cans as needed and sweep regularly. Odors can be reduced by allowing proper ventilation and/or placing an air freshener in the room.

*Lesson Assignment: Practice the skills you learned today by cleaning the bathroom you use most in your home. Ask a parent which cleaners are appropriate for each area before starting.

82. Cleaning a Kitchen

The most important room to keep clean in your home is also probably the most time-consuming. The kitchen is known as the heart of the home, as everything in a family seems to revolve around it. Often, a kitchen is used for cooking and eating. However, it is also the area where food and dishes are stored, people gather to talk, play games, and work, and the area everyone walks through. Due to this high volume of use, a kitchen is constantly at risk for becoming messy and hosting dangerous germs.

While cleaning the kitchen may feel overwhelming, if done regularly and maintained correctly, it can be broken down into smaller daily and weekly tasks. After each meal, the dining table should be cleared and wiped down with a clean rag and/or sanitizing wipe. Extra food should be properly stored in the refrigerator and waste should be disposed of. Dishes should be placed in the dishwasher (which should run when full, or at least once per day) or washed in the sink. Likewise, counters should be cleared of debris and clutter, placing items

neatly into proper storage and disposing of waste. Dishes used during preparation and cooking should also be cleaned. Counters should then be wiped down with a clean rag, soap, and water or sanitizing wipes. Certain types of counters may require specific cleaning detergents. The stovetop should be cleaned after each use. This can be done with a sponge and warm, soapy water, with a mixture of vinegar and baking soda, or with commercial cleaners made for stovetops. Burners should be cold when you clean them. Areas between burners, knobs, and sides of the stovetop should be cleaned as well. Regularly clean the vent hood above the stovetop, as well.

Each day, the sink should be cleaned out using a rag and warm, soapy water or a sanitizing wipe. A mixture of vinegar and baking soda can be used to treat build-up. After each use, the rag should be cleaned and sanitized before another use.

Regularly clean your garbage disposal by making ice cubes out of vinegar and placing them in the disposal. Then, run the disposal as you pour warm water over the ice cubes. This will help clean the disposal, reduce odors, and sharpen the blades.

At least once a month, clean out the cabinets in your kitchen and pantry. Remove items and wipe down cabinets with a rag covered in warm, soapy water. Place items away from the cabinet while cleaning to prevent dust and crumbs from falling on your clean dishes and food. Rinse the rag after each cabinet. Replace the items when dry. Dispose of any expired, stale, or soiled foods. Wipe down the outside of your cabinets (if they are wood, you will need a specific cleaner for this). Wipe down counters when you are finished.

When needed, clean your oven. Remove the racks and soak them in warm, soapy water for a few hours before scrubbing them with a sponge. Use a commercial cleaning solution and follow the instructions on the package to clean the oven. Often this requires spraying down the oven, waiting for several hours (often overnight), and then wiping and rinsing the oven. For heavy stains, additional cleanings may be required. Alternatively, electric ovens have a self-cleaning mode. This heats the oven to a high temperature, burning debris and killing germs. This mode requires high-heat and a few hours. Consult the owner's manual for your oven to use this feature.

Clean your refrigerator at least once a month. Remove all items and use a clean rag or sponge to wipe down every surface (sides, shelves, drawers, etc.) with a mixture of 2 Tbsp. baking soda and 1 quart of water. Use another rag and warm water to rinse the areas you've cleaned, then dry with a clean towel. Discard any expired or spoiled foods and replace the items you want to keep.

Your freezer should be regularly cleaned, as well. To do this, remove all items from the freezer and place them in a cooler. Unplug the freezer and allow it to defrost. If your freezer is connected to the refrigerator, you will need to cool the items in the fridge in a cooler, too. Combine 1 cup of water, 1 tsp. dish soap, and 1 tsp. of vinegar to make a cleaning solution. Use this to wipe down the inside of the freezer. Use a clean rag and warm water to rinse the surfaces. Plug the freezer back in and allow it to cool back down. Replace items that are still good and discard any expired or spoiled items.

Your microwave should be cleaned at least once per week. To do this, use a rag with warm, soapy water or a sanitizing wipe to wipe down the inside surfaces (top, bottom, back, and sides). Carefully remove the glass tray and wipe under it. Clean the top and bottom of the tray and return it. Then, wipe down the outside, including buttons and handles. Consult owner's manuals to clean and properly store other small appliances. Additionally, dishwashers should be wiped down (inside and out) regularly and filters should be checked and cleaned. Consult your owner's manual for directions.

Remove cobwebs, wash walls, and dust as needed, cleaning counters and tables afterwards. Finally, sweep and mop the floors at least weekly. Take out the trash daily and wipe down the trash can as needed. Additionally, chairs stools, floors, and other areas may need to be spot-cleaned after spills.

*Lesson Assignment: Clean you family kitchen today as instructed above. Consult with an adult about proper cleaners and supplies. When finished, ask your parent what you missed and ask them to teach you how to properly clean those areas.

83. Cleaning Bedrooms

A clean bedroom can help you relax and sleep better. It provides a sense of control and peace, allows you to find things more easily, and cuts down on germs and bugs. Your room is the area that shows off your personality and interests. It

should be a place you feel comfortable. Organizing and keeping your room clean can help.

When cleaning your room, open the windows (if weather allows) to air it out. This will bring in fresh air, reduce odors, and provide a way for dust to escape. Gather supplies needed to clean as your room airs out. You will need a garbage bag, a laundry basket or hamper, dusting supplies, and supplies to clean your floor (e.g. vacuum, broom and mop). You may also window cleaning supplies, organization boxes, hangers, or containers.

First, walk through your room and pick up any dirty laundry. Place this in the hamper. Additionally, remove blankets, sheets, and pillow cases from your bed once a week to launder. Fold or hang clean laundry in its proper place.

Next, do another walk through, this time picking up garbage and unwanted items. Place these items in the garbage bag and keep the bag near in case you find more as you begin to clean.

Working in sections, pick up items and furniture that are out of place. Put these items where they belong, using the organization tools you gathered as needed. For example, books should be placed on a bookshelf, toys in a toy box, craft materials on a specific shelf or in a specific box, etc. If needed, ask an adult for organization help.

Then, use a duster or microfiber cloth to remove cobwebs and dust surfaces. Pay special attention to fans, ceiling fans, baseboards, and lights. Dust, or remove and wash, curtains at least once per month. Wipe down walls as needed. Clean windows with proper cleaner. Clean lampshades with a lint roller. Pick up areas under furniture (check under bed, desk, etc.). Take rugs outside and beat the dust from them or vacuum them.

Finally, clean the floors. This may mean vacuuming carpet or sweeping and mopping tile, vinyl, or hardwood floors. Be sure to clean areas under furniture. Add an air freshener as needed, replace clean bedding, and close your windows.

*Lesson Assignment: Clean and organize your bedroom according to the instructions above.

84. Cleaning Shared Spaces

Living rooms, laundry rooms, playrooms, dining rooms, hallways, and other shared areas in homes need to be cleaned as well. Often, certain areas or chores will be assigned to specific family members. However, it is important that everyone knows how to clean these areas. Though specific parts of cleaning these rooms will be different for each family, some general cleaning tips can be followed in all of them.

First, work from top to bottom when cleaning an area. Remove cobwebs and dust, wipe down walls, and clean lighting and fans first. Remove unwanted items (e.g. garbage or items that belong in different rooms) and place items that belong in that room in their proper place. Finally, clean the floor. This may include vacuuming, moping, and/or cleaning rugs.

Some rooms may require cleaning of specific items. Living rooms often have televisions that can be cleaned with a microfiber cloth. Laundry rooms require cleaning of the washer and/or dryer. Hallways may include vents or pictures that need to be dusted in a specific way. Playrooms may require organization of toys and games.

***Lesson Assignment:** Clean the shared spaces in your home today. Ask an adult for specific items or areas that you missed and learn how to address these.

85. Creating a Chore Chart

The key to having a clean home is setting up a routine and sticking to it. Regular cleaning and chores will help reduce clutter, prevent build-up, and make cleaning easier in the long-run. Breaking chores up according to a schedule and expected responsibilities for each family member can make home cleaning more manageable.

Chore charts are a great way to organize family members and chores. No two families will have the same chore chart. When creating a chore chart, it is important to consider which chores need to be done, how often each chore needs to be done, who is responsible enough to do each chore in the family, and chores should be rotated between people or assigned to a specific person. Often, as children grow and learn more skills, chore charts change to accommodate these changes and teach children new skills.

A family should work together to make a chore chart. This way, everyone is allowed input and feels responsible for maintaining a clean home. As each person lives in the home, only very small children (under the age of 2) should be excluded from chores. First, you will need to make a list of the chores your family is required to do and how often they are required. This should include daily, weekly, monthly, quarterly, seasonal, and annual chores. Next, families should discuss the abilities and knowledge of each family member in regards to each chore. Younger children may only be able to clean their rooms and pick up their toys. Older children may be able to help with taking out trash, setting or clearing the table, or cleaning floors. Teens can mow the lawn, wash cars, clean and fold laundry, and do the dishes. Considerations should be made to ensure a fair (but not necessarily equal) division of chores. For example, if there are two teens in the home they may rotate weeks when they mow the lawn, giving each teen a week or work and a week off. Or, one teen may be responsible for mowing while another is in charge of snow removal. Alternatively, one may do inside chores (e.g. dishes, cooking) while another does chores outside.

Once chores are assigned to each family and a schedule is created, a chore chart can be made. This may include a printed chart, a chart on a blackboard or white board, a list of chores that is color-coded for each person, a sticker chart, or a variety of other methods. It may simply be a list of chores that are expected to be done by the end of the day. Choose one that you think will work for your family and try it out. If it doesn't work, try another method. Use the internet to find new ideas or even ready-made chore charts.

Finally, the chore chart will need to be used every day by each family member. Place it in an area where each person will see it. Reinforce the fact that everyone needs to work on their chores to help things run smoothly. For the first few weeks, help each other remember to use the chore chart and work to complete their chores. Soon, it will become habit.

***Lesson Assignment:** With your family, create a chore chart that reflects the chores and needs of your family members. Use this chore chart for a few weeks. Then, sit down together and discuss what is or is not working about it. Make changes as needed.

Chapter Thirteen: Etiquette

86. How to Answer a Phone

Answer a phone is a part of everyday life, as well as professional life, for many. However, the way you answer the phone can set the tone for the entire conversation. Understanding how to properly answer and carry on a phone conversation is vital to interacting with others in today's world.

Professional phone calls (at work) are best answered after two or three rings. A polite greeting, such as "Hello, how may I help you?" or "Good afternoon, this is (business name)" can start the conversation. Likewise, you can introduce yourself by saying, "Thank you for calling (business name). This is (your name). How may I help you?"

After answering, it may be necessary to find out who you are talking to. Some people offer this information on their own. Others need to be politely asked. You may say, "May I ask who is calling?" After they state their name, you should address them as Mr., Ms., or Mrs. (last name).

Throughout the conversation, ensure the mouthpiece is near your mouth and you speak at a normal conversation level. If asked to speak up, raise your voice slightly until the caller can hear you. Remain polite and patient, even if the caller is not, and use formal language for a professional call.

When receiving a call on your own personal phone (home or mobile), you may be less formal. However, some rules still apply. Answer in a quiet place where it is easy to hear the caller. Walk away from the things you are doing so that you are not distracted. If you are in a conversation, end it before answering.

Answer simply by saying, "Hello" in a calm, pleasant voice. Alternatively, you could say "Hello, this is (name)" or "The (last name)'s residence). If you recognize the number or caller ID, you may answer by saying, "Hello, (name of caller)."

Throughout the call, speak clearly at your normal conversation volume. If needed, turn the volume up on your phone, move to an area with a better signal, or ask the caller to repeat their part of the conversation if it is difficult to hear. Try not to talk on the phone while eating, chewing gum, engaging in a conversation with someone physically present, or checking out at a store. It is

also rude to talk on the phone while eating out with another person or group of people.

Taking a message is an important part of both professional and personal phone usage. At times, a caller may be looking for someone who is not there or may require a return phone call. In this case, say “(Person they want to talk to) is not available. Can I take a message?” Write down the caller’s name, phone number, and short message. Then, ensure it gets delivered to the intended person.

Alternatively, if you need to gather more information and return a call later you could say, “I don’t have that information at the moment. I can check and get back to you shortly.” Again, you will need to record the caller’s name, phone number, and question. After hanging up the phone, quickly gather the needed information and return the call.

When making a call, try not to be distracted by other things. Go to a quiet area and dial the number. When the person answers, politely say “Hello, may I speak to (name of person you are calling).” When the correct person is on the line, you may say, “Hello, (their name), this is (your name). I’m calling regarding (reason you called).” From there, you simply continue a normal conversation.

When it’s time to leave the call, politely state that you are ready to hang up by saying something like: “Thank you for your call today. Is there anything else I can help you with?” or “Thank you for calling. Have a great day. Goodbye.” In more informal calls, you may simply state, “I need to go. Talk to you later. Bye.”

*Lesson Assignment: Make and receive a phone call using the etiquette above. Answer politely, take a message as needed, carry on a conversation, and end the call using proper manners.

87. Fancy Dinner

Most of the time, dinner is a family gathered around a table with informal, but polite etiquette including use of forks, lack of speaking with your mouth full, a few “please pass the potatoes,” and “thank you for the pizza, mom.” However, some occasions call for a fancier, more formal meal, with additional rules for proper manners.

If you are attending a fancy dinner, either at a restaurant or catered event, your dress will likely be the first thing you consider. Dress should be appropriate to the

venue and is usually listed on the invitation or restaurant's website. Women and girls are usually expected to wear a nice dress or suit, while men should wear a jacket and tie.

Once you arrive at the venue, you will need to be seated. At times, this means someone will be waiting to ask your name and lead you to your table.

Alternatively, tables may be labeled with place cards for each guest's name.

Once seated, do not place belongings (purse, phone, keys) on the table. They may be hung on your seat or collected by the staff. If a menu is available, review it and make your selection. Guests should order before the host. Hosts should set up payment with the venue before the event takes place, including a budget and price limits. The host is the person who invited everyone there. If the event is catered, you or the host likely made the choice before you arrived.

When the food arrives, wait until everyone is served and the host places his/her napkin on their lap. Then, place your napkin on your lap and begin eating. If you need to leave your seat during the meal, place your napkin on your chair seat until you return. When you are finished with your meal, the napkin goes on the left side of your plate area. This should be done after the host has signaled that he/she is finished. Additionally, place your knife and fork in the finished position on your plate (see image below).



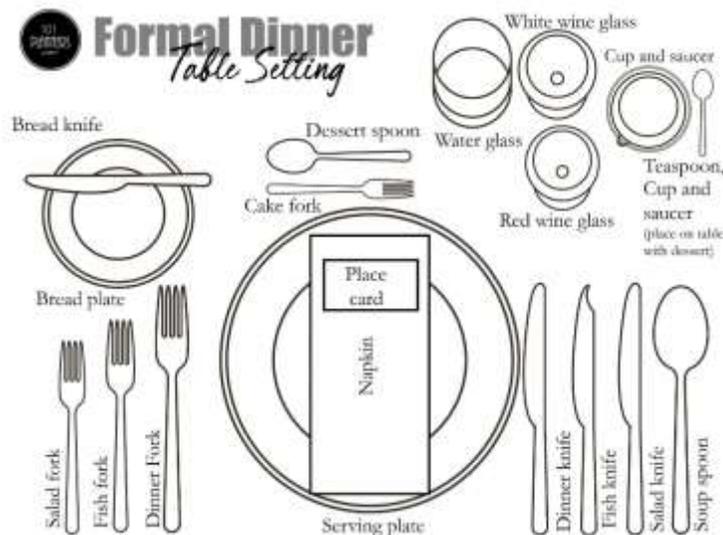
During the meal, take small, manageable bites using the proper silverware (see more information below). Do not reach across the table or eat off another guest's plate. If you would like to share food, place a small piece on the bread plate of the other person.

Throughout the meal, be polite and pleasant to staff. If a mistake or problem occurs, quietly address it with someone who can help. Making eye contact or raising your hand with your index finger extended as they walk by can signal to a waiter that you need help. There is no need for raised voices or angry words.

Most of the time, staff are working hard in a stressful job and are very willing to correct any mistakes. If your food is not cooked properly, ask other guests to begin eating while you wait for your food.

During the meal, wipe your fingers and mouth with your napkin, then return it to your lap. Chew with your mouth closed and keep your food located on your own plates. Sit up straight and keep your elbows off the table. Do not answer any calls (place your phone on vibrate or silent). Eat until you are full, but do not feel pressured to finish the entire meal. It's actually polite to leave a small amount of food on the plate to signal that you were satisfied with the meal. Sip from your glass in the same spot each time to avoid leaving excessive marks. Children should be asked to be excused from the table when finished eating, allowing the adults to talk while they go off to play.

The table setting will vary based on how fancy or casual the meal is. Sitting down to a place setting of several pieces of silverware, plates, and glasses, however, can be overwhelming and confusing. If all else fails, remember to work your way through the utensil starting at the outside and working your way in with each course. There is a proper use for each item on a place setting, however.



****Lesson Assignment:** Host a formal dinner for your family and friends. Learn how to properly create invitations, send them out, cook a meal, and set the table. Request appropriate dress and do your best to create the atmosphere of a fancy venue. Ask siblings or friends to serve (promise them food after the meal) or serve yourself. Have fun practicing the etiquette taught in this lesson.

88. Introducing Yourself

Introducing yourself can be an intimidating, but necessary part of everyday life. Several situations necessitate telling others who you are such as: meeting a new person, starting a new class, interviewing for a job, professional networking, through emails or letters, or when giving a presentation or talk.

In any situation, there are some common steps and tips for success when introducing yourself. First, dress appropriately for the occasion. Wear clothing that helps you feel confident and presents the image you want the other person(s) to see. Second, speak clearly and use appropriate body language. Make eye contact, smile, and listen when they speak. Finally, use appropriate language. In professional settings, such as a job interview or presentation, your language should be more formal. In casual settings, such as a first date or meeting a new neighbor, wording can be more relaxed.

When meeting a new person, consider the context. There are several different scenarios that may lead to you having to introduce yourself. Perhaps you are on a first date, meeting a friend of a friend at a party, welcoming a new neighbor, or showing a new classmate or co-worker around. In many situations, casual language is appropriate and can help others feel more comfortable. A simple, “Hi, I’m (your name). It’s so nice to meet you!” can get the conversation started. Stating something you have in common with the other person (e.g. I live just around the block, (friend’s name) has told me so much about you, welcome to the school) can help you connect further. You may also want to share a few relevant things (e.g. I have kid’s the same age as yours, you can get homework help here, I’ve heard you like (common hobby/interest, too).

If you are meeting a client or potential business partner, however, language will likely be more formal, but still include some casual conversation. Addressing the other person by their title and last name, discussing only relevant business topics, and politely working to address needs and concerns of the other person will be the focus, rather than getting to know them on a personal level.

Starting a new class or attending a conference may lead to a group self-introduction. Many of us have been in these awkward “go around the circle” situations. Usually, participants are asked to share their name and something interesting about themselves. It can help to have a good story or fact prepared

ahead of time as these situations are a regular part of life. If you can't think of something about you that you think is interesting, share an appropriate part of your everyday life (e.g. a favorite food, hobby, pet, talent or skill). Most of the time, others will find it much more interesting than you think.

Interviewing for a job can be a very stressful experience for many people. First impressions are important when you only have a few minutes to convince someone that you are a good fit for an opening. However, job interviews begin before you arrive. Research the company and learn what you can about their goals and normal operations. This will help you be better prepared for a conversation with your interviewer.

Be sure to arrive a few minutes early. When you arrive for the interview, introduce yourself with your full name and state that you are there for an interview at (time) with (interviewer) or for (job title). Patiently wait, resisting the urge to play on your phone, read a book, or be otherwise distracted. When called, quickly stand and walk towards the person calling you. If you are being led to the interviewer, thank the person for their help. If the person calling you is the interviewer, introduce yourself using your full name and shake the hand of the interviewer firmly, introducing yourself again. When the interviewer introduces themselves, respond with "It's nice to meet you, (Mr./Ms./Mrs. their last name).

During the interview, be polite and professional. Use open body language (don't cross your arms, sit up straight, face the interviewer). Present them with your resume, if necessary. Use jargon and language appropriate to the job. Be prepared to share information about your professional background and experience, about why you want the job, and about what you can add to their company. Avoid personal information not relevant to the job. Research and understand appropriate laws for questions that can and cannot be asked in an interview. If asked an inappropriate question, simply state that you are not comfortable sharing that information at this time. Most interviewers understand the laws and won't push. Take time to think about questions before answering them and allow your own personality, work ethic, and professionalism to show. At the end of the interview, ask appropriate questions (e.g. What does a typical day in this role look like?, What salary range is usually appropriate for this role?, What opportunities for advancement are present in your company?, What do you

enjoy about working here?, What do you enjoy about the culture of the company?). Remember, a job is a two-way contract between employer and employee. It should fit your needs as much as you fit theirs.

Networking, or meeting with others in your professional field or location, can provide an opportunity to build your business, meet new clients, or get to know suppliers. It's a great way to market and build a team that mutually benefits your own business and others. Networking can take place at conferences, luncheons, conventions, or online. It is more formal than a casual meeting, but less professional than a job interview. When introducing yourself during a networking opportunity, start by smiling, shaking hands, and giving your name and briefly explaining what you do. Many times, a brief explanation of your job/business is better than an official job title. "CEO of (Jewelry Business name)" doesn't give as much information as "I create and market unique, homemade, economically friendly jewelry." Next, listen intently as the other person shares their own name and what they do. Discuss aspects of your businesses that share commonalities or could benefit each other. This conversation should be brief, allowing you both to contact as many people as possible during the event. If you both think you may want to continue the relationship, exchange business cards and follow-up after the event.

Emails and letters are often an area where people forget to introduce themselves. However, any form of communication requires getting to know relevant details about the person you are conversing with.

In emails, your first want to create a subject line that gives the reader an understanding of what you would like to discuss. This helps ensure that your email doesn't get discarded or put into a spam folder. Begin with a greeting and then list the recipient's name. State your name and title in the first paragraph. If you referred to this person by another, mention the mutual contact. Then, politely request feedback or advice rather than demanding action from the other person in the second paragraph. The final paragraph should show appreciation for their time or help. Emails should be signed at the bottom with your full name, email address, and phone number. Before sending, correct spelling and grammar.

Letters can include the same information as emails, but can be longer in length and richer in detail. Letters should include the name and address of the person

sending it at the top left corner. Below that, after an empty line, the date should be written. Leaving another empty line below the date, the letter can start with a greeting such as “Dear, (Mr./Mrs./Ms.). After skipping another line, you begin your first paragraph. Leave a line between each paragraph. At the bottom, leave a closing greeting (Sincerely,) with your name and title below.

When giving a presentation, you may be introduced before you come onto the stage or stand in front of the conference room. At other times, you may be expected to introduce yourself. Begin with a simple greeting (e.g. Hello). Then, state your full name and the organization/school/group you are there to represent. Give a short summary of the reason for your presentation (e.g. I am here to tell you how to get rich) and proof that you can fulfil this promise (e.g. It’s worked for thousands of people). If you are giving a presentation where the people being presented to already know you (e.g. co-workers, classroom), you don’t need to introduce yourself. You can simply begin your presentation with a statistic, quote, or joke relevant to your subject matter.

****Lesson Assignment:** Choose one of the above situations in which you may need to introduce yourself and practice an appropriate introduction. Ask a friend or family member to act as the second person and work to carry on a conversation as appropriate.

89. Saying Goodbye

Introductions are the beginning of a conversation. However, that conversation must end eventually. The way you leave a conversation or situation is just as important as entering it. It is the final impression you make as you part ways and will likely be what is remembered most.

The first step to knowing how to end a conversation is understanding when to end a conversation. Good conversations can be ended when one or both of you has run out of things to say, someone interrupts, the conversation has become repetitive, or you are ready for a break. Great conversations end before either of you get to those points. They can be ended when the purpose of the conversation has been fulfilled, but you both are still enjoying talking to each other. This timing will be dependent upon the situation and level of formality to the conversation.

Social situations, such as dinners, parties, dates, or conversations with friends, can be ended by bringing up future plans of the other person (e.g. Well, have fun tonight at dinner with your mom). This signals that you are done talking and shows you were listening to what they have been saying. Alternatively, you could bring up plans you have together (e.g. I'd like to continue this chat at brunch tomorrow). You can also state one more thing (e.g. Before I go, I wanted to let you know that....) or your own future plans (e.g. I need to go check with (other person). Talk to you later). Other common phrases are: I'll leave you to finish (activity they were doing), or Tell your (family member) I said hello.

Professional situations call for more formality when leaving a conversation. If you are in an office, standing or moving towards the door can signal the need for the conversation to end. Stating that you need to get back to your work, bringing up the fact that they are busy and you need to leave them to their own work, or encouraging continuing the conversation over lunch can also bring the conversation to an end.

Interviews are most often ended by the interviewer. However, it is important to understand the procedure and follow-up expectations of a job interview. After the interview, many interviewers will tell you they will contact you shortly with a decision. Politely thank them for their time and let them know you are looking forward to their call. It may be appropriate for you to send a follow-up email or handwritten letter to thank them again.

Virtual meetings are another place where it may be necessary to signal the end of a conversation. In classes, they are usually ended based on a time constraint. Work meetings, however, can seemingly go on forever. Pointing out that the agenda has been finished, asking if anyone has any additional concerns, bringing up deadlines, discussing expected follow-ups, or mentioning future plans (another call, your own work, etc.) can help bring the conversation to a close.

Resigning from a job can be just as stressful as beginning it. However, there is an expected and proper procedure. First, give written notice to your employer early, usually at least two weeks before you plan to leave. Thank them for the opportunity to work there, point out a few things you've improved upon or learned from the job, and state that you are moving on. This gives your employer an opportunity to find a replacement and shows that you still respect those

working there. Discussing plans in person with your boss can also show consideration to your company and co-workers. Continue your same work ethic until the last day, being respectful of the goals of the company and your co-workers. Train or help out the new person that will be replacing you if asked.

The best way to leave any conversation is by letting the other person know they were heard and their opinions were valued, showing appreciation for their company and time, and understanding the correct timing of the exit.

*Practice ending a conversation in a social situation using the tips above. Afterwards, reflect on how it went, pointing out things you would've done differently as well as things that went well. Practice again, using the observations from the first conversation and working to improve this skill.

90. Proper Dress (casual, tying a tie, etc)

Though we often hate to admit it, the first thing we see about another person is often the way they dress and present themselves. First impressions are usually given before we ever open our mouths. Different social situations call for different dress codes and often, it is simply expected that you understand what each means. Below are some of the commonly used wording for different dress codes and an explanation of what is expected:

1. Casual. This is the most common dress code in many people's lives. It is appropriate for most day-to-day gatherings with friends or family, extracurricular activities, and smaller events. It is most common for outdoor events. It consists of jeans and a solid-colored t-shirt absent of graphics or rips (except in very casual situations like concerts, family BBQ's, birthday parties). In warmer weather, long shorts or a sundress are also appropriate.
2. Dressy casual. Also known as smart casual, this dress code is slightly more formal than casual. It generally is used when attending religious services, job interviews, meetings, and business dinners and emphasizes professionalism. Jumpsuits, blazers, and button-down tops are appropriate, as are dress shoes or slight heels.
3. Business casual. More formal than dressy casual and usually used for everyday business attire. It includes a collar and button-up shirt or polo, sweater, and dress

pants, khakis, or pencil skirts. It can include a blazer or sport coat, but not usually a suit, and closed-toe shoes.

4. Cocktail. Also known as semi-formal, this style is usually found at evening events such as weddings, receptions, fundraisers, and more formal company parties. Men should wear dress shirts and casual suits with closed-toe shoes. Women wear cocktail dresses, which are between evening gowns and sundresses in a solid color, most often black. More sparkle, frill, and skin are appropriate, but don't overdo it.

5. Black tie optional. This gives you the choice of black tie or cocktail dress.

6. Black tie. This is a formal dress usually reserved for fancy evening events such as theater, ballet, opera, or very fancy parties and fundraisers. Men wear a black tuxedo, complete with cufflinks, a black bow tie, and a white pocket square. Leather shoes and black dress socks are expected while cummerbunds and vests are optional. Women wear a knee to floor-length evening dress with chosen accessories and matching shoes. A clutch and jewelry are appropriate.

7. White tie. Very formal and reserved for galas and upper-level government-sponsored dinners. Men wear a tailcoat, wing-collar white shirt, white bowties, white vest, and mother of pearl shirt studs. Women are expected to wear a floor-length ball gown and long gloves with appropriate accessories.

Some general rules for dress include:

- Loungewear (pajamas) is meant for at-home use only. Do not wear this type of clothing outside of your home.
- Athletic wear and uniforms for certain activities (e.g. dance, karate, yoga, exercise, acting costumes) should only be worn at the venue where that specific activity is taking place.
- Black is the generally accepted color to wear at a funeral.
- Women should not wear white to a wedding unless they are the bride
- Clothing should reflect personal style but still cover an appropriate amount of the body relevant to the venue. Clothing, including shoes, should take into consideration the safety requirements of the activity.
- Invitations often give a clue or explicitly state the formality of an event. If in doubt, contact the host and ask about proper dress code.

- Certain religious ceremonies and rites require specific clothing. Contact your religious leader to best understand these requirements.
- Attention should be paid to general hygiene, including cleaning the body, combing or styling the hair, and proper care of clothing.
- Style is a personal choice and you should wear what you feel most comfortable and confident in. Clothing should fit properly and reflect what you want people to know about you.

*Information for this lesson was found at: *How to dress for any occasion: A guide to 7 dress codes - 2022*. MasterClass. (n.d.). Retrieved August 21, 2022, from <https://www.masterclass.com/articles/a-guide-to-dress-codes#a-guide-to-7-different-dress-codes>

**Lesson Assignment: Travel to a nearby thrift store and create outfits that match each dress code. Take a picture in each and create a scrapbook, labeled with each dress code and when it is appropriate. If needed, travel to a more formal dress store to try on the fancier clothing and get your picture.

Chapter Fourteen: Car Maintenance

91. How to Check Fluids and Windshield Wipers

Once you begin to drive, you have the added responsibility of caring for and maintaining your vehicle. Though some tasks may require help from a professional mechanic, many tasks, such as keeping your car clean, maintaining fluid levels, filling your car with gas, changing a tire, and changing the battery can be done at home with some basic skills and knowledge. It's important to learn these skills, as a well-maintained vehicle can keep you safer on the road and function more efficiently and for a longer time.

While each vehicle is different, all vehicles come with an owner's manual. This important document will help you understand regular maintenance schedules, locations of items within your vehicle, and how to best care for it. It's a good idea to become familiar with your owner's manual and read through it as needed to help guide you in maintenance. Additionally, you should practice the following skills first with someone experienced in performing them and always ask for help if a task is uncomfortable or unfamiliar as moving parts and fluids within your car can cause injury to your or damage to your car if not handled correctly.

One of the most basic skills all drivers should have is knowing how to open and close the hood. In most cases, the car should be cold (not ran in a few hours), on level ground, and turned off. This reduces the chance of injury from steam and hot liquids, allows for accurate readings, and reduces the amount of moving or heated parts within the engine compartment. To open the hood, first locate the hood release latch, a lever on the driver's side with a picture of a car with the hood up. Pull this latch, unlocking the hood and allowing it to pop up slightly after a clicking sound. Next, move to the front of the car and locate the secondary latch under the hood, usually near the center of your car. This can be done by running your fingers under the hood. Pull the secondary latch, completely releasing the lock on the hood. Next, pull the hood upwards, opening it completely. Your hood may be equipped with hydraulic struts, holding the hood open for you when you release it. Other cars don't have these struts, and you will need to locate the prop rod, a metal rod that can be pulled out and secured to hold the hood in place.

With the hood open, the car off, and the engine cooled you can now perform basic checks and maintenance on your vehicle. While working, ensure that you keep your body, jewelry, and clothing away from moving parts, avoid hot areas, and never open a fluid container that is heated.

Oil is an important component in your vehicle. It allows your car to run smoothly by providing lubrication between parts, cooling places that experience a lot of friction, and cleaning the moving pieces. To check the oil in your car, locate the oil dipstick. This is usually a colorful rod with a circle on the top near the front of your engine compartment. It may also be labeled OIL. Remove the dipstick carefully, as it will be covered in oil. Use a clean paper towel or shop towel to wipe the dipstick clean of oil. Reinsert the dipstick, ensuring that it is pushed completely into the oil compartment. Then pull the dipstick straight out again. Look at the bottom of the dipstick to assess the oil level. Markings on the dipstick will show the appropriate range. If the oil is too low or too high, changes need to be made to ensure the proper function of your car (see lesson 92). Additionally, check the color and texture of the oil. It should be a smooth, amber color. If the oil is too dark or gritty it may be time for an oil change. Finally, reinsert the dipstick, ensuring that it is securely attached. Oil should be checked once a month and changed according to the recommendations on your owner's manual.

Next, check your windshield washer fluid. This fluid is usually located in a reservoir towards the back of the engine compartment near the windshield, as it is used to clean your windshield while operating the vehicle. This reservoir is often marked with an image of a windshield being sprayed with liquid. To check this fluid level, simply locate the fill line on the reservoir. If the liquid is below the fill line, remove the lid and add additional windshield washer fluid, which can be purchased at most car repair retailers. In cold weather, ensure that you use a fluid that has been treated so that it will not freeze. This fluid should also be checked once a month.

While checking your windshield washer fluid, it's a good idea to check your windshield wipers. Wipers can be found on the front windshield of vehicles. Many have an additional wiper on the back window. Wipers should be replaced if they have visible cracks or tearing or no longer clean the window correctly, leaving streaks, making chattering noises, or causing lower visibility. New wipers

can be found at most auto stores as well as in bigger chain stores with an auto section. They are classified by length and new wipers should be the same length as the ones already on your vehicle. It's a good idea to measure them before shopping or take the old ones in to compare with the new. Wipers disconnect at the center of the wiper simply by depressing the release mechanism, pressing the clip, and pulling downwards. New wipers can be reinstalled by clipping them back onto the same area and closing the release mechanism. It's a good idea to test new wipers for functionality before driving again. This can be done by using the windshield fluid control in your car to spray and wipe the windows.

Engine coolant (also known as antifreeze) protects your engine from extreme temperatures. This mixture of chemicals helps cool your engine during times of high heat and prevents the fluids in your car from freezing when the weather is cold. This liquid should also be checked once a month. Like windshield cleaner fluid, engine coolant is found in a reservoir, often near the radiator of your vehicle. This plastic tank will have markings on the side that show a minimum (MIN) and maximum (MAX) level. Coolant should be between those lines, transparent in color (usually with a green, orange, or pink tint), and free of debris. There should be no leaks around the coolant tank or tubing. If needed, coolant can be added by removing the lid to the reservoir, inserting a funnel, and pouring the correct coolant (check your owner's manual) into the tank until it reaches the MAX line. Do not overfill. If a leak is found, coolant is a rusty color, coolant contains debris, or if you go through coolant too quickly, your vehicle should go to a mechanic within the next two weeks. Engine coolant needs to be changed every 30,000 miles on most cars.

Transmission fluid is an important component of your vehicle. The transmission in your car is responsible for changing gears, providing the right amount of power in the most efficient way. Transmission fluid lubricates moving parts, acts as a coolant so those parts don't overheat, and provides the hydraulic pressure needed to shift gears. In a stick shift, gears are changed by the driver while in an automatic gears shift as needed on their own. Unlike other fluids, transmission fluid needs to be checked while the car is running. To check the fluid, turn on your car and allow it to run for a few minutes. This will give the most accurate reading. Like the oil in your vehicle, transmission fluid can be checked by locating the dipstick (usually a bright color), pulling out the dipstick, cleaning it, reinserting

it, and taking a reading of the fluid level. Be sure to stay away from any moving parts as you check. Transmission fluid should be a transparent pink or red. If it contains debris, is off-color, or has a burnt smell, it should be changed. If the level is too low, new fluid can be added using a funnel into the same area that the dipstick comes out of. Consult your owner's manual to find the correct fluid for your vehicle, often bought at an auto repair store. Do not overfill as this can cause foaming and issues with your transmission. Additionally, transmission fluid should be changed every 30,000-60,000 miles (depending on your vehicle).

Power steering fluid helps your vehicle to turn smoothly and makes it easier for you to control your steering wheel with less force. To check your power steering fluid level, locate the reservoir (usually found near the engine) that is labeled POWER STEERING or has an image of a steering wheel on it. In some vehicles, the power steering fluid reservoir may be encased within the engine compartment. In this case, most manufacturers recommend a professional check the fluid level. If it is accessible, however, you can check it yourself during your monthly fluid checks. Depending on the vehicle, it will be a plastic tank with MIN and MAX markings on the outside or a dipstick. Liquid should be between the MIN and MAX lines or within the range labeled on the dipstick when checked. Fluid should be transparent and can be clear, pink, or amber. If it is brown, black, or contains debris, it should be changed by a professional. If needed, power steering fluid can be purchased at most auto repair stores and added to the MAX line. To ensure the correct type is used, consult your owner's manual before purchasing and adding fluid. Do not overfill.

Brake fluid transmits the force applied to the brake pedal to each wheel, allowing the vehicle to stop smoothly and safely. Brake fluid is kept in a plastic reservoir near the back on the engine compartment. If it is encased in the engine compartment, your manufacturer may recommend that a professional check this fluid. If you can locate the reservoir, the tank will be marked with MIN and MAX lines. Fluid levels should be between those lines, and fluid should be clear or tinged with yellow. If fluid contains debris, or is black or brown in color, it should be replaced. If fluid is below MIN line, additional fluid can be purchased and added as needed. Check your owner's manual for the correct type and do not overfill. Brake fluid is corrosive and safety precautions (e.g. eye protection, skin protection) should be taken. Avoid spills, clean the cap before opening, ensure

the cap is secure after refilling, store extra fluid according to directions, and seek out a professional if you are unfamiliar or unsure of the process.

In addition to fluids and wipers, your vehicle contains several filters that need to be regularly checked and maintained. The oil filter, cabin filter, engine air filter, fuel filters, and transmission filters contain contaminants and ensure that your vehicle runs smoothly and efficiently. When checking fluids, it's a good idea to locate and check these filters as often as your owner's manual recommends.

Though you may need to consult with a professional mechanic for many repairs on your vehicle over time, basic fluid checks and maintenance to your vehicle can be easy to learn. These simple measures can ensure your safety, and help your car run better for longer. Most modern vehicles are equipped with lights and notifications that will help you understand when fluids are low or ready for replacement. However, manual checks done at regular intervals can ensure that each aspect of your car is running smoothly and catch needed repairs quickly.

****Lesson Assignment:** With an adult that is experienced in these checks, open the hood of your vehicle, locate and check the fluids and windshield wipers, and become familiar with the owner's manual. If any additional fluids or parts are needed learn how to complete these tasks. If any repairs need to be made, recommend them to the owner of the vehicle and explain why these repairs are important. Be sure to wear eye protection and observe safety protocols.

92. How to Change Oil

As you learned in the previous lesson, oil is an essential component to allow the efficient and safe use of your vehicle. However, with use and over time, oil will become dirty and can contain debris. Your owner's manual and oil type can give you an idea of how often you need to change your oil. As recommendations can range between every 3,000-10,000 miles, it's important to know your manufacturer's recommendations and the type of oil you are using.

Oil changes can be done by the owner or taken to a dealership, shop, or quick-stop business. If done professionally, they typically cost between \$35-125 per oil change (depending on the type of oil and vehicle) and often include fluid and tire checks as part of the process. Professional oil changes also have the advantage of

having a mechanic look over your vehicle and make recommendations for repairs or maintenance due. However, they can be costly and often leave you waiting at the shop for 30-60 minutes while the work is completed.

Alternatively, an owner may opt to complete the oil change on their own. While this is a simple process, it does require safety gear, a basic knowledge of your car, and preparedness. It should be done the first few times with someone experienced in the proper procedures and disposal methods.

To change your own oil you will first need to gather supplies. Check your owner's manual for the correct type and amount of oil and purchase that. Next, you will likely need to replace the oil filter as well. The owner's manual will tell you which type to purchase. You will also need the correct wrenches, an oil drain pan, and, likely, a vehicle jack and jack stands. Shop towels, eye protection, and gloves should also be on hand.

After your supplies are gathered, park your vehicle on a flat, firm, level surface. If you have access to a mechanics pit, park so that your tires are on either side of the pit area. If you cannot access the underside of your vehicle without lifting it, use a jack and jack stands to lift the vehicle. First, engage the emergency break and chock any wheels that will remain on the ground. Next, locate the jack points on your vehicle (consult the owner's manual) and position the jack below a jack point, ensuring the jack is stable and centered. Use the jack to lift the vehicle to the correct height, usually 3-6 inches. Place jack stands at reinforced points (e.g. under the frame) and carefully use the jack to lower the vehicle onto the jack stands. Always double-check the safety and stability of your jack stands and placement before going under the vehicle to complete your work.

Next, locate the oil drain plug (check owner's manual if you are unsure) and place the oil pan below the plug. Remove the plug and allow old oil to drain out into the pan. Locate, remove, and replace the oil filter. When old oil is completely drained, replace the drain plug, ensuring that it is tightly secured. Pull oil pan out from below the vehicle, ensuring you don't spill oil and place it in an area where it will not be disturbed. Add new oil through the oil filler cap, which is the area where your dipstick for checking oil levels is. Regularly use a clean dipstick to check the oil level until it is in the correct range. Replace the cap, close the hood, and place the used oil in a sealed container appropriate for oil storage. This dirty

oil should be taken to an oil recycling center and not disposed of by putting it in the trash, burning it, or pouring it onto the ground. Your local oil recycling centers can be found through a quick online search. If needed, use the jack to lift your vehicle enough to safely remove jack stands, and then lower the vehicle safely with the jack.

****Lesson Assignment:** Discuss with a parent how often they change the oil on your family vehicle. Ask them if they do it themselves or take it to a professional. At the next oil change, provide assistance or travel with your parent to the shop.

93. How to Check Tire Pressure

Your tires are the only part of your vehicle that touch the road. They provide traction, pull the car forward, and, when pressure is applied, stop the vehicle. Tires are an important part of the efficiency and safety of your car, no matter the type.

Each time you get into the car, you should do a walk-around check. Ensure there are no objects, people, or debris around your vehicle or in your immediate driving path. Do a visual check of each tire, checking the tread and fullness and looking for objects that may be stuck into your tires. Tires should be round in shape (without a flat spot at the bottom) and look full. Tread, or the lines and grooves on the outside perimeter of your tire, should have proper depth and should not be smooth or worn unevenly across the tire. There should be no items stuck in your tires.

During monthly fluid checks (or if you notice your tread depth has decreased), the tread should be checked. Though tread gauges can be purchased, the easiest way to ensure proper tread depth is to perform the penny test on each tire. To do this, turn a penny so that Lincoln's head is upside-down. Place the penny between the tread line (in a valley of your tire perimeter) until it touches the bottom of the tread. If you can see the top of his head, your tread is too low and your tire needs to be replaced.

Additionally, tire pressure should be regularly checked (during monthly checks) and checked when an issue has been discovered during a visual check. Many modern vehicles also have tire pressure sensors and will alert you to low pressures. Some even have a screen that shows you the pressure of each tire (see your owner's manual for more information). However, tire pressure can be manually checked with a tire pressure gauge. Though there are different types of gauges (see images below), they are used in the same basic way.



To check the pressure on a tire, first locate the tire pressure recommendation for your vehicle. This can be found by opening your driver's side door and locating the Tire and Loading Information sticker, usually placed on the inside part of the car door frame, near the driver seat bottom. Tire pressure is measured in Pounds per Square Inch (or PSI), a measurement of how much pressure is placed on each square inch of your tire. Additionally, you can locate the maximum PSI recommendation for each tire on the tire itself. Look for a number, followed by PSI on the outside wall of the tire for this number. However, following the manufacturer's sticker guidelines will help your car run best.

Now that you understand what PSI you are looking for in your tires, you can measure where your tires currently are. To do this, your tires must be cold, so it is best to check tire pressure in the morning before you drive for the day and after your car has been sitting for at least three hours. The friction from driving warms up your tires and increases the pressure. Additionally, the outside temperature can affect your tire pressure, decreasing it in colder weather, and increasing it in warmer weather.

First, locate the cap on the valve stem. The valve stem is a small silver or gold-colored valve located on the outside wall of each tire. Caps are usually black and

can be removed by screwing counter-clockwise. Ensure the cap is kept safe as you will need to replace it when you are finished. After removing the cap, place the nozzle of the pressure gage over the valve stem and press down until the hissing stops. If you are using a gauge like the one shown in the first image, ensure you do not block the bottom of the gauge. The number shown is the current PSI of your tire.

If your PSI is at the recommended level, you can replace the valve cap and check each tire until you complete them all. If it is too high, you can use the back of your gauge nozzle to release air, checking the PSI regularly until you reach the ideal pressure. If it is too low, you can add air using an air compressor with a tire nozzle (many gas stations have this available if you don't have your own air compressor). Again, regularly check the PSI using your gauge until the desired PSI is reached. When your current PSI matches the recommended PSI of your manufacturer, replace the valve cap.

****Lesson Assignment:** With an adult, locate the recommended PSI for your vehicle and check each tire, adding or releasing air as needed until your tires are at the correct PSI. Be sure to check the spare tire, too.

94. How to Change/Rotate a Tire

There are several reasons why a tire may need to be changed. As part of your regular maintenance, tires should be rotated every 5,000-8,000 miles. Depending on your vehicle, tire rotation may be moving tires from front to back or simply switching sides. You can find more information about the rotation that is right for your vehicle in your owner's manual. This process ensures even wear of each tire, as differences in suspension, alignment, and front-wheel drive patterns can cause uneven wear. A more consistent wear helps your car run more smoothly and your tires last longer.

A tire may also need to be changed if it is flat. A flat tire can be caused by wear, punctures, or leaking valves. It can also happen suddenly if your tire collides with an object, overheats, or sustains extreme damage to the frame of the wheel. While checking your tire air pressure, if you notice a tire that is very low

on pressure, it's a good idea to monitor it for a leak by checking the pressure again and again throughout the day. If it continues to lose pressure, you have a leak. If you sustain a flat tire while driving, you will hear a flopping sound and the car may feel unbalanced. Additionally, sensors on your car may alert you to pressure changes. If you notice symptoms of a flat tire, pull over as soon as possible. It's best to find a flat, well-lit space that is a safe distance from other traffic. While this is not always possible, you need to ensure you have enough space to safely work on your tire.

Once stopped, you should turn on your hazard lights by pushing the button in your vehicle marked with a red or orange triangle and engage your parking brake. This makes you more visible to other drivers and keeps your car more stable. Next, you will need your jack, lug wrench, spare tire, and any other tools you may need for your specific vehicle's tires. Most cars come with these and you can find their locations using your owner's manual. If your car does not have them, they can be purchased at most auto parts stores.

Whether you are rotating your tire or have a flat, the steps to changing a tire are the same. First, while your vehicle is on the ground, use the lug wrench to loosen the lug nuts on the tire you are removing by turning it counterclockwise. Do not remove them completely yet. Next, using the steps you learned in the oil change lesson, jack up your vehicle using the jack and, if you have them, jack stands. This allows the tires to come off the ground and gives you the space you need to the new one into place. Ensure you follow all the safety guidelines. If you are simply changing one tire, you only need to jack up that tire. If you are rotating tires, you will need to lift both tires you are working on. This allows you to completely remove each of the lug nuts. Be sure to place them in a safe location (e.g. in your hubcap) to prevent loss. Once the lug nuts are removed, simply pull the tire outwards from your vehicle until it is completely removed. Replace it with the spare (or the tire you are rotating) by lining up the tire with the wheel hub, pushing it on until it stops, and replacing the lug nuts. After the lug nuts are hand-tightened, complete the process by tightening them with your lug wrench. Lower the vehicle back onto the ground using the jack and ensuring all safety procedures are met. Finally, tighten the lug nuts in a crisscross pattern after your tire is on the ground. Place all tools and flat tires back into your vehicle. If you are completing a tire rotation, you will simply put your tools away after all tires are completed.

If you have replaced your tire with a spare, you should travel to the nearest tire store or shop. A spare is not meant to be used as a regular tire and is often smaller and less-stable. It is only to be used to get you to an area where your regular tire can be repaired or replaced.

****Lesson Assignment:** With a parent, learn about where the tools and spare tire are in your vehicle. Discuss the process of changing a tire, what resources you have available to you in the event of a flat (e.g. a towing service, AAA, free flat repair, etc.) and what tire shop your family uses most often. If you can, ask your parent to help you practice changing a tire.

95. Keeping Your Car Clean and Prepared

Like your home, your vehicle also requires regular cleaning to be at its best. Weather like rain, wind, or snow can leave the outside of your car dirty while trash, sticky spills, and dust can get inside. In places that salt the roads during the winter, vehicles should be cleaned regularly to remove the corrosive salt that sticks to the underside of your car. A car that is driven regularly should be cleaned once a week while a car that is driven more rarely can be cleaned every two to four weeks.

Washing the exterior of your vehicle can help protect the paint and other exposed parts. It also increases visibility through windows, decreases glare, and increases the value if done regularly. There are a variety of options for keeping the outside body, windows, tires, and details of your vehicle clean. They vary in cost and effectiveness.

The easiest, but most expensive, way to clean the exterior of your car is to visit a touchless car wash. Many car washes offer different plans and single washes. After paying, you will be directed to drive up to the car wash area, where the vehicle is taken through an automated system of rinses, scrubbers, and dryers. This method of cleaning ensures that the vehicle is cleaned using the correct chemicals and soaps, in a way that reduces scratches and human error. Alternatively, a self-serve car wash can be used. At this type of car wash, the owner of the vehicle is responsible for the process and the car wash simply provides the tools. They usually charge by the amount of time you use the stall and tools and can be less expensive than touchless washes. They also provide the

soaps and chemicals, ensuring that they are for use on automobiles. However, they leave the process of actually cleaning to the person paying.

Self-serve washes often have a pressure washer with options for washes, rinses, and polishes as well as tire treatments. They usually provide a brush that foams with soaps to scrub the car, a place to dry the exterior, and an area with vacuums for the interior. When using a self-serve car wash, it's important to understand the process and correct procedures for cleaning your car.

Finally, your vehicle can be cleaned at home. Before starting, ensure you have the proper cleaning supplies and park your vehicle in a shaded spot that has access to a water hose. To clean the exterior of your car correctly, you will need car wash soap, tire and rubber cleaner, wheel cleaner, window cleaner, tire shine, wax and/or polish, tire shine, an exterior and wheel brush, microfiber cloths, towels, and microfiber sponges/applicators. Be sure to use items approved for use on vehicles and follow the manufacturer's instructions when washing your car. First, pre-rinse your car using clean water from the hose or pressure washer. Use this step to loosen dirt and debris from the body, wheels, and undercarriage. Next, use a bucket filled with water, the tire and wheel cleaners, and the wheel brush to wash the tire and wheels. Empty the bucket and rinse it out, filling it with clean water. Fill a second bucket with water and car body soap. Dip the microfiber sponge into the soapy water and clean your car in sections, rinsing the sponge in the bucket with clean water after each section. This removes debris and prevents scratches. Next, use the hose/pressure washer to rinse the car, rinsing from the top down. Once each section of your car is clean and rinsed, use the towels to dry the vehicle, again working from the top to the bottom. Drying prevents water spots. Once dry, apply the wax/polish according to the manufacturer's directions. Use window cleaner to clean the interior and exterior windows and mirrors, removing any streaks and debris.

The inside of your car will need a regular cleaning, too. To detail your vehicle, first remove items and trash. Wash seat covers and remove floor mats, placing them in an area where they can be vacuumed to pressure washed. Next, vacuum your car's carpeting and upholstery using the correct vacuum attachments. Work from the top down and move seats as needed to get each spot. Next, dust the hard surfaces in the interior of your vehicle using approved cleaning supplies and a microfiber cloth. Use all cleaning supplies according to directions. Then, clean your upholstery using cleaners appropriate to your vehicle (e.g. fabric seats require fabric cleaner, leather requires leather conditioner). Use a soft brush or

q-tip to clean small spaces (e.g. between air vents). If desired, add an air freshener. Finally, when everything is dry, replace items that belong in your vehicle to their proper spots. While detailing can easily be done at home or a car wash (many provide space and vacuums), there are businesses that offer this service, as well. These companies can save time, but cost more than do-it-yourself detailing.

In addition to cleaning your vehicle, you should regularly check emergency items in your vehicle and replace them as needed. Cleanings are a good time to double-check your emergency items. Ensure you have a spare tire, jack, jack stands, and wheel wrench that stays in your car. Next, make sure your vehicle has a set of jumper cables or a portable jump-starter. If using a portable jump-starter, ensure that it is charged. Your vehicle should also contain: a working flashlight and extra batteries, a first aid kit, water bottles and non-perishable food, blankets, spare fuses that match your vehicle, a small gas can, reflective triangles and/or flares, a basic tool kit for repairs, a tire pressure gauge, a cell phone charger, a portable tire inflator that runs on batteries or can plug into your car, and a car 72-hour kit (see lesson 25). All items should be clean, in working order, and not expired. They can be stored in the back of the vehicle, in the trunk, or under seats to ensure they are secure.

****Lesson Assignment:** With help from an adult, gather all the proper supplies and clean the interior and exterior of your vehicle. Discuss the pros and cons of each type of car wash (touchless, self-serve, and at-home). Then, check the emergency items in your vehicle against the list provided and replace or purchase new as needed.

96. How to Pump Gas

One of the biggest and most frequent maintenance tasks for any vehicle is adding gas to the gas tank. While timing will vary depending on your mileage per gallon and driving, you should aim to fill the tank whenever it is half-full or less. This ensures you are prepared for smaller trips and, if needed, an evacuation. It's also a good idea to keep a small, filled gas can (which needs to be rotated every 3-6 months) at home. Check your gas tank gauge each time you get into your car. If the low-fuel light comes on, head to the next gas station and get more gas as soon as possible.

The first thing to know when adding gas to your vehicle is which type of gas you should use. Check your owner's manual for recommendations before adding gasoline to your car as the wrong gas can harm your engine. Most vehicles today use regular unleaded gas, market as REGULAR at the pump. While gas stations also offer PLUS and PREMIUM varieties, which have higher octane ratings. Octane ratings refer to the stability of the gasoline and the way it way it combusts in your engine and are shown by the numbers on the gas pump selections. You should never use an octane rating below the required rating in your owner's manual as it could cause damage to your engine. However, studies have shown that, unless you have a high-performance engine (in which case you should use premium gas), using a higher octane level than needed doesn't improve performance much in regular engines and most drivers can avoid the added cost by using regular gasoline. Some vehicles do require specialty fuels such as diesel, flex-fuel, or ethanol-free gas and regular gasoline will damage the engine. It's also important to ensure that nothing else goes into your gas tank. Be wary of debris or adding any other materials as they will cause engine damage.

The first step to adding gas is locating a gas station and pulling up to the pump. Get as close to the pump as possible without hitting any of the fixtures with your vehicle. Leave enough room for you to move between the pump and your car, usually a few feet, but ensure that the hose will reach your tank. Be aware of what side your tank is on and ensure that side ends up closest to the pump. Most cars have a small arrow near the gas gauge on the dashboard to help you remember. If needed, unlock the gas tank door from the inside with the lever or button labeled GAS or that shows an image of a gas pump.

Gasoline and gas fumes are highly flammable. Don't smoke, use a lighter or matches, or use a cell phone near a gas station. It's a good idea to leave your phone in the car as the static from it can cause a fire. When exiting your vehicle, touch a metal part of the car before touching the pump to discharge any static. Locate the emergency shut-off button for the gas station (usually a red button with signs). If a fire does occur, leave the pump in your vehicle, alert others around you, and hit the emergency shut-off button before calling emergency services. If there is a spill, report it immediately to the attendant and follow their instructions.

Next, pay for your gasoline. If you are using a card, many stations allow you to pay at the pump by swiping, inserting, or tapping your card. The pump will keep track of how much gas you put into your car and show the price on a screen. If using cash, remember the pump number and go inside the station to pay the attendant. They will need to know how much money you are using and what gas pump you are on. The pump will automatically shut off when you reach your spending limit. If your tank fills before you reach the amount given, return to the cashier to get change. You can also pay with a card inside.

Next, you will need to open your gas tank. Simply open the door to your tank (usually located above the rear wheel of your car) and remove the cap by unscrewing it. Place the cap somewhere safe or allow it to hang from the connected wire. Some models only have a door and no cap, giving you one less step to worry about.

After opening the gas tank, you will remove the nozzle from the pump. Ensure you grab the correct nozzle as many stations sell different types of gas. A green nozzle usually indicates diesel. Read the signs and tags on the pump to ensure you have the right one. If unsure, ask an attendant for help, as using the wrong gas can damage your engine. After removing the nozzle from the pump, insert it into the gas tank, pushing inwards until it fits snugly. This snug fit ensures you don't have to hold the nozzle as the gas pumps and helps reduce fumes and spills.

Next, select your gas type by pushing down on the button labeled for the correct octane for your vehicle. You may also need to press a start button to activate the gas and prime the pump (not on all pumps). The screen should reset to 00000 for both price and gallons pumped.

It's now safe to begin pumping gas into your tank. Remain with your vehicle the entire time it is pumping. Pull the trigger on the nozzle upwards to begin and hold it up or use the trigger lock, located below the trigger, to allow the flow to continue without holding the trigger the entire time. Gas pumps are equipped with an automatic shut-off that will stop the flow of gasoline when the tank is full or you reach your spending limit, whichever happens first. You will hear a click that indicates that the pump has stopped. Avoid adding more gasoline or topping-off as this can be unsafe. If used, release the trigger lock by pulling the trigger slightly upwards or manually pushing the lock downwards. When you are

sure the pump is off, remove the nozzle from the gas tank and replace it on the pump, being careful to avoid getting small drips on your shoes, clothing, or vehicle. This will end the use of the pump, charge your card for the final amount, and allow you to print a receipt. Close the gas cap, ensuring that it clicks a few times, and lock the door to the tank. If needed, return to the inside attendant for change and/or a receipt. Double-check each step before you enter your vehicle, start the engine, and leave.

In some situations, you may only have the funds or need for a partial tank. To turn off the pump at this limit, simply release the trigger or pull up to release the trigger lock. This will stop the flow of gasoline and allow you to return the nozzle to the pump. Never remove the nozzle while the trigger is engaged. This will cause gasoline to spill, creating a fire hazard and strong odor.

Finally, be aware of local laws about pumping gasoline. As it is a dangerous substance, many states have age restrictions. New Jersey has full-service pumps as self-serve is illegal. This means an attendant will pump gas for you while you remain in your vehicle.

****Lesson Assignment:** Check your owner's manual to learn what type of gas your vehicle uses. The next time you need to refill the gas tank, ask an adult to show you how to use the gas station pump and, if allowed, pump gas yourself.

97. Warning Lights and What They Mean

The dashboard on your vehicle has several warning lights attached to sensors throughout the vehicle. While the exact lights on will vary from car to car, it's important to become familiar with the different lights, what they may mean, and what to do if a light comes on. Below are some basic and universal lights, but be sure to check your owner's manual for warnings specific to your vehicle.



Check Engine

The check engine light signals a problem with the engine of your vehicle. It may show an image of an engine, the words CHECK ENGINE, or both. It may appear as a solid or flashing light and may be red, orange, or yellow. On most vehicles, if the light is solid, you should drive home or to a repair shop as soon as possible. However, if it is flashing, the issue is serious and you should pull over in a safe area without driving much further. You can then call for help or a tow truck without risking further damage to your engine. A check engine light can indicate a variety of problems from simple to dangerous and should always be taken seriously. At the repair shop (or at some auto supply stores), a machine can be used to run the code. The code that shows the location of the problem and can help with assessment and repairs.



Anti-Lock Breaking System

The Anti-Lock Breaking System in your vehicle helps ensure that the breaks don't lock up when breaking, especially when breaking is done quickly or with a lot of pressure. This system is in most modern vehicles and can trip an ABS light (red, yellow, or orange) on your dashboard when it isn't working properly. This light could indicate anything from a blown fuse to a needed repair in the braking system. While you can drive with the ABS light on, it's best to have the braking system checked as soon as you can to ensure proper braking. The ABS system will not function with the light on, however, depending on the issue, your breaks may continue to function without the anti-lock protection.



Airbag

The airbag warning light indicates a problem with the airbags in your vehicle. Airbags are meant to inflate during a collision and protect the driver and passengers as their bodies come into contact with the car as a result. Also known as a supplemental restraint system, the light can show as an image of a person with an airbag, the letters SRS, or CHECK AIRBAG SYSTEM and may be red, yellow, or orange. The light may also come on if someone is in the front seat who is underweight for the airbag system. In this case, the airbag will not deploy (as if no one was in the seat) in the event of

a collision because the person sitting there would be injured more by the airbag than without it. For this reason, children should always sit in the backseat. While your vehicle can operate with the airbag light on, you will not be protected in the event of a crash. Therefore, it's best to have the system checked at a repair shop as soon as you can.



Oil Warning Light

The oil warning light may be red, orange, or yellow and can appear as an image of an oil can, the words OIL, or both. It may also indicate low oil or low or high oil pressures. The oil level light often includes a wave pattern below the oil can or the letters MIN. The oil light is yellow in most vehicles in this situation. If this is the case, add oil to your vehicle or take it to a repair shop immediately as operating without enough oil can damage your vehicle. However, if the oil pressure light comes on (often shown as just the oil can or the oil can accompanied by a written description of high or low pressure, and red in most vehicles), the engine can be ruined very quickly. Pull over as soon as it is safe and turn off the car. Call for help or a tow. Never open the oil reservoir on a hot car with high oil pressure. Doing so can cause severe burns as the hot oil and steam will shoot out when it is opened.



Battery Warning Light

The battery warning light indicates an issue with the battery of your vehicle, usually a low charge, alternator issue, slipping belts, or corrosion all of which can cause a lower than necessary charge. Without a proper charge, your vehicle will have trouble starting and functioning properly. For this reason, it's best to assess the vehicle while it is still running. If possible, drive to the nearest auto store or repair shop. Keep in mind, your battery may fail at any point so ensure you can quickly pull off the road if your vehicle stops functioning. If your battery has stopped functioning while the car is off and will not start, you may need to replace the battery or jump start the car to get it to a repair shop (see lessons 98-99).



Engine Coolant Temperature Light

This light may be yellow, orange, or red and indicates an issue with your coolant system. Coolant ensures your engine doesn't overheat and protects parts of your vehicle from damage caused by overheating. If this light comes on, pull over as soon as it is safe to do so. Continuing to drive can cause damage to your engine. Overheated coolant can be caused by low coolant levels, a leak in the system, low oil, a broken fan, or radiator issues. Allow your engine to completely cool and, if needed add more coolant to the reservoir. Once cooled, you may be able to drive it to the nearest shop, always stopping to let it cool again if the light comes back on. Alternatively, it's best to have it towed and looked at by a professional.



Tire Pressure Warning Light

This light, which can show in red, yellow, or orange indicates low tire pressure and may give you a heads-up if you have a flat tire. It may be present as an image of a tire with an exclamation mark in the center or as the words CHECK TIRE PRESSURE. If this light comes on, it's best to check the tires as soon as it is safe. Modern cars are equipped with a tire pressure sensor. This allows you to check the pressure while driving on a dashboard screen. If the pressure is very low, you likely have a flat. If it is slightly lower than normal, you probably just need to add air. Alternatively, you may have a slow leak. If the light comes on before the drive, you can check your tires before leaving, while they are still cold. If you are driving, pull over to a safe location and check for a flat. If needed, change the tire (see lesson 94) and travel to a repair or tire shop. If it is simply low pressure, add air next time your tires are cool and monitor in case of a slow leak.



Low Fuel Light

A low fuel light, either red, yellow, or orange and in the shape of a gas pump, indicates that you are low on fuel and should refill at the nearest gas station.



Parking Break Light

A parking break light (red, yellow, or orange) can appear as the letter P surrounded by a circle or the words PARKING BREAK or BREAK. This light indicates that your parking break is engaged and should be released before driving.



Break Warning Light

The break warning light is usually red, yellow, or orange and shown as an exclamation point surrounded by a circle. This light indicates an issue with your breaking system and should be checked by a professional immediately, as it could warn of a future break failure.

When engaging two-wheel drive, four-wheel drive, or all-wheel drive, a light may come on indicating 2WD, 4WD, or AWD, respectively. This light will turn off when these certain options are not engaged and do not indicate an issue with your vehicle.

When a door, hood, or trunk is open, an image of the open area may be indicated on your dashboard lights. These lights look different for each vehicle and will turn off as the doors are properly closed. Consult your owner's manual.



Seatbelt Indicator Light

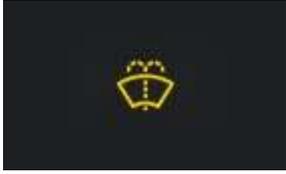
A seatbelt indicator light can be yellow, orange, or red and shows as a person wearing a seat belt. This indicates that the weight sensor on a seat has been activated but the seat belt is not secured. It may or may not indicate which seat it is referring to. Once everyone buckles their seat belt, the light should turn off.



Headlight Indicator Light

This light, usually in the shape of a headlight with lines in front of it indicating light, can show that your headlights are on, your high beams are on (usually blue), your automatic headlight sensor is engaged (usually green), or your fog lights are on (usually indicated by a line running perpendicular to the beam lights shown).

Consult your owner's manual for specifics of your vehicle and locate the light lever or knob that allows you to change between modes.



Washer Fluid Light

This light indicates low windshield washer fluid levels and presents as a picture of a windshield being sprayed. It may be red, yellow, or orange. Your car can operate with this light on, though you may not have enough fluid to clean your windshield. Adding additional fluid will turn this light off.

While there are several other warning lights and indicators, these are the most commonly seen. Become familiar with your warning lights, what they mean, and what you should do should they come on. Many repair shops and auto stores offer code-reading services which can pin-point the problem and take steps to repair it. Most modern vehicles have a starting process that checks systems each time the vehicle is turned on. This process will sometimes turn lights on temporarily as the related system is checked. This should only happen when the vehicle is started and all lights should turn off shortly thereafter. If a light stays on or turns on while driving, it indicates a problem.

****Lesson Assignment:** Take time today to become familiar with the warning lights in your own vehicle. Discuss with an adult local auto stores, repair shops, and tire shops that they trust and get to know where they are. Talk about what to do if a warning light comes on. Finally, make a plan to repair any issues your vehicle is currently experiencing and how to save for future repairs.

98. Jump Starting a Vehicle

The battery of a vehicle provides power to electronics and helps the vehicle start. While the car runs, a battery is re-charged. However, leaving the lights on, corrosion, loose connections, extreme temperatures, and alternator issues can cause the battery to lose charge and not have the power it needs to start the car. When this happens, it's important to check the battery power, watch for warning lights on the dashboard, and understand how to jump start your vehicle to help you get to a repair shop or auto store. Jump starting borrows power from another vehicle's battery to get yours running again. It requires a basic

knowledge of electricity, battery components, and safety precautions when working with electricity. If you are unsure, it's best to ask for help.

To jump start a vehicle, you first need to park the one with a good battery near the one with a bad battery. Make sure you are close enough for the jumper cables to reach both batteries, turn off both vehicles, engage both parking breaks, and open the hoods to locate both batteries. If needed, remove the plastic covers on battery terminals. Check the dead battery for leaks and damage and, if possible, wear safety equipment (e.g. eye protection, gloves). If the battery has a leak or is damaged, do not jump start the vehicle.

Next, connect the jumper cables in order, making sure that the metal clamps do not touch each other at any point and touching only the parts of the clamps covered with plastic (not the metal). First, attach the clamp on the red jumper cable to the positive (+) terminal on the dead battery. An easy way to remember this is "red on dead". The clamp should be placed on the metal part of the battery terminal. Then, attached the other red clamp to the positive (+) terminal of the good battery.

Next, attach the black jumper cable clamp to the negative (-) terminal of the good battery. Finally, to prevent sparks near the battery, connect the second black jumper cable clamp to an unpainted metal surface of the car with the dead battery, away from the battery (e.g. engine block).

Once the jumper cables are connected properly, turn on the vehicle with the working battery and let it run for a few minutes. This will allow the dead battery to charge enough to start. After a few minutes, attempt to start the vehicle with a dead battery. If it does not start, allow the working car to run a few more minutes and try again.

When the vehicle with the dead battery starts, disconnect the jumper cables in reverse order, observing all safety precautions. First, remove the black jumper cable on the metal surface of the vehicle with the dead battery. Next, remove the black jumper cable on the negative (-) terminal of the good battery. Then, remove the red clamp from the good battery. Finally, remove the red clamp from the bad battery.

Allow the vehicle with the dead battery to run for at least 20 minutes. This will give the alternator time to charge the dead battery. It's best to have your battery's charge and condition checked by a professional as soon as possible. While your battery may re-charge after certain incidents (e.g. leaving lights on overnight), it may not hold a charge if it is damaged or aged.

If you are out and about or unable to contract a friend or relative for help when a battery dies, ask someone in the parking lot for help. Most people have basic knowledge of how to jump start a car and are willing to use their vehicle to help out. Ensure proper steps are followed, as connecting the cables incorrectly or starting vehicles at the wrong time can damage both cars.

****Lesson Assignment:** With an adult, open the hood of your vehicle and locate the battery and battery terminals. Point out which is positive and which is negative. Next, find a piece of unpainted metal where you are able to connect the black jumper cable in the event that you need to jump start your car. Finally, locate the jumper cables kept in your car and walk through the steps of connecting and disconnecting cables without actually doing so. Discuss proper safety precautions.

99. Changing a Battery

While jump starting may help fix a lost charge, car batteries sometimes need to simply be changed out. Like batteries in a flashlight, over time they simply do not work as well as they used to. On average, batteries need to be changed every three to five years. However, like flashlight batteries, batteries in vehicles contain acids and other harmful chemicals and need to be handled, connected, and disposed of properly. While you can change the battery yourself, many repair shops also provide this service.

The first step of changing a battery is purchasing the new one. To do this, you need to understand the size, shape, and type of battery your vehicle uses. The easiest way to do this is to remove the old battery and take it to the auto supply shop (see instructions below). Stores will often allow you to leave the old battery with them for proper disposal for a small fee. However, this method requires you

to have access to another working vehicle that you can drive to the store while the battery is out of the one you are working on. Alternatively, you can take a photo of the label on the battery or check the owner's manual for battery information.

To remove the old battery you will need a wrench, ratchet set, gloves, safety goggles, a wire brush, and terminal grease. Park your vehicle on a flat, dry surface and engage the parking break. Allow the engine to cool before beginning your work and avoid activities that could produce sparks or an ignition source for fire (e.g. smoking, etc.). After locating the battery and removing the terminal covers, use a ratchet to remove the clamp from the negative (-) terminal (black wire) and move the cable away from the battery. Then, repeat the process with the positive (+) terminal, (red wire). Next, remove the restraint (many vehicles have a clamp that holds the battery in place) by loosening and removing the bolts securing it. Carefully lift the battery out of the vehicle, keeping it upright and level. Set it aside or take it to the store to purchase the new battery. In some vehicles, other parts of the car may cover the battery and need to be removed before it can be taken out. In this case, consult with someone who has worked on cars before or take it to a repair shop to change the battery.

After removing the old battery, clean the terminals with a wire brush, removing debris and corrosion. This will ensure a better connection for your new battery. Apply terminal grease to each terminal, which will help prevent corrosion in the future. Place the new battery into the restraint clamp, ensuring that it fits well and is flat and level. Secure the clamp by replacing and tightening the bolts that secure it. Connect the red cable to the positive terminal and replace and tighten the clamp. Next, connect the black cable to the negative terminal and replace and tighten the clamp. Once connected, double check the connections and put away any tools. Close the hood and test-start the vehicle. If it does not start, turn off the vehicle and check to ensure the correct cables are on the correct terminals and everything is tightly secured. Close the hood and try again. If your vehicle still does not start, the problem may be another aspect of the electrical system and may need to go to a mechanic to diagnose it. After replacing the battery, ensure that your old battery is properly disposed of by turning it into a local shop or store that offers core disposal.

****Lesson Assignment:** Locate the battery in your vehicle and take a picture of the label. Check the age of your battery. Visit an auto supply store and find a replacement battery. If needed, purchase the new battery and ask an adult to help you change it out. If your current battery is good, simply note the details of the new battery in the store for future reference.

100. Gasoline Stabilizer and Storage

Fuel is one of the most-often replaced aspects of a vehicle and the easiest to run out of. It is also something that all owners of vehicles should have on-hand in an emergency. When evacuations, natural disasters, or economic turmoil hit, gasoline is one of the first things that is in demand. Understanding how to safely acquire, store, and use fuel is an important skill.

Most people store only a small amount of gasoline at home. Due to safety concerns (gas is highly flammable) and a short storage life, keeping enough gas to fill your tank is a reasonable expectation. You can find out how large your gas tank is by consulting your owner's manual.

The first step of proper gasoline storage is obtaining the correct container to store it in. Gas containers come in metal and plastic and are clearly marked. Most gas cans are red in color. However, different types of fuel may be kept in containers that are different colored (e.g. diesel in yellow). Metal cans are subject to rust and plastic ones are the most commonly used today. These gas cans come in various sizes and have nozzles specifically designed to pour fuel into a gas tank.

Once the correct container is found, it's important to designate a storage area. Gasoline should be stored away from direct sunlight and ignition sources (e.g. water heat pilot lights, electrical sources). Never store gasoline in your home. Instead choose a detached garage or storage shed. Keep stored gasoline away from children and pets. Ensure that it is on a level surface to avoid leaks and comply with all local laws.

To fill the gas tank, travel to a gas station, place the gas can on the ground in front of the pump, remove the gas can lid, and place the pump nozzle into the can. Pump gas as you normally would, avoiding spills and drips. Leave about 5% of the container empty to account for expansion and replace the lid, closing it tightly.

Transport your full gas cans back home by placing them in the back or trunk of your vehicle on a level surface.

To use the gasoline in storage, simply open your gas tank as you would at a gas station. Place the nozzle of the gas can in the gas tank and pour gas in until the desired amount is in the tank. Some gas cans have levers or buttons that you need to push for the gasoline to come out. Remember, gas cans do not have an auto-shut off so you need to be careful to avoid spills and leaks.

Gasoline can be stored for 6 months to a year, but should be rotated often. Gasoline can evaporate over time and break down, which can cause problems with your engine if used. In addition to gasoline in storage, if a vehicle is not driven often enough to use rotate the fuel at regular intervals, gasoline stabilizer can be used to extend the gas shelf-life. This chemical is added to the gas tank or can to prevent oxidation and breakdown of the gasoline. It helps extend storage life and protect the engine. Stabilizer can be purchased at most auto repair shops. However, stabilizer comes in many varieties. Before purchasing and using stabilizer, check the intended use, suggested shelf-life, and follow all directions from the manufacturer.

****With an adult discuss the gasoline storage you currently have or create a plan to store at least one small gas can worth of fuel. Together, refill an empty gas can safely, transport it home, and place it in your designated storage area.**

Chapter Fifteen: Home Maintenance

101. Common Tools: Types and Uses

Having the right tool for the job not only makes the task easier, it makes you safer and more efficient. It is good to have at least a basic toolkit in your home, whether you rent or own. Quick DIY repairs and regular maintenance will save money, keep your home comfortable, and keep you safe. Be sure to purchase high-quality tools that will, with proper care, last a long time.

A basic tool kit should include tools that are regularly used to set up your home, do basic maintenance, and make basic repairs. This type of tool kit can be added upon as you learn more skills. It will not include a specialized tool for any and every repair, but will help you with day-to-day tasks. It should include the following items:



A claw hammer- This hammer will help hang photos, remove extra nails, build basic projects, and with various other tasks. Having various types and sizes of nails (e.g. finishing nails, common nails, framing nails, trim nails) will ensure that your hammer is put to use and your jobs are completed correctly and safely.



A tape measure- This device will help you measure with more ease and accuracy than a basic ruler, especially for larger projects. Standard tape measures come in 15-50 ft. lengths and the length you choose will depend on your personal needs and intended uses. A 25 ft. one is a good balance.



A heavy-duty utility knife and extra blades- This knife will be used for several projects from cutting open plastic packaging to cutting stick-on or vinyl tiles. Having extra blades on hand allows you to always have a sharper, and therefore safer, blade.



A level (either bubble or laser)- A level will help you ensure your projects are flat. This is helpful when hanging art, building shelves, framing, or even putting together furniture. A bubble level contains a small tube filled with liquid. It is placed on a surface to determine whether or not it is flat. The goal is to move the item to be leveled until bubble is between the two marked lines which signals that the surface is level. This is a common, basic tool and is inexpensive but difficult to use if you are planning a big project. A laser level can be placed on a flat surface and will emit a red or green laser line that gives you a template for level work. Laser levels are more expensive and generally used for larger projects, such as tiling, flooring, and framing. Use will be different for each type so it is important to follow the instruction manual.



A stud finder- This tool measures densities along a surface and can tell you where the stud is without cutting the wall open. Studs are the vertical pieces of the wall's framing. They are made of wood and much sturdier than the sheetrock that most walls are made of. It is important to find the studs when hanging art, installing furniture, or adding built-in features, as connecting these things to the studs will safely connect them to the wall and decrease the chances that they will fall. Though usage will vary based on brand, your stud finder can be held flat against the wall and should light up and/or make a sound when a stud is detected. You can then mark the area where your studs are and hang or attach items there.



Pliers- You will need both long nose pliers and slip joint pliers in your basic tool kit. Long or needle-nosed pliers are delicate and perfect for small spaces. They are useful for holding small parts (e.g. nuts, nails, etc.), reaching into small areas, and bending wires. They often contain a wire cutter, though this is a great tool to purchase separately as well. They should not be used for bigger projects. Slip joint pliers are common for basic repairs around the house and can be used to grip objects of varying thicknesses.

They are tougher than needle-nosed pliers and can be used to grip, pull, and move objects that are difficult to grasp with your hands.



Screwdrivers- Screwdrivers come in two basic types: Phillips and flathead. Phillips screwdrivers have a head that is shaped like an “x” while flathead screwdrivers have a head that is shaped like an “I”. Screws come in varying shapes and sizes and will be either flathead or Phillips (with a few exceptions). Both types of screwdrivers come in different sizes, as well. It is a good idea to have at least a few sizes in each type. Smaller screwdrivers can be used to repair toys, change batteries, and repair glasses while larger ones may be used to change switch covers, repair doorknobs, and put together furniture. Alternatively, you can purchase a screwdriver that allows for changing of bits, or heads, and a set of varying sizes and types of bits. Additionally, it’s a good idea to have a few screws on hand in varying types (e.g. drywall, wood, framing, particle board)



A SAE and a metric Allen wrench set- Allen wrenches, or hex keys, are great for putting together furniture, bike repairs, and tightening certain types of screws. These wrenches are L-shaped metal pieces with a hex shape on the end. The hex fits into the screw and works much like a screwdriver. Alternatively, hex keys may come in a connected set as a series of straight metal pieces, often connected to a central plastic or metal piece. Hex sets come in SAE (standard) sets, which are measured by inches, and metric sets, which are measured in centimeters. They are specific to the job and, therefore, a set of both is recommended.



Ratchet and socket set- Sockets are used for tightening and loosening of bolts and nuts. Unlike screws, bolts have no cuts at the top of the head, which is hexagon shaped. Nuts thread onto the bolts, which helps secure items together. Bolts are used for heavier-duty projects, such as construction and concrete work, but often hold together appliances. A ratchet is the tool the socket connects to for use. Like hex keys, sockets come in SAE and metric and vary in size based on the job. It is best to have a set on hand that includes both SAE and metric in different sizes as well as a few different-sized ratchets. Alternatively, static wrenches can be used, though it is recommended to have both types.



A crescent wrench- The crescent wrench has the same uses as static wrenches or sockets, but allows for the size to be adjusted, making it a good, versatile to have on hand.



A basic drill- A drill is an electric (either plug-in or battery-operated) hand tool with many uses. A drill bit set, with different sized bits, allows you to use the drill to make holes in many different materials. This is useful for certain crafts, for building with screws, for electrical work, and for basic installation of household items (e.g. doorbells). With a screwdriver bit set, a drill turns into an electric screwdriver, allowing you to drive screws in, loosen, or tighten them quickly. A good-quality drill is an investment and will be used for most projects.



A basic saw- Saws come in many different types and sizes, all for different types of jobs. A basic tool kit should include some type of saw, whether it's an electric saw or a

handsaw. Saws are used for cutting wood, metal, plastic, and other materials to size. Though a basic handsaw is a good place to start, larger projects will require specialized saws. When choosing a saw, consider what it will mainly be used for and its ability to complete that task.



A putty knife- A basic putty knife comes in handy for filling small holes in the drywall and making repairs to larger holes. It is used to spread and flatten joint compound, a dough-like substance that fills and covers holes in drywall. The putty knife allows you to mix, spread, and wipe off excess compound when you move away from your wall, knock a hole in the wall, or need to repair a larger patch after working inside the wall. The size and shape of your putty knife will depend upon the size and shape of the patch.



Paint brushes and rollers- Painting a home is one of the least expensive ways to update and personalize it. Over time, paint will need to be redone or touched-up. It's a good idea to keep a few paint brushes, rollers, paint pans, and rolls of painter's tape on hand. The type of brushes and rollers you will need depends upon the job to be done, but you should have a flat and an angled brush, as well as a few multipurpose rollers on hand. Before painting, research the preparation process, the type of paint you will need, and the effect certain colors and finishes will have on your project.



An electric sander and sanding block- Sanding is the process of rubbing a rough piece of paper against a surface to remove any imperfections in the surface. Depending on the job, sanding may be done to smooth a surface or roughen it so a finish will stick better. Whatever the project, it's a good idea to have a sanding block, which is used to sand by hand and a small electric sander. The sanding block is great for smaller projects (e.g. a drywall patch) while the electric sander will save you

energy and time with larger projects. Be sure to research the grit necessary for each project before starting.



Multimeter – A multimeter is a tool used to test the electric current through outlets, wires, and appliances. It contains a square reader and display and two probes, usually black and red. These probes are held against the wires or power source to test whether or not a current is flowing through the area. A multimeter can also tell you how much electricity is being pulled in a certain area and whether the current is continuous or not. Like any tool, it should be used carefully and only after reading the instructions in full. Electricity poses many risks and, if in doubt, call a professional.



Wire stripper and Wire cutter- As mention before, most needle-nosed pliers include a wire stripper.

However, it can be handy to have a separate wire stripper and wire cutter if you plan on working with electrical projects. Wire nuts, in various sizes, are also good to have on hand. Installing new lighting or fans, changing outlets and switches, and even wiring a doorbell will require these tools. Be sure to turn the power off before working on electrical projects and read all instructions.



Drywall anchors- Wall anchors are small plastic or metal tubes that are open on one side. They come in various sizes, types, and colors, but are all used to anchor items to a wall or ceiling. When a stud is not available, an anchor can help stabilize furniture, artwork, and towel racks, and other household basics. To install a wall anchor, you drill a pilot hole the correct size in the area you want your anchor to go. Then, use your hand to push the anchor, pointy end first, into the wall. You may need to gently tap it with a hammer until the open end of the anchor is flush with the surface of the wall. Then, you install your item as you normally would, placing the screw into

the center of the anchor. The size and type of anchor used will depend upon the location, weight, and use of the item installed.



Plumbers tape and a Pipe Wrench- These tools are great for basic plumbing repairs and quick replacements of faucets and handles for sinks, tubs, and showers.

Plumbers tape helps the grip and seal

between pieces and a pipe wrench is specially designed to loosen and tighten leaky or clogged pipes. As always, research before starting a project and ensure the water is turned off before beginning.



Gas shut-off wrench- This tool is specifically designed to shut off the gas to your home in an emergency. It can be used after an earthquake, or anytime there is a risk of a leak or fire to shut down the main gas valve.



Hooks- Hooks are useful in the home and can be used to hang towels, artwork, photos, keys, baskets, curtains, and more. Hooks can be stick-on, magnetic, used with a peg board, or screwed into the wall. It is a good idea to have a few of each type of hook in your tool box to use as the need arises.



Caulk and Caulk Gun- Caulk is used to seal around the edges of sinks, showers, and bathtubs, protecting from water damage. It can also seal around windows and baseboards to protect from insects, drafts, and dust. Caulk comes in a long, thin tube and is applied through the use of a caulk gun, which holds the tube and provides a handle to gently push the caulk out of the tube. It should be applied slowly and smoothed out to ensure all gaps are covered and the surface is easy to clean. Some types can be painted over. Different projects will require different types of caulk but it is good to have a tube of latex, silicone, and adhesive in your chosen colors in case the need arises.



Gloves- Work gloves are an essential piece of your toolkit. Not only do they increase your grip, they protect your hands as you work. A pair of general work gloves is a great starting point and can be used for yard work and moving as well as household maintained and repairs. Be sure to get a good-quality pair that fits correctly.



Storage- Your basic tool kit should be easy to move around and well-organized. This may mean that you purchase a toolbox, a small tool cart, or a basic plastic box. Your tool storage should be sturdy and make working on projects easier, not more frustrating. It should protect your tools from the elements as well as secure them so they don't hit each other with movement. It should also fit in an area that is easily accessible at all times.

Home Repair Books/YouTube- The most important tool for your home is your brain. Understanding the correct maintenance and methods for repairs is essential. Before starting any project, research, read, and watch others doing it. Find a step-by-step walk-through that makes sense to you. As always, if you are in doubt, call a professional. Not only will they help you fix the problem, you can ask questions and learn from them so you can fix it next time.

****Lesson Assignment:** Start building your own tool box or check your parent's toolbox for the basic tools above. Work until your home has a complete basic toolbox.

102. Purifying Water

Modern homes bring clean water into the home through a series of water treatment plants, underground pipes, and indoor plumbing systems. Most of the time, this is provided through a utility service that is trained in purifying, testing, monitoring, and adding supplements into the water supply for the city. The water is constantly tested to ensure safety and cleanliness. The utility provider should provide annual reports of the contents and treatment of water within your area. You can also request this information from them.

However, irrigation water, rain fall, underground well water, and water from other sources may not be safe to drink. Additionally, culinary water (or the water that comes into your home) may require additional filtering before you enjoy the taste or chemical composition. Many areas add chemicals like chlorine to the water during the cleaning process, which can affect the flavor. Cities often add fluoride, which can strengthen teeth but also have harmful side effects in some people. Depending on your area, water may contain a high heavy metal content which you may want to lower further than the city has.

For several reasons, many people choose to further treat or filter the water coming into their homes. If the water is hard, a water softener may be added, making it gentler for skin and washing. Depending on the type of water softener, you may need to regularly add water softener salt to the mineral tank. This unique type of salt can be purchased at most home improvement or general purpose stores and poured into the mineral tank until the water within it is covered. The water softener uses the salt ions to remove the hard calcium and magnesium ions, eliminating itchy, rough skin, and hard water spots in the home.

For many reasons, many people choose not to drink tap water. Tap water is the untreated water that comes out of the faucet. Some purchase water bottles at the store, using them one time and buying more when they are gone. Others refill large bottles (which can be done at most grocery stores) and use the water

there. While these methods allow you to avoid the downfalls of drinking from the tap, they can be expensive and inconvenient.

Water can be further treated at home by adding 6-8 drops of water sanitation bleach to a gallon of water and allowing it 30 minutes to disinfect, boiling it on the stovetop for 3-10 minutes and allowing it to cool, or using filters. While effective, the bleach method can be dangerous if not done correctly. It also is limited in the things it can remove from the water and will not get rid of salts, chemicals, or metals. Boiling water is impractical for everyday use, though very effective at removing bacteria.

Filters come in many different shapes, sizes, and qualities. You can make a simple filter with supplies around your home. However, a professional gravity-fed filtration system or a reverse osmosis system are the most convenient and safe methods to further purify tap water. Filtering water will change the cleanliness and taste of the water. Choosing a filter will be a matter of personal preference and need. Understanding the makeup of your water and your personal goals can help you in choosing the correct filter type. For example, certain filtration systems will remove bacteria, others will filter out metals, and others will remove the chlorine and fluoride from your water. Before purchasing a filtration system, study the reports from the utility company, the risks and benefits of each item in your water, and which filters are best at removing the items you are uncomfortable with.

Gravity-fed filters come in several varieties. Some are a simple pitcher with a filter on top. Tap water is poured in above the filter and, over time, the water trickles through to the bottom. When you are ready to use the water, you simply pour it from the bottom of the pitcher as you would for any other pitcher. These smaller-sized filtration systems are easy to store in a refrigerator, allowing you to cool your drinking water after it is filtered. Larger gravity-fed filters can also be purchased, allowing you to process more water at a time. Many of these are kept on a counter and have spigots to serve filtered water.

Reverse osmosis water filtration systems include a series of filters that are installed in-line with your plumbing system. These may be installed where your water comes into your home, in a utility room, near your water softener or water heater, or under your kitchen sink. Reverse osmosis systems contain a sediment

filter, which filters out larger particles such as dust, rust, or sand. Next, is a carbon filter, which removes salt, metals, and many chemicals from your water. Finally, a carbon block filter changes the flavor of your water. The filters are pressure-fed, using reverse osmosis and a membrane to push the water through each filter. Contaminants are discarded and clean, filtered water is stored in a water tank nearby. Often, this water tank is connected to a faucet separate from the main water faucet near the kitchen sink. It can also be connected to a water and/or ice dispenser on a refrigerator.

All filters must be maintained and changed regularly. As they are used, they become clogged with contaminants and are less efficient. The user's manual for your system will help you understand when and how to change filters.

****Lesson Assignment:** Contact your utility company and ask for the water report from the previous year. Study the report and note dangerous materials that are near, at, or above safe levels. Then, research ways that these materials may harm you if regularly consumed. If your home has a filtration system, check to see if it lowers the levels of these materials. If needed, help your family change the filters and/or adjust your water system.

103. Changing the Air Filter

Most homes now have a furnace and air conditioner, which work to warm or cool the air to comfortable temperatures. The air conditioner brings air in from outside, cools it down, and blows it into the HVAC system of the home, providing cool bursts of wind throughout the house. The furnace pulls air from the home through intake areas, warms it, and sends it out through the same ventilation system as the AC. An inefficient or damaged heating or cooling system will make the home uncomfortable and push utility bills higher.

One of the easiest ways to maintain your furnace and AC, and ensure proper airflow is to check and change the air filter in your system regularly. This filter removes dust and other contaminants from that being brought into the system. This protects the AC and furnace, but also helps to ensure these contaminants aren't in the air you breathe in your home. The filter needs to be checked monthly and replaced according to the instructions on it. Some filters are made to last up to six months, while others will need to be replaced each month. If

your filter is obviously dirty, change it regardless of how long it is supposed to last.

To check and/or change the filter, you must first locate it. Locate the utility area in your home and identify the HVAC (heating, ventilation, and air conditioning) system. Ensure that the system is not running (you can adjust the thermostat to turn off power) and locate the air filter cabinet (usually to one side or at the bottom of the system). A user's manual should be used to locate this cabinet if you are unsure. Remove the cabinet cover, usually a small latching mechanism will release the cover and allow you to pull it off. At this point, you should see the air filter. Note the direction of the air flow arrows and the size of the filter. A great way to do this is to take a picture before you pull the filter out. Pull the filter out and inspect it. If it is dirty, damp, or moldy, it needs to be changed. If it is clean, replace the filter and cover and re-start your system. If you need to replace the filter, discard the old one and carefully unwrap the new one. New air filters can be purchased at any home improvement store, but be sure to get the correct size. Note the air flow arrows on the new filter and use your photo to ensure that the new filter is placed the same direction as the old. Gently push the new filter into the cabinet, replace the door, and re-start your system.

****Lesson Assignment:** With an adult, check your home's air filter. If needed, replace the filter.

104. Controlling the Thermostat

A thermostat is the device that controls the temperature your HVAC system is supposed to maintain within your home. It is the remote control for the heating and air conditioning. The thermostat allows you to adjust the temperature, turn the heating or cooling on and off, and set routines for your home temperature. It also is the monitor which takes readings of the actual temperature and adjust the system to get it to your ideal setting.

Many times the thermostat is located in a hallway of the home. This ensures that it is not too close to a vent, fireplace, or window, all of which can affect temperature readings. It will display a time and current temperature as well as

allow you to see which system (heating, cooling, or none) is turned on. Thermostats have buttons or a touch screen that allow you to make changes to settings, turn systems on and off, and set a schedule.

Though thermostat settings will vary by household based on comfort levels and financial goals, some general rules will help make your system more efficient and affordable. Overall, the easiest way to lower your utility bill is to set your thermostat as close to the outside temperature as possible. This will reduce the amount of cooling or heating needed. However, many people are not comfortable with these levels and choose to adjust as needed. When you are home in the summer, a 78° F setting will maintain comfort while working your AC less. When you are away, you may allow your temperature to rise higher for a time, scheduling it to cool down again when you are on your way home. In the winter, a setting of 68° F when you are home and 61° F when you are sleeping or away can reduce your utility bills and increase the life and efficiency of your heater.

The process for setting the time, temperature, and schedule of your thermostat will vary based on model and type. Consult your user's manual before making any changes.

****Lesson Assignment:** Learn where the thermostat is in your home and discuss the settings with a parent. Talk about energy usage and utility bills throughout the year. With a parent's permission, set a schedule on the thermostat for a single day of the week to make your system more efficient.

105. Water Heater Temperature

The water coming into your home from the utility company is cold. However, when you turn on a bath or shower, the water quickly warms up. This is due to the fact that your home has a water heater. The water heater uses gas or electricity to heat the water as it travels through the pipes. Most water heaters have a tank of warm water waiting for use. When the tank runs out, the water in your shower becomes cold once again until it can be refilled. Other water heaters are on-demand, and heat the water as it is used. These heaters don't require a tank that is constantly being warmed, and are more energy efficient.

No matter what type of water heater you have in your home, it should be equipped with a thermostat of its own. This will allow you to set a maximum temperature for the water you use. Though it may seem nice to take a hot, steamy shower, water that is too hot can cause burns and scalding, damage pipes, and make use dangerous. Ideally, the water heater should be set at 120-130° F for the maximum temperature. However, if there are children in the home, 120° is a safer option.

Sources Cited: Comfort Solutions HVAC. (2019, July 15). *US Department of Energy's Thermostat Tips and advice*. <https://www.cshvac.com/us-department-of-energys-thermostat-tips-and-advice/#:~:text=Top%20Thermostat%20Tips%20to%20Save%20Money%20and%20Energy,when%20you%20are%20at%20home.%20...%20More%20items>

****Lesson Assignment:** With an adult, locate the water heater in your home and learn how it operates. Note the maximum temperature setting and adjust if needed.

106. Changing a Light Bulb

One simple and frequent task of home maintenance is ensuring that there are working lights in each room. This may mean working with lights wired into the ceiling, lamps, or a battery-operated lights. Each type of light requires regular maintenance and upkeep.

Battery-operated lights are the easiest to maintain. Many are inexpensive and can simply be replaced with new ones if the bulb burns out. If the batteries are low, however, maintaining the light may be as simple as turning the switch off, replacing the batteries with fresh ones, and replacing the light bulb. Additionally, some lights are rechargeable, and simply need to be turned off, plugged in, and replaced to their spot when charged.

Most of the lights in a home, however, will be hard-wired. This means that they are connected by wires to the electric system in the home. They are controlled by switches. Alternatively, lights may be connected to the electric system when they

are plugged into outlets in the home. Over time, light bulbs can age and wear out. This can cause flickering, bursts of light, or darkness. Bulbs need to be replaced when this happens.

Replacing a light bulb is a simple process. However, it can vary depending on the type of bulb and the desired effect on the room. The first step to replacing a bulb is to turn off power to the light you are working on. This may mean flicking a switch or unplugging the device at the outlet. You can also turn off the breaker for this area of the house to ensure no power will reach you. This will prevent electrocution. Allow the bulb to cool, if needed, before handling it. Bulbs that have recently been lit will be hot. Bulbs will be attached to the light either with a screw-on metal bottom (most common) or through pins at the bottom or ends of the bulb. To remove the old bulb, simply twist counterclockwise or pull the pins from the connection points. Work carefully and be gentle with the bulb, as it can easily break. If a bulb is broken already, use pliers to grip the center of the base and carefully unscrew it without touching the broken glass. (Broken fluorescent bulbs pose an additional risk of mercury poisoning and require additional safety measures. If you have fluorescent bulbs in your home, please ensure that you are aware of proper procedures.) Dispose of the spent bulb and replace it with the new one by screwing it into the base, turning clockwise until it is snug, or pushing the pins into the proper areas until firm.

Many lights have a cover that may need to be removed before changing the bulb. Most have a small area that can be lifted off or unscrewed from the bottom. When removing the cover, ensure that you support it, as it may fall. Replace the cover carefully after changing the bulb while the light is still turned off. Ensure that all pieces are secure before letting go of them.

After the bulb is replaced with a new one, ensure that it works by turning the power back on and flipping the switch on. If needed, turn the power off and tighten or adjust the bulb again.

Choosing a lightbulb to replace the one that has burned out will depend on many factors. Most households use LED and/or incandescent bulbs. LED bulbs use less energy and produce a cool light while incandescent lights produce more heat and offer a warmer light. The type of light you choose will depend on the mood and atmosphere, as well as the intended use, for the light in that room.

Light bulbs also offer different levels of brightness. This is measured in lumens. The more lumens a bulb has, the brighter it will be. Usually, the lumen level of a bulb can be found on its packaging. Areas where bright light is important (e.g. offices, kitchens, etc.) will require bulbs with higher lumens.

Another measurement you will find on the bulb packaging is Watts. Watts are a measurement of how much energy a bulb will use. The higher the wattage, the more electricity will be needed for the bulb to work. The wattage of LED lights is lower in incandescent lights of the same lumen level.

Light color is also measured in bulbs. Color is measured from soft white, a standard color used for bedrooms and living rooms, to daylight, which are bright enough to allow safe reading. Warm white lights are great for kitchen, workspaces, and bathrooms, while bright white lights are perfect for areas with chrome or white fixtures.

Light bulbs also come in different shapes. Standard lightbulbs are a tear-drop shape. These are used in lamps and ceiling fixtures. Globe bulbs are a spherical shape and are often used in decorative lighting. Candle bulbs are oblong in shape with a point on the top, like a candle flame. These are often seen in chandeliers. Spotlights are domed in shape and are used above art, in recessed lighting, and in some outdoor lighting.

Sources Cited: Gregory, B. (2023, April 6). *Light bulb types: How to choose the best light bulbs - lowe's*. Light Bulb Types: How to Choose the Best Light Bulbs. <https://www.lowes.com/n/buying-guide/lightbulb-buying-guide>

****Lesson Assignment:** Help an adult safely change a lightbulb in your home. Note the lumen, wattage, and color of the bulb on the packaging and discuss why it is appropriate for the area in which you are placing it.

107. Understanding the Breaker Box

The breaker box, or electrical panel, is the central control for the electricity in your home. Here, the power coming into your home from the utility company is

distributed to various places in your home. The breaker box is usually located on a wall in your home and covered with a hinged, metal door.

After opening the door on your breaker box, you will see a series of rocker switches. These switches each correspond with a zone in your home and control the electrical flow to that zone. If a switch is turned to the OFF position, electricity does not flow to that zone and the outlets, light fixtures, and other electrical items there. A switch turned to the ON position means that electricity is flowing to that zone. Zones should be clearly labeled by the homeowner in pen so that you know which switch controls which items. A switch can be manually turned ON and OFF in case of emergency or safety during certain projects. Alternatively, if too much electricity flows through a certain zone, a switch will automatically turn off, protecting the items using that electricity and the home from the risks associated with a high energy flow. This is known as a tripped breaker. When the issues has been dealt with, a breaker can be turned back to the ON position manually to restore power. Additionally, some GFCI outlets, usually found in kitchens and bathrooms, may need to be reset after power is restored. This can be done by pushing the button on the outlet that says RESET.

There are three different types of switches in most breaker boxes. A single pole breaker, which appears to have just one switch, and a double pole breaker, which is two switches stuck together. The double pole breakers can handle a higher energy load and usually are connected to high-energy appliances, such as a refrigerator. Additionally, at the top or bottom of your breaker box is a larger switch known as the service disconnect switch. This controls all the electricity coming into the home. In case of emergency, this is the switch that you will rock to the OFF position.

Finally, breaker boxes may have empty expansion slots. These areas are meant to add switches in the event that the home is expanded or additional outlets/switches are added. This should only be done by a licensed electrician.

Sources Cited: Tollie, J. (2023, April 5). *Breaker box 101: Parts of a breaker box or Electrical Panel Guide*. Jeremy Electrical.
<https://www.jeremykc.com/blog/breaker-box-101-electrical-panel-guide/#:~:text=Breaker%20Box%20101%3A%20Parts%20of%20A%20Breaker%20Box,Needs%20...%205%20Replacing%20a%20Breaker%20Box%20>

****Lesson Assignment:** With an adult, locate the breaker box for your home. Ensure that each breaker is labeled with the correct area by turning off one breaker at a time. While the breaker is off, search the house until you find the zone that has no power. Label, or check the already-existing label for accuracy. Ensure electronics and other sensitive electrical appliances are turned off before tripping the breaker they are attached to.

108. Changing an Outlet

Outlets are the areas in your home that you plug items that use electricity into. They provide a safe way to connect lamps, computers, chargers, and other devices into the electrical current coming into your home through wires in the walls which are connected to the breaker box. Outlets in the US generally provide 120 volts of power to items plugged into them.

Over time, outlets may need to be replaced. This may occur for a number of reasons. Outlets may be too loose, the wrong color or style, or may have had an incident that makes them no longer safe (e.g. something is stuck in the outlet, the outlet feels hot or smells like smoke). Replacing an outlet is a simple process, but requires careful consideration of safety as electrocution is a risk.

To replace an outlet, first turn off the power to that outlet in the breaker box. Ensure that power is off by plugging a lamp (or other device) into the outlet and attempting to turn it on. If it doesn't work, the power is off. Alternatively, you can purchase a voltage tester at a home improvement store and test the outlet with it as an extra precaution. Next, use a flat head screwdriver to carefully remove the faceplate. This is usually a plastic or metal square/rectangle piece that sits flush to the wall. When the faceplate is off, you will see the outlet mounting screws at the top and bottom of the outlet. Remove these screws and gently pull the outlet from the hole it is nestled in. On the sides of the outlet, you will see where the wires are connected. The black wire, connected to brass terminals is generally the hot wire. The white wire, connected to the silver terminals, is usually the neutral wire. The grounding wire is usually copper or green and connected to the green terminal. Note the locations of each of these wires and take a picture with your phone. Then, unscrew the wires with a screwdriver, carefully working to keep the wires intact. Wires that are damaged may need to be trimmed and further stripped to create a hook once again. Next,

ensure that the amps of the old outlet match the amps of the new. Then, install the new outlet by attaching the wires to it exactly as they were attached to the old one. Each wire should hook around the correct screw and then the screw should be tightened around it. Gently push the outlet back into the wall and replace the mounting screws. Replace the wall plate, restore the power, and test the outlet. The process for replacing switches is similar and the same skills can be used.

Sources Cited: *How to replace an electrical outlet*. The Home Depot. (n.d.).
<https://www.homedepot.com/c/ah/how-to-replace-an-electrical-outlet/9ba683603be9fa5395fab908943e20a>

****Lesson Assignment:** Assist an adult in your home with replacing an outlet and/or switch.

109. Unclogging a Drain

Water provided by utility companies comes into our homes through a series of pipes. When we turn on the tap, flush the toilet, or open a faucet, water flows into our home so that we can wash, cook, and clean. After we use it, water drains through another series of pipes back to the utility company for cleaning a re-use. These pipes, however, can sometimes become clogged and slow or stop the flow of water out of our home.

Clogs are a regular part of living with indoor plumbing, but the best way to prevent them is to be careful of what goes into your pipes. Never pour large items, grease, sand, paint, or hair down your drains. Items such as pasta, cereal, tea bags, coffee grounds, and other solids should be placed in the trashcan before dishes go into the sink. Ensure that hot water runs through each drain at least weekly. Additionally, you can add a mesh screen to sink and tub drains to prevent larger items from accidentally falling down a drain. Regularly clean your drains using a commercial product or by pouring $\frac{1}{2}$ c. baking soda and 1 c. vinegar down your drain, letting it sit for 10 minutes, and then rinsing with hot water. This

helps break up clogs and prevents items from sticking to the pipes in the future. This should be done about once a month.

If a clog does occur, first try to remove any items on the surface of the drain by hand. You may want to wear gloves and will need to wash your hands when finished. Some drains will allow you to reach down the pipe a few inches and you may be able to remove more items in this way. If that doesn't cure the clog, try an extra baking soda and vinegar treatment and run hot water. This is a great solution if the drain is simply slow and the water is not fully blocked from draining. In more extreme cases, a plunger or plumbing snake can be used. A plunger is a device that has a rubber or plastic cup on the end and a stick handle. They can be found in most grocery and home improvement stores. Each house should have a plunger on hand. When using a plunger, it's a good idea to wear eye protection, gloves, and old clothing as splashing may occur. To use a plunger, place the cup above the drain and push the plunger down to create an air-tight seal. Without breaking the seal, push the plunger up and down for at least 20 seconds. Then, pull straight up and pop the seal. These actions will create pressure, hopefully breaking up the clog. If the water doesn't drain, or still drains slowly, repeat the process. When finished, the plunger should be cleaned and dried to prevent spread of bacteria and mold.

Finally, for very stubborn clogs, a plumbing snake may be needed. This is specialized tool that can go into drains and manually break up clogs. It consists of an auger head, a metal cord, and a drum that holds the cord. On the drum is a handle to hold the snake and one to spin the coil out. Before using a plumbing snake, make sure there are no chemicals in the area you are working and wear protective gear. If you are unsure, it is best to call a plumber. To use the snake, place the auger head in the drain. Grip the handle firmly and spin the top handle to push the cord out. Gently guide the auger down the drain, don't push too hard or you may damage your pipes. You will feel when the auger hits the clog, as it will feel firmer. Spin the handle to push the auger through the clog, manually pull it back about a foot, and repeat the process to break up the clog. To remove the auger, gently and slowly pull the cord back into the drum. If it doesn't come out easily, use the handle to spin the cord in the opposite direction until it is unstuck. Then, flush the drain with hot water.

For toilets, ensure that you flush only waste products and toilet paper. Wipes, feminine hygiene items, and other items should not be flushed. For larger loads, flush multiple times, rather than trying to flush all waste at once. If a clog does occur, dish soap can be poured into the toilet to act as a lubricant. When the soap is flushed, it will help loosen the clog and push it out. In some cases, a toilet clog can be fixed with a plunger in the same way as a sink or tub clog. In extreme cases, a plumbing snake may be needed. However, a special toilet auger head should be used to prevent damage to the porcelain.

Though you can purchase chemical clog treatments, these can damage your pipes with repeated use and are not recommended. They also introduce additional pollutants into the water supply. If a clog is severe and you cannot correct it, it is best to contact a local plumber for help.

****Lesson Assignment:** Clean the drains in your home with the baking soda and vinegar method. If your family has a slow or clogged drain, do what you can to fix it.

110. Fixing a Running Toilet

Clogs are not the only common issue with toilets in the home. Running toilets can be an annoying, noisy, and costly issue. However, it is usually easy to fix.

Toilets consist of several parts. First, a water line brings water into the toilet tank. This is the tallest part of your toilet and is located towards the back of it. The tank holds clean water for the next flush. When the handle is pulled down, the bowl is drained into a pipe below the toilet. This is how the waste and water is removed. The tank also releases new water into the bowl, allowing for the bowl to be rinsed and providing pressure to push the waste downwards. When the handle is released, the bowl stops draining and begins filling with new water. This new water also comes from the tank. As the water level in the bowl increases, the water level in the tank decreases. Inside the tank is a float, which floats on top of the water. When the water level goes down, the float is pulled down by gravity, opening the tank to the waterline coming into it. This refills the tank until the float has enough water to float upwards and close the input valve.

A running toilet means that this valve is not working properly and will not turn off. This can lead to excessive amounts of water coming into the tank and a constant noise. With water always running, your utility bill can increase greatly.

To fix a running toilet, you first need to turn off the water input to the toilet. This can be done with a valve on the input line. You will find this behind the toilet, usually behind the bowl. It is an oval-shaped faucet that can be turned clockwise until it stops.

Next, you will need to check the flapper. To do this, remove the lid of the tank and carefully set it aside. It should simply lift up. The flapper is the lever and plug contraption that blocks the water from flowing into the bowl until the handle is pulled. Gently pull up on the lever and check to see if the flapper is sealed correctly against the bottom of the tank. If the flapper resists being pulled up, it likely has a good seal. If not, it will need to be replaced and is likely the source of the running toilet.

Next, check the fill valve, the area from which the water has been running into the tank. If you see any cracks, this will need to be replaced. You can also remove the top of the valve and check the seal. This is a small black circle piece. If the seal is damaged or calcified, it needs to be replaced. To check the seal, gently unsnap the float lever and turn the lid of the valve a quarter turn to the left. Pull the top off. The seal will be in the "lid" of the valve. Clear any debris in the valve by allowing water to flow through it. Pull the seal from the lid of the valve and rinse the other part. To replace the seal, simply line up the pin on the lid with the hole in the seal and push it on. Replace the lid on the fill valve and reattach the float rod.

The other issue may be with the float itself. The float can be adjusted by turning the screw or sliding a clip along the rod. This will increase or decrease the level at which the float will close the valve. If the float still does not work properly, it may need to be replaced.

After each adjustment, turn the water back on and run a test flush cycle to check to see if the toilet is still running. If the first correction ends with a fully closed valve in the tank, your work is done. If not, turn off the water and continue through the list to see if you can find the problem. If these simple fixes don't work, contact a local plumber.

Sources Cited: <https://www.youtube.com/watch?v=W6IVEuOoKzg&t=7s>

****Lesson Assignment:** With an adult, open the tank on a toilet in your home. Flush the toilet and watch how it works inside of the tank. Identify each part and check the fill valve for cracks, the flapper seal, and the float. Make adjustments if needed.

111. Changing a Doorknob

Doorknobs are everywhere we go, yet we rarely think about them. They provide us with privacy, safety, and allow us to compartmentalize parts of our home. However, like other hardware in the home, they sometimes need to be replaced due to personal preference, malfunction, or differing needs.

Doorknobs come in a variety of colors, shapes, and types. Some doorknobs, such as those found on closets, simply hold the door closed. Others, such as those on bathroom doors, lock from one side and don't require a key, providing privacy in an otherwise safe environment. The doorknobs we put on our front doors lock and require a key to open from the outside, providing protection from intruders. The first consideration you need to make when choosing a doorknob is what you want it to do. Do you need a door that is easy to open and close but allows the area to be closed off? Do you want extra privacy or security?

Next, doorknobs come in several shapes and colors. Most of the time, this choice will be one of personal preference. Ball doorknobs are common and less expensive than other options. Brass doorknobs are antibacterial. Keypad doorknobs allow for a combination to be entered to unlock them rather than a key. Half-dummy doorknobs are easier to control than ball door knobs for people with arthritis. Before choosing a doorknob, consider your family's needs and preferences in appearance. A home looks more put-together if all the doorknobs match in color.

To change or replace a doorknob, you will need a Philips-head screwdriver. To remove the existing doorknob you will need to unscrew the two screws in the throw latch unit (located on the door where it meets the frame) and on the inside

knob. This will allow you to pull both the latch unit, inside, and outside knobs apart and off the door. Additionally, you will want to unscrew the strike plate, the piece of metal that the latch unit touches and latches into on the door frame.

Next, you will simply place your new doorknob parts in the areas where the old ones were. Be sure to place the side with the screws on the inside of the room. This will protect security and privacy, especially if it is a locking doorknob. The parts will line up with each other to ensure they are properly installed. Then, simply tighten the screws, install the new switch plate, and test the doorknob. If needed, adjustments can be made to ensure that the latch unit and switch plate line up correctly.

****Lesson Assignment:** Note the types of doorknobs in your home and why your parents may have chosen each type for the location it is in. If needed, help your parents change a doorknob.

112. Lawn Care

Most homes have a lawn of some sort, whether small or large. Lawns provide a green space that serves as a recreation and relaxation area. Lawns, like other living things, require regular care

The biggest lawn chores are mowing and watering. Watering amounts and times will vary based on season, but generally grass needs one inch of water per week. This means that you should water at least 30 minutes, twice a week. In cool or wet weather, you can water less frequently. In warmer weather, your lawn may need more water. In the winter, your grass should be dormant and will not need to be watered unless you live in very warm climates.

How you water will depend on the resources you have available. Above ground sprinklers are moved around manually and connected to hoses. Pop-up sprinklers are attached to the water line by underground pipes and can be set on a schedule to water automatically. Smart water systems measure the humidity in the soil and adjust the watering schedule accordingly. Irrigation systems flood the lawn and can be automatic or manual.

Mowing the lawn can be done with a manual push mower, an electric or gas push mower, or with a variety of ride-on types of mowers. Though the frequency of mowing will vary by growth rate, weather, and type of grass, lawns generally need to be mowed once per week. Mowing machines should be regularly maintained according to the user's manual, ensuring proper gasoline or power, oil, and sharpened blades. All safety measures should be observed as mowing carries risks of lacerations and being hit by flying objects. Lawns should not be cut when the grass is wet. Cutting heights can be adjusted based on the season and type of grass, but grass should generally be cut to 2-3 inches. Grass is generally cut by pushing or driving the mower through the lawn in consecutive, straight lines, much like vacuuming a carpet. An edger or trimmer may be used to cut grass around the perimeter of the lawn, around trees and shrubbery, or around other landscape items.

Lawn mowers may have a bag that collects trimmings or may simply let them drop to the ground after cutting. Each of these types of mowers have benefits and pitfalls to them. Bagged mowers allow the removal of dead grass, increasing airflow to the living grass and preventing the spread of disease. However, allowing the grass to fall onto the ground provides extra nutrition to the living plants as cuttings break down.

Depending upon the type of grass, the soil quality, and the health of the lawn, fertilization methods and types will vary. Generally, lawns should be fertilized four times a year. In the early spring, a lawn feed and weed blocking fertilizer mix is recommended. This will prevent germinating weed seeds from growing and provide your lawn with the nutrition it needs to come out of its dormant, winter state. About six weeks later, a weed and feed will boost the nutrients to your grass and provide additional protection against weeds. By mid-summer your lawn will benefit from a slow-release feed to boost it during hot temperatures. Finally, a fall and winter treatment should be placed before the grass goes dormant once again, providing a store of energy through the winter. Fertilizer can be applied using a seed spreader. Follow the recommendations and instructions on the package of your fertilizer for the best results.

Fertilizers come in many different mixtures and contain different minerals and nutrients depending. It is important to use a fertilizer made for lawns and pay

attention to what you are feeding your lawn. The three main nutrients listed on fertilizers are nitrogen, phosphorus, and potassium. You will find the amount of each of these in the numbers listed on the front of the package. Nitrogen helps keep the lawn green and stimulates growth. Phosphorous helps with root growth and seed sprouting. Potassium protects against disease and stress. The levels of each mineral in your fertilizer will be changed based on the season and needs of your lawn.

Aeration and dethatching are two things you can do to maintain a healthy lawn that don't require regular work. Aeration is a process in which a machine punches holes into the soil of your lawn and removes plugs in regular intervals. This softens the soil by breaking it up and allows air, water, and nutrients to better penetrate the ground and reach the roots. This should be done once a year, in the spring.

Dethatching is a process in which a power rake is used to remove dead grass, leaves, and other debris that has been packed into your lawn. This also improves water, air, and nutrient access to the roots of your lawn and encourages new growth. Dethatching should be done when the thatch is at least an inch thick in your lawn. You can test this by raking an area and looking for the layer of debris that has accumulated there. Dethatching can be done in the spring, after growth has started.

After aeration and dethatching is a good time to seed your lawn, if needed. Seeding can help fill in blank spots and patches or begin a new lawn. To seed, ensure the ground is free of rocks and other debris. Level the area with a rake and break up the soil. Use a seed spreader to cover the area in the appropriate amount of seeds (see instructions on package) and water. Ensure that the seed stay wet and protected from traffic until the grass is well-established.

***Lesson Assignment:** With an adult, perform a lawn maintenance task that your lawn needs. This may mean watering, mowing, fertilizing, assessing thatch level, or seeding.

113. Fixing a Sprinkler

Many homes now have pop-up sprinkler systems. This is a series of sprinklers that lays flush with the lawn while it is not running and pops up when the system is on. Pop-up sprinklers can be scheduled in zones and will run automatically without having to move sprinklers around or worry about hitting them with a mower during the day. This allows you to water your lawn during the night, conserving water and ensuring your lawn gets the most out of every watering.

Pop-up sprinkler systems consist of underground pipes connected to a water source (e.g. your main water line, a well, a faucet connected to your home), at the end of each pipe is a sprinkler head. Each head will be unique to its location and the needs of the plants around it. Some heads will spray a full circle around them, others will spray a semi-circle, and others will be adjust to spray only small spots. Additionally, drippers may be connected to your system for ornamental plants and shrubberies. The system also has a backflow preventer, which keeps leaves and other debris from being pulled into the system by changing water pressures, and a series of valves, which control which zone is watered at which time. The main valve will likely be in your yard, below the ground and protected by a plastic box (usually green in color). Finally, the system will have a control panel, usually located in a garage or on an outside wall. This system allows you to set the schedule for watering and turn the system on and off in different seasons.

Scheduling the sprinkler system with the control panel is an important part of lawn maintenance. The method will vary by model so consult your owner's manual for instructions. Be sure to turn the system off in the winter.

Additionally, some systems will need to be blown out (use an air compressor to push the water out of the pipes) to prevent freezing. Some systems have an automatic drain device that does this for you each time the system turns off.

Over time, sprinkler heads may become worn or clogged, out of adjustment, or damaged. You may notice a yellow or brown patch of grass that isn't getting water or a puddle around one of your sprinkler heads. This means that the system isn't functioning properly and needs to be checked.

The first step to checking sprinkler heads is to manually run each zone at a time where you can see them. During the day, turn your system on, one zone at a time, and walk to each head, noting problems you notice. It is a good idea to do

this at the beginning of each season, as well as when you notice an issue. This is also a good time to clear clogs from drippers by removing the dripper head when water is flowing through it and allowing water or air to push out clogs.

Once you know where the problems are, you can start to troubleshoot. First, clear the dirt and debris from your damaged sprinkler head about one inch into the ground. This allows you to see any cracks or damage and gives you a clear space to work. Turn off the water to that zone while you are working.

If the top of the sprinkler head is the only part damaged, you can simply unscrew the top, pull it upwards to remove the head and inner parts of the head, and replace that part by simply screwing a new one in.

If the casing below the head is damaged, you will need to dig out the entire sprinkler, down to the elbow below it. Be careful not to damage the pieces below the sprinkler as you dig. The sprinkler unscrews just above the elbow joint and can be replaced by screwing a new sprinkler in where the old one was removed. Be sure not to get dirt or debris in the elbow joint as it will cause clogs. Be sure to replace the sprinkler with the same size and watering pattern as the one you removed. Replace the new sprinkler into the ground and bury it to the head, just as the previous one was sitting.

If there is no damage to the sprinkler, it may be clogged or need to be adjusted. Additionally, replaced heads and sprinklers will need to be adjusted to your needs after they are placed in the system. To unclog a sprinkler, you may simply be able to clean off the nozzle with a toothbrush to remove debris. If the clog is further down in the sprinkler, it may be easier to replace it. Adjusting your sprinkler will depend upon which type you have. You may have one that has a turret, or shaft in the middle of the sprinkler. This can be pulled upwards and turned clockwise until it is adjusted to the watering pattern you want. After it is adjusted, you will need to add a nozzle to the top of the turret. Alternatively, the sprinkler head may already have a nozzle. To adjust this type, you will need to remove the nozzle (most can be carefully removed with a flathead screwdriver or specialized tool from the sprinkler company) to access the turret. If your sprinkler is gear-driven, you will see a series of areas where you can work on adjusting the sprinkler from the top of the head. You will need the tool that from your sprinkler company to accomplish this. First, you simply insert the tool into the notch that is

a “t” shape and turn a quarter turn clockwise, releasing the turret and allowing you to pull it upwards. In these types, a small screw is in front of the nozzle, which is on the side. By moving this screw up or down, you can adjust the spray pattern. On the top of the head is a notch with a + and – on either side of it. Adjusting this will increase or decrease the arch of the spray. Adjusting a sprinkler will take time. After each adjustment, run the zone you are working on and check to see if improvements need to be made.

Sources Cited: <https://www.youtube.com/watch?v=gU3yWQWMAV8>

****Lesson Assignment:** Identify the type of watering system your home has and complete a watering cycle on your own. If you have an automatic watering system, manually run each zone and check sprinkler heads and drippers for damage, clogs, or the need for adjustments.

114. How to Change Caulking

Caulk is used to seal around sinks, bathtubs, showers, and toilets. It is often found around windows and along baseboards. It can also be used to seal woodworking projects (chair rails, decorative designs, etc.) or other joints. Caulk prevents water damage and drafts and gives a smooth, finished look to projects.

Over time, however, caulk can shrink, move, mold, or become detached. This not only breaks the seal, it decreases the attractiveness of your home. Caulk should regularly be inspected for cracking, mold, and shrinkage. If issues are noted, caulk needs to be replaced. This is an inexpensive and easy fix that can save you from more expensive damages later.

The first step to replacing caulk is removing the old caulk. There are several ways to do this. You can use a razor blade to cut the top and bottom of the caulk line and then simply pull it out. There are also specialized tools for the job. Either way, remove as much of the old caulk as you can. If you are dealing with moldy caulk, use a toothbrush dipped in bleach water to remove the mildew after removing the caulk.

When the area is clean and dry, place your caulk tube into the caulk gun. Be sure to purchase the correct caulking for your project. There are many varieties in several colors. Packaging will give information on the type and color and suggested projects. Tighten the back of the gun against the bottom end of the tube. Cut a small piece of the tip from the nozzle of the tube. Place the nozzle at the starting point of your project. Firmly press the trigger of the caulking gun and move it along the project in at a steady pace, applying constant pressure. Don't allow caulking to bead larger than the hole you are filling.

Finally, use a caulking tool, or your finger dipped in warm, soapy water, to smooth the caulking. Simply run the tool or your finger across the project to gently remove excess caulk and create a smooth finish. Check to ensure your seal has no gaps and fill those as needed. Allow your caulk to dry for the recommended time.

*Lesson Assignment: Locate several different areas of your home that are caulked. Then, identify one that needs to be replaced and help an adult complete the project.

115. Emergency Contacts

Every homeowner and renter should know what to do in the event of an emergency. Water line breaks, earthquakes, gas leaks, power outages, medical issues, flooding, fire, and other unforeseen circumstances can put humans, animals, and property in danger of further damage.

Having an emergency contact list is a great way to prepare. If electricity, internet, or phone lines are down, you may not have access to your normal methods for gaining contact information. Printing and displaying your emergency contact list in a central location of your home can save you time and energy in an emergency. This list should include contact information and addresses for: your home and each person in it, your local emergency line (e.g. 911), your local county sheriff, police, fire, and ambulance services, poison control, each of your utilities (electric, gas, water, sewer, garbage, phone,), local transportation options (e.g. airports, bus stations, local transit companies), state road conditions, the local postal service, family or friends that live nearby, family or friends in another area, bank and

credit card companies, the American Red Cross, your primary care physician, specialist physicians you regularly see, your pharmacy, your dentist, local urgent care centers, homeowners and car insurance companies, health insurance companies, and veterinarians.

In the event of an emergency, you may need to turn off your own water, gas, or electricity. Ensure you are prepared for these situations before they occur by having extra food and water on hand, an alternative way to cook and warm your home, and a knowledge of how to control utilities in your home.

Turning off the electricity in your home is as simple as flipping the main switch in your breaker box. This may need to be done in the event of a gas leak, downed power line, or unsafe conditions in your wiring.

Your water, too, has a main valve coming into your home. This may be on an exterior wall or in the ground. You may have two: one for culinary water and one for irrigation water. Most of these can be turned off simply by turning a handle on the valve. This may need to be done in the case of a broken water line, a broken faucet, or a leak.

To turn off your gas, you will need a specialized tool that can be found online and in most home improvement or emergency preparation stores or a crescent wrench. Turning off your gas line is necessary if any of the gas lines have been damaged, if there is a leak, and, possibly, in the event of a major earthquake. Turning off the gas can prevent explosions and fire if there is damage or a leak to the system. To turn off your gas, locate your gas meter, usually found on the outside of the home. Near the meter will be your quarter-turn valve on the line bringing gas into the meter. This is a vertical line coming out of the ground. If your valve handle is in line with your gas line pipe, your gas is on. To turn off the gas, simply use your tool or crescent wrench to turn the valve a quarter-turn clockwise. If you turn the gas off, do not turn it back on. Many appliances in your home run with a pilot light, which provides a constant fire that burns the small amounts of gas that are constantly running into your home. Without this small flame, gas will leak into your home and create dangerous conditions. If you turn off your gas, ensure that all pilot lights are re-lit as well. Call your utility company to do this.

****Lesson Assignment:** Create or update your family's emergency contact list and display it in your home. Then, locate the electric, gas, and water shut-offs and tools you may need (but do not turn them off).

Chapter Sixteen: Laundry

116. Sorting Laundry

Doing laundry is a constant, ongoing chore throughout life. From the day you are born, the clothing you wear must be sorted, washed, dried, and folded. Modern technology has made this chore quicker, more efficient, and easier. However, some techniques are important to understand to prevent damage to clothing and make items last longer.

The first step to washing your clothing is understanding the basic categories it can be sorted into. Sorting laundry allows clothing of different fabrics, colors, and sturdiness to be laundered together, reducing loads while protecting the integrity of the fabric. A good place to start is by looking on the care tag for washing instructions (more on this in the next lesson). Tags are usually found on the inside back collar or in the side-seam of garments. These instructions can give you an idea of water temperature and cycle choices for each garment. Items that are labeled dry-clean only can be separated from the pile at this time, as they will need to be taken to a dry-cleaner that specializes in this method. Items labeled as hand-wash only can also be separated into their own pile.

Next, laundry should be sorted by color. Dark colors (e.g. navy blue, black, red, denim, etc.) should be one pile. Light colors should be another. Whites, towels, and bedding should each have their own piles. Delicates (e.g. pantyhose, lingerie, some costumes, etc.) should be in their own pile. This pile should also be sorted by color, though separate from the other laundry.

Finally, very heavy fabrics (e.g. jeans) and heavily soiled items should be placed into their own piles. This will insure that heavy items don't damage more delicate ones and soiling does not spread to items that are already more clean.

Sorting can be done just before laundry is washed or you can purchase a laundry sorter, which allows laundry to be placed into different containers as you throw them into the hamper. Alternatively, you can use separate laundry baskets or hampers to do this.

If loads are small, some may be combined. For example, jeans can be washed with darks, delicates can be placed together in one load (especially if a color-

catcher is used), or colors and darks may sometimes be washed together as long as the colors aren't at risk of bleeding.

New clothing should be laundered separately for the first wash, allowing excess dyes to wash out without coming in contact with other clothing.

*Lesson Assignment: Sort your family's laundry according to the instructions above and any additional instructions

117. Understanding Instructions

While sorting laundry, you may notice certain symbols on the instruction tags of clothing. These symbols are further instructions on the laundering and care of garments. It is important to learn and understand what these symbols mean and how to use them to sort, wash, and care for your laundry.

*Lesson Assignment: Research laundry symbols online, looking for the ones you've noticed on your family's clothing. Create or purchase a chart to post near your family's laundry area to help you remember these symbols. Make changes to your sorted piles as needed with this new information.

118. Washing Laundry

Now that you've sorted your laundry and understand the requirements for each garment and pile, you are ready to wash. Today, laundry is usually washed using a washing machine either in your home or at the laundry mat. If you are using a laundry mat, you will need to take detergent, quarters, and other necessary items with you.

The first step of washing laundry is pre-treating stains. The most important part of treating stains is to act quickly. A stain that is allowed to sit can set in and ruin clothing. First, use a paper towel to blot the stain to remove any excess liquid. This prevents the stain from traveling further into the fabric. If the stain is dry, use a scrubbing brush to remove what you can. Next, treat the stain. Depending on the type of stain, the treatment you use will vary. Below are some common stains and treatment options:

Protein-Based Stains (e.g. grass, blood) – Use a liquid detergent formulated for stains. Pour directly onto stain and use a toothbrush and a circular motion to allow the detergent to work into the fabric.

Grease Stains- Use warm water and detergent to soak the garment before washing. Dish soap can also work. Additionally, chalk dust can be used to soak up grease before beginning treatment.

Stain on a White Garment- You can use a detergent that includes bleach on these garments, if needed. First, soak the stain with the detergent, then wash it as you normally would.

Body Oil Stains- Rinse the garment in cold water before washing as you normally would.

Dirt Stains- Add liquid detergent to cold water and soak before washing as normal.

Alternatively, you can purchase a laundry stain spray or pre-treat product to treat most stains. This requires application and time to soak before washing.

Water temperature is another important consideration when cleaning clothing. Most machines have settings with a range of temperatures including hot, warm, and cold. Different temperatures are appropriate for different fabrics and stains. Knowing which temperature to use can protect your clothing from shrinkage and damage. First, check the label of each clothing item for a washing temperature. Then, consider these general rules: Hot water is used for white clothing worn close to the body, linens, towels, heavily soiled items, or items that need to be sanitized. Hot water is best for removing oil stains, but can fade colors and shrink fabrics if not used correctly. Warm water is best for synthetic fabrics, but does not provide the sanitizing effects of hot. Cold water is best for dark-colored items and delicates and is least likely to shrink items. Any load can be washed with cold water, but it does not yield the same stain-fighting and sanitizing effects. Before each load, check and set the proper temperature for the items being washed.

Cycle selection is the next consideration to make when starting laundry in a washing machine. Cycles vary by machine but common cycles include *normal*, *whites*, *delicate*, *rinse and spin*, *quick wash*, *permanent press*, *heavy duty*, *bulky loads*, and *sanitize*. The most commonly used setting is *normal*, which is suitable for normally soiled clothing and bedding. The *whites* cycle may include a pre-soak or extra rinsing. This is best for heavily soiled items, white clothing, and the ability to add bleach to the load. The *delicate* cycle is ideal for delicate clothing or

anything with a “gentle” instruction on the tag. This cycle uses a slower spin to reduce damage to fragile fabrics. *Rinse and spin* does not use detergent and simply rinses out clothing. This is useful for swimwear items or when items being washed in another cycle may need an extra rinse. *Quick wash* is used for very small loads that need to be done quickly. *Permanent press* is useful for fabrics that wrinkle easily and is usually indicated on the garments tag instructions. This cycle may also be known as wrinkle control. *Heavy duty* cycles are used for heavily soiled loads and help to remove stains. The *bulk* cycle is used for large items such as bedding, sleeping bags, jackets, and rugs. The *sanitizing* cycle can be used to sanitize items such as towels and bedding with hot water. The cycle should be carefully selected as you consider the washing instructions on garments, the soil levels, and the size of the items you are washing. Additionally, your washing machine may include a water level selection. This can be adjusted as needed, allowing conservation of water for smaller loads and the depth of water needed for larger loads.

Finally, laundry detergent must be added to your washing machine before you begin to wash most loads. Choosing the best detergent for your laundry will be mainly personal preference. Some detergents are formulated to fight heavy stains, produce softer fabrics, or prevent allergic reactions. Others are specifically formulated to protect bright colors, wash white clothing, or remove odors. Laundry detergents come in scented and unscented varieties, liquid, powder, and pod form, and different combinations of ingredients. You will need to experiment with different types to find what works best for you. Consider special needs (e.g. babies should have unscented, gentle detergent) and wants as you choose detergent. Before starting a load of laundry, add detergent according to the directions on the container. This may be placed in a specific area of the washing machine or directly onto the laundry, depending on your washing machine. Then, close the lid, check your settings, and press start. Allow the machine to run through the entire cycle before opening.

Additional laundry additives are also available. Fabric softener, laundry sanitizer, scent boosters, bleach, and other products can be added before you begin a wash cycle. Often, these items are not needed if you use the proper detergent. However, if you choose to use them follow the instructions on the package.

*Lesson Assignment: Wash at least three different loads of laundry for your family this week. Be sure to set the water temperature, cycle setting, and water level appropriate for each load.

*Sources cited:

Leverette, M. M. (2022, October 29). *The best washing machine temperature for Laundry*. The Spruce. <https://www.thespruce.com/wash-with-the-right-water-temperature-2146348>

Maytag. (2019, July 2). *Washing machine cycles and settings explained*. Maytag. <https://www.maytag.com/blog/washers-and-dryers/washing-machine-settings.html>

119. Drying and Putting Laundry Away

Once your laundry is cleaned, you will need to dry it before use. Before drying a garment, check to ensure stains have been completely removed. Drying a stain will set it. If you catch the stain before it is dried, you can always wash it again. There are several methods for drying clothing and which one you use will depend on the instructions for the fabrics used. Drying laundry incorrectly can cause damage, set stains, and make clothing shrink.

Many modern clothing items include instructions to tumble dry. Tumble dry means using a drying machine to dry the clothing with movement and warm air. Like washing machines, dryers have different settings. Most include a normal cycle (for most clothing and linen items), a wrinkle-resistant cycle (for synthetic fabrics or those you want to remove wrinkles from), an air-fluff cycle (which removes lint and fluffs items like comforters and pillows), and a delicate cycle (for items with embellishments such as beading, embroidery, iron-on decals, or sequins). Settings should be carefully chosen based on the tag instructions. Some people add dryer sheets to their drying load, which can boost stain fighting and softness and reduce static. However, with modern machines and detergents, dryer sheets are not necessary.

Some clothing cannot be tumbled dried without becoming damaged. Most items in your delicates pile cannot withstand the heat and movement of a drier. Other items with embellishments may not be able to tumble dry, either. Items that cannot be tumble dried need to be line dried or laid flat to dry. Line dried items can be hung on a drying rack, over a banister or chair, or on a clothes line outside. Most clothing that can be tumble-dried can also be line dried to save electricity.

Clothing should hang until completely dry and, if hanging outside, weather should be a consideration. Remove clothing from the line after drying. Clothing that should dry flat can stretch and become damaged with tumble drying or line drying. This clothing should be placed on a flat surface with air circulation until completely dry.

With the invention of the washing machine and wrinkle-fighting settings, ironing is quickly becoming a lost skill. However, in certain situations clothing may need to be ironed to reduce wrinkles and allow it to lay correctly on the body. Ironing can make seams appear crisp, lay down collars, and give a professional look. Knowing how to iron is an essential skill. First clothing should only be ironed after it has been laundered and dried, check the tag for ironing instructions. This should give you an idea of which garments can be ironed, which cannot, and what settings on your iron to use. Alternatively, some irons have settings that list fabric type, which can help you determine which temperature to use on the iron. Next, check to ensure your iron and ironing board are clean. Set them up and plug in your iron, allowing it to heat to the correct setting. Most irons have a light that shows when it is ready. If you are ironing multiple items, start with the lowest setting. Lay your clothing completely flat on the ironing board. Iron slowly and firmly, ensuring you smooth the fabric (rather than add wrinkles) as you go. Iron each part of the item, flip it over, and iron the back. Never allow your iron to rest on clothing or face-down on the ironing board. Ensure that you turn off your iron and allow it to cool before putting it away. Ironed clothing should be hung to prevent wrinkles from forming again.

After your clothing is laundered, it is important to put it away in your closet or dresser correctly. Though laundry storage and organization varies based on space, time, and personal preference, some general rules apply. Clothing that wrinkles easily should be hung in a closet using hangers. Formal wear, t-shirts, items with embellishment, bras with padding, and jackets should always be hung. Small (e.g. socks, underwear, pantyhose) and bulky items (e.g. blankets) are usually folded neatly and placed on shelves or in drawers. Items that are made of stretchy or loose-knit fabrics can be hung, but it is usually better to fold them to prevent stretching. This includes sweaters, hoodies, swimwear, and shirts that are not prone to wrinkling.

*Lesson Assignment: Properly dry the clothing from the loads you washed in the previous lesson. Be sure to use the correct method. If you can, try tumble drying, line drying, and lying flat to dry. Chose at least one garment to iron, asking an adult to help as you go. Finally, fold or hang items properly and put them away.

Chapter Seventeen: Driving

120. Driving Practice and Tests

Many teenagers are excited to get their driver's license and gain the freedom that comes with being able to drive themselves where they want. Others are nervous and hesitant to learn this skill. Most are a mixture of these feelings. No matter how you feel about it, in the U.S. obtaining a driver's license opens the door to several opportunities (e.g. obtaining a job, travel, etc.). However, as car accidents are the third largest cause of accidental deaths in the U.S., learning how to drive safely and maintaining those standards after earning a driver's license can save your life and the lives of others.

Most states in the U.S. allow minors to obtain a driver's license around the age of 16. Each state has different classes, testing, and practice procedures which help you learn to drive safely and prove that you have earned the privilege to drive on the road with others. Driving is not a right in the U.S., but rather a privilege that can be taken away if the rules of the road are violated. Young potential drivers should look up the requirements in their own state including age requirements, education requirements, testing procedures, and practice procedures. However, most states have a few common traits in their driving programs.

Though the timing differs, most potential drivers under the age of 18 will need to acquire a learner's permit. This is usually done by taking a written test at your local Department of Motor Vehicles (DMV). It may come with prerequisites (e.g. a driver's education or driver's theory class) and often requires the driver to be at least 15 ½ years of age. Most state DMVs provide a handbook to help you study and prepare for the test which asks basic questions about driving in your state. Your learner's permit test will also require a eye exam, a picture, and a form that specifies your hair color, eye color, height, weight, legal name, and legal address. Your local DMV address can guide you in what requirements exist and what documents you should take when you take the test. Many states allow you to take the test several times until you are able to pass it, though they vary on how often you can re-take the test. During your appointment, you will also sign a form consenting to blood or breath tests, acknowledging your agreement to follow the laws of the road and obey the directions of law enforcement. Additionally, you will have the opportunity to declare your desire to participate or abstain from

organ donation in the event of your death. There is usually a fee associated with this process, as well.

Depending on your state, after passing the test you will likely need to take a behind-the-wheel driving class with a trained instructor. You will also need to complete practice requirements outlined by your state which often include driving with a licensed driver in the front seat for a certain number of hours, nighttime driving, and additional driving classes. Practice is often done with a parent and should include driving in different situations, on different types of roads, and in different weather. Often, starting in an empty parking lot gives the new driver the opportunity to learn the controls and feel of the vehicle in a safe way. As the driver gains proficiency, they can move on to residential roads, commercial roads, highways, freeways, and canyons. At the beginning, a new driver should practice during low-traffic times until they can safely operate the vehicle near others. Placing "Student Driver" signs on the car (these can be purchased through many online retailers) can alert other drivers, allowing them to show more patience and give a new driver extra space.

When all the requirements are met for practice classes and hours, and you have reached the proper age (usually 16 in the U.S.), you can make an appointment at the DMV for a behind-the-wheel driving test. During this test a DMV representative will join you in your car and test your driving skills to ensure that you are a safe driver. Many states provide a copy of this test online to help you prepare and practice the skills you will need to pass. While this test doesn't take much time, it is often a high-pressure and stressful time so it's important to ensure you are prepared and have practiced until you are confident in your driving abilities. The tester will ask you to complete certain tasks and drive on a pre-determined route, making notes of mistakes and things you do safely and correctly. If you pass this test with enough points, you earn your driver's license. If you fail, there is often a waiting period until you can take the test again.

****Lesson Assignment:** With your parent, look up the requirements for obtaining a learner's permit and driver's license in your state. Make a check-list of what you need to do in order to earn your driver's license and, when appropriate, work with your parent(s) to fulfil the requirements and gain your permit, and your license.

121. Driver's Education/Driver's Theory

Most states require a driver's education or driver's theory class either before or after obtaining a learner's permit. This class teaches the basics of driving and the rules of the road. It may be offered through your high school or through an online driving program. It may be an in-person or online course, depending on your state. This class will cover several areas and aspects of driving, including road signs and traffic signals, speed limits, driving hazards, following distances, lane changes, railroad crossings, driving near buses, state driving laws, and other aspects of driving. In many states, this class requires a certain number of hours and has a completion deadline. It's important to ensure that the class you choose is endorsed by your DMV or state and fulfills all requirements for earning your driver's license.

****Lesson Assignment:** Learn more about the driver's education/theory classes required by your state. With your parents, make a plan to take this class and, when appropriate, complete the class.

122. Driver's Training

Most states also require a behind-the-wheel drivers training. This is done through an authorized driving school. Many high schools provide this class or are associated with a company that does. There are also several private schools. Before enrolling, ensure that the driving school you choose fulfills the requirements and is endorsed by your state DMV.

The behind-the-wheel class can include driving simulation in addition to real-life driving in a vehicle with a trained instructor. Often, these cars are equipped with an extra set of pedals and/or an extra steering wheel so the instructor can take over control of the vehicle as needed.

During the behind-the-wheel class, new drivers will be taught hands-on driving skills in real-life situations. Instructors will teach the controls, rules of the road, and methods for driving as the student practices these skills on the road. Many of

these classes last for about two weeks, ensuring that the new driver has an opportunity to practice in various situations and locations.

In addition to this class, many states require new drivers to complete practice hours with parents, both during the day and at night. Driving is a skill that improves with experience and practice hours are an important way to gain that experience with a licensed driver beside you.

****Together with your parents, find an appropriate behind-the-wheel class and, when appropriate, enroll. Additionally, make a driving contract that outlines the expectations and responsibilities of both you and your parents as you learn to drive. An example contract can be found on the pages below.**

Parent-Teen Driving Agreement

This agreement outlines the privileges and responsibilities for teen drivers and parents in our family and includes elements of the Utah Graduated Driving Licensing Law.

I promise to obey the rules of the road

- Always wear a seat belt and make my passengers buckle up. Ensure that correct seat belts are used for younger siblings (if needed) and small children
- Obey all traffic lights, stop signs, other street signs, and road markings
- Stay within the posted speed limit
- Follow the signals and instructions of law enforcement

I promise that I will stay focused on driving

- Drive with both hands on the wheel
- Never use a cell phone (text, call, messages, videos, etc.) or other distracting device (e.g. tablet, computer, book) while driving. If a phone is needed before arriving at destination, safely pull over on the side of the road or in a parking lot to before use.
- Never drive when I am tired or drowsy
- Control my emotions when I am behind the wheel
- Avoid the use of alcohol, drugs, and other illegal substances as well as the incorrect use of prescription medications. Never allow such substances in the car.
- Never drive while impaired or allow myself to be a passenger of an impaired driver.
- Report suspected impaired drivers to the police
- Call a trusted adult for a ride home if needed due to drowsiness, impairment, or medical issue if you are the driver
- Call a trusted adult for a ride home if needed due to unsafe practices of another driver if you are a passenger
- Never eat food, put on makeup, or use earphones while I drive

I promise that I will be a responsible driver

- Gain a parent's permission before driving a sibling, friend, or acquaintance
 - Drive no one outside of your immediate family until 6 months after obtaining your license
- Tell a parent where you are going, with who, and how long you will be gone before leaving with a vehicle
- Do not drive between the hours of 12-5 am until 6 months after obtaining your license
- Pay for any traffic citations or parking tickets given to you
- Pay for gas used while you drive the vehicle, ensuring that the tank is always at least half full
- Fulfill financial agreements for purchase of car, as decided at the time of purchase (e.g. co-sign a loan and help make payments)

- Inform parents of any lights, signals, strange noises, or movements of the vehicle while driving
- If an accident occurs, stay at the scene of the incident, contact emergency services as needed, trade insurance information with the other driver, and contact parents as soon as possible
- Maintain the vehicle with regular checks of fluids, tires, and basic parts. Keep the vehicle clean

Restrictions and Penalties

- Driving while impaired = No driving for 6 months
- Citation for minor violation = No driving for 1 month
- Drove after curfew = No driving for 2 weeks
- Drove with not-permitted passengers = No driving for 2 weeks
- Irresponsible driving= No driving for 1 month

I promise to abide by the rules, regulations, and restrictions in this agreement as well as any laws of the road that apply based on my experience, age, and license status. I understand that driving is a privilege, not a right. I understand that I am responsible for my driving actions and that my parents will impose penalties, including removal/suspension of my driving privileges, in addition to any legal citations, etc. that I may incur if I violate this agreement or the laws of the road. I also understand that my parents will allow me greater driving privileges as I become more experienced and as I demonstrate that I am a safe and responsible driver.

Driver _____ **Date** _____

As a parent, I promise to:

- Teach you how to drive with patience and support, following our learning plan and the checklist we've created
- Be a positive role model by driving safely and following the laws myself
- Enforce the Utah Graduated Driver Licensing Laws
- Follow the established schedule of training and provide you with 40 hours of supervised driving, including 10 hours at night and in different weather conditions and on different types of roads
- Enroll you in the classes and trainings necessary for you to obtain your license
- Teach you how to maintain your vehicle and stay safe in various situations you may encounter on the road
- Pick you up if you feel unsafe, regardless of the situation or time
- Consider your requests for changes to our agreement with respect and careful consideration
- Cover financial costs of insurance, maintenance, repairs, and part of a small auto loan as needed
- Consider your safety first when agreeing to use of a vehicle

- Respect your feelings and concerns when asking you to drive others
- Be involved in your driving

Parent _____ Date _____

Parent _____ Date _____

Chapter Eighteen: Public Speaking

123. Writing a Speech

124. Practicing

125. Speaking in Public

Chapter Nineteen: Survival Skills

126. Preventing and Preparing

Survival skills begin long before you are ever in any danger with two things: prevention and preparation.

Preventing dangerous situations is always Plan A of any survival plan. Many disasters can be avoided simply by refraining from walking into them. Some situations, however, come about through no fault of your own. In these cases, it is important to be prepared for as many possible outcomes as you can. Having the correct gear can make all the difference in a survival situation.

The first step to prevent and prepare is to have a plan. Whether you are going on a hike, driving across a state, or walking around your neighborhood, you should always take time to learn about your surroundings, the expected weather, and the potential risks. This will help you understand the physical, mental, and emotional demands of your journey and give you a list of things you may need to prepare for. Some of the questions you should ask are listed below:

What areas do I plan on traveling over?

What is the road/trail like? Is it paved and well-marked or difficult to see?

Is there information online that can help me get a feel for the environment?

What types of activities do I plan on doing?

What is the terrain like?

How long should my journey take?

What will I do if my path is blocked?

What types of natural resources are available?

What types of things do I need to take with me?

What is the climate like?

What is the weather going to be like while I am there?

Is there a pattern of extreme weather events?

Are there any plants, animals, or insects that may be dangerous?

What challenges might I meet?

Is there any recent activity in the area I should know about?

What are the rules and laws there?

Am I physically ready for this journey or will it be too difficult for me?

What are the risks of illness or injury?

Who will be traveling with me?

Do I understand the layout of the area?

Where can I find help if I need it?

Will my phone/other communication devices work there?

Who are my emergency contacts?

After considering these questions, you likely have an idea of where to start when preparing for your journey. However, there are certain actions and items that are universal no matter where your adventure takes you.

First, you should keep your body in good physical shape through a proper diet and exercise. Consider your honest physical condition before embarking on any journey in relation to the demands it will put on your body. Doing something that is far too much for your body to handle will only put you in danger. Start slowly, taking easier or shorter routes at first, testing your skills in a safe manner to see where you are. Work to increase your endurance over time.

Next, ensure that you will be able to keep your body properly hydrated. Always carry water with you and consider carefully the resources available during your trip. Your body needs water more than it needs food and can only survive for a few days without it. Dehydration can leave you disoriented and confused and can weaken your body. Take sips of water throughout your journey and monitor yourself for signs of dehydration such as: headaches, dry mouth, dizziness, reduced urine production or dark urine color, flushed skin, and decreased skin elasticity. The last of these symptoms can be tested by gently pinching a piece of

skin on your lower arm between two fingers into a tent shape. If your skin does not return to normal within three seconds, you are dehydrated.

Decisions about what you wear, carry, and leave behind can greatly affect your chances of survival if difficult situations arise. For most journeys, it is a good idea to carry a backpack full of items that may be needed. Items like water, food, proper clothing, and shelter are universal to any trip. As a general rule, you should take enough of these items to help you survive longer than you plan on being gone. Other items that should be carried in multiple situations include: a mirror, whistle, emergency blanket, poncho, axe or knife, method to purify water, extra set of clothing, bandana, rope, first aid kit, solar charger, medications you may need, light source, soap or sanitizer, bug repellent, sunscreen, a method of starting a fire such as matches or lighter, cash, compass and map, and a method to communicate with others.

Depending on the type of trip and the needs of those going, other items may be considered necessities. For example, you may need to take a spare tire on a cross-country drive, a can of bear spray for a hike into a forest, or specific ropes if you are mountain climbing. If you are traveling with a small child things like formula and diapers would be on your list. If you are hunting or fishing, you will need gear for those activities. Use the questions you asked yourself as you got to know the area to carefully consider what you need to carry with you and try to be prepared for as much as possible.

Though carrying the correct gear is important, you must also take care to ensure that it is properly maintained. Before leaving, check each item in your bag for wear or breakage. Keep your gear clean, organized, and in working order. Ensure that all clothing fits properly. Check expiration dates and replace items as needed. Make sure vehicles are maintained and running well. Charge electronics, pack your items, and make sure you can safely carry them. Ensure you understand how to properly use your gear by learning the skills needed to use it safely. Equipment does you no good in an emergency situation unless you know how to use it.

With your plan, your body, your mind, and your gear prepared, there is one last step before you step out of your door: share your plan. Before you leave, tell someone who will not be accompanying you on your trip where you are going,

what you are doing there, and when you plan to return. Together, form a plan for what to do if you do not return at the correct time. This may include texting or calling to check on you, staying in touch throughout your adventure, choosing an area where you can meet, or contacting authorities to help. If your trip is a success, make contact with this person to let them know you are safe.

*Lesson Assignment: Help your family plan their next adventure. Use the questions and methods from this lesson to create a list of items, skills, and physical considerations that need to be addressed before you embark. Make a plan for your trip and ensure your family has a contact who understands it. When you are finished, show your plans to an adult and discuss changes that may need to be made. Check your gear for proper function and perform any needed repairs or updates.

127. Clothing

When taking any kind of trip outside of your home proper clothing is one of the easiest ways to prevent disaster and protect yourself. Always check to see what the expected weather is where you are going and dress appropriately. Dress in layers so that you can remove or add clothing as needed.

Ensure that you have proper shoes for the occasion, ensuring that they meet the requirements of the terrain and weather for your location. If you plan on traveling somewhere with high moisture (rain, snow, streams, etc.) treat your shoes with a water repellent or sealant. Ensure they fit properly with no sliding at the heel, and break them in before your trip.

Like shoes, socks can go a long way in protecting what will likely be your only mode of transportation: your feet. Wear cotton or wool socks and take an extra pair or two with you. This will prevent friction between your shoes and feet and protect them from moisture and blisters. Change socks throughout the day, ensuring that the ones on your feet are always dry. Lay or hang wet socks out in the sun to dry after you change them.

Protection from the weather is key in your ability to adapt and survive in dangerous situations. In sunny, hot climates, take a hat with a brim wide enough to protect you from the sun. Wear sunscreen and stay out of the sun as much as possible, especially in the heat of the day. In the cold, ensure you have long

underwear, gloves, and many layers of warm clothing. During storms, stay dry and sheltered from rain. Change your clothing often, allowing one set to dry while you wear the other. In all weather, consider the fabric of the clothing. If wet, cotton will make your body cold. Wool is heavy and warm. Some synthetic fabrics have the ability to keep you warm and dry, and are lightweight to carry.

No matter the climate or predicted weather, always carry rain protection such as rain pants and a poncho use it as needed. Rain gear should have breathable fabric, allowing your body to vent perspiration, but not allow rain or water to get in.

*Lesson Assignment: Using your plan from the previous lesson, put together the clothing that is appropriate for this trip. Discuss the specific needs presented by the activities, weather, and terrain of the area you will be visiting. Check the fit and wear on each item and ensure they are in proper working order.

128. Knots

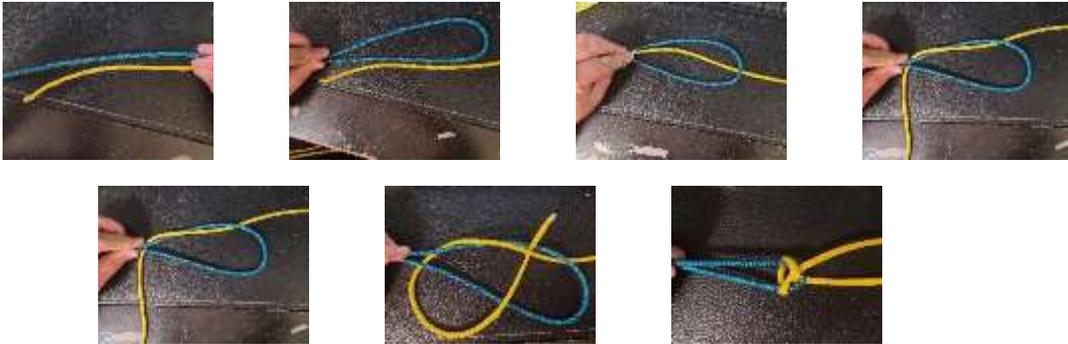
Knots are an important part of survival skills and different knots can be applied to different needs. If you have string, cord, or wire you can build shelter, warmth, traps for food, water storage, and signals to help you get rescued.

Knowing the parts of a knot can help in understanding how to tie each type. A bight is a bend anywhere in the rope. A loop is a full loop in the rope. The standing end is the main body of the rope. The working end, or tail, is the end of the rope you move to tie your knot.

Perhaps the most well-known knot is a square knot. Used to tie package and first aid bandages, it is created by taking working ends of two ropes and crossing the right over the left. Pull the right strand under the left strand and up. Then, cross both working ends again, pulling the left strand over the right. Next, pull the left strand under the right and pull up. Pull all four ends tight.



The sheet bend knot is used from tying ropes of different materials together. It is often used in the making of nets and holds the sail in place on a boat. To make this knot, place the working ends of both ropes beside each other so that they overlap in opposite directions. Then, create a bight in rope one. Slip the working end of rope two through the loop and under both layers of the top at the end of the loop. Then, pass the working end of the rope two under the area where it first crossed over the loop on rope one. Pull both ends of rope two tight.



The bowline knot is used in climbing and rescues and creates an open loop which can be secured around supplies or even a person, allowing them to be moved from location to location. It is created by making a loop near one end of the rope with at least five inches at the working end. Then, pull the working end through the loop. Pass the working end around the standing end of the rope and down through the loop. Pull the working end taut.



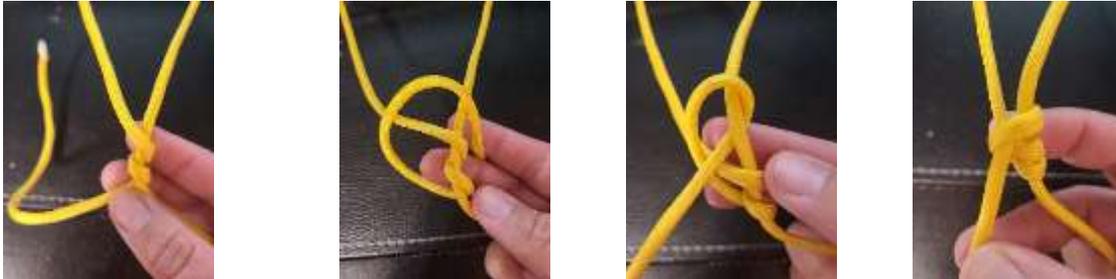
The double half hitch knot requires a support such as a tree, ring, or post and is good for securing items to a single point. This knot is useful for securing a clothesline or rainfly, hanging food from a tree, or securing a fishing line. It is created by wrapping the rope around a sturdy object, passing the working end through the loop, and then wrapping it around the standing end once again to create a second loop and pulling it tight.



The clove hitch is useful in survival situations because it can use rope, string, or cord to attach items to each other or securely hold packages closed. The clove hitch can slip and should only be used in non-critical situations. To tie a clove hitch, wrap your rope around a sturdy object twice at opposing diagonal angles, creating an X shape. Then, thread the working end under the point where the two diagonals meet and pull it tight.



A taut line hitch is used when rope will be pulled taut, or tight. Often, this knot is used to hold a tent secure or build a shelter. It can be tightened or loosened at will. First, wrap the working end around an anchor (tree, pole, etc.) and loop the working end over the standing end twice. Pass the working end over the top of the two loops and loop it a third time on the opposite end of the standing end. Pull taut. To increase tension, pull the knot away from the anchor. To loosen, pull the knot towards the anchor.



*Lesson Assignment: Practice each of the above knots on a rope or string until you have mastered them. For an animated detail of each knot see animatedknots.com

129. Shelter

Understanding how to plan for the weather and other needs of your trip can help you understand what type of shelter you will need. If you are traveling in your car, for example, a motel may be available on the side of the road. If not, it is best to stay with your car in an emergency as it can provide shelter from the weather, protect you from insects, and is easy for rescue crews to spot. Conserve your gas and battery life by using heat, lights, and chargers only when absolutely necessary.

If you are hiking, camping, or backpacking, however, shelter may be more difficult to come by. First, you will need to select a safe location to set up your shelter. Check for hidden dangers, such as dead tree limbs that may fall, washes or gullies that may experience flash flooding, high ridges and other areas where lightning is likely to strike, and game trails that may bring predators near your camp. Look for areas with firm soil, natural cover (such as a small clearing in a group of trees), and ground cover that will protect from mold and mud build up. Look for terrain with a slight slope, allowing the water to drain, especially areas that face east and south, which get more sunlight throughout the day.

Next, you will want to ensure resources you need are available. Look for available water sources, food, and natural materials you can use to build shelter and fire. Ensure that you have enough room to safely move around your fire and shelter. Avoid areas too close to water (within 50 feet will make camp colder) and those that house a high number of pests, such as insects. Make use of natural wind blocks such as groves of trees, caves, mountainsides, and hills.

Food and food waste is a temptation for hungry predators and an attractant for insects. Look for a place to hang food away from camp (at least 100 yards) so predators are not drawn to your area. Wrap and hang food high in a tree (at least 20 feet up) to deter bears and other animals from taking it. Clean dishes each time they are used and dispose of scraps in a campfire. Strain dishwater, catching any large pieces, and spread the water over a wide area at least 75 steps away from camp and water sources.

Choose a spot where privacy is protected by the layout of the land to build a bathroom. This needs to be at least 200 feet away from water sources, campsites, and trails. Bury waste at least 6-8 inches deep, marking the area with a stick to ensure it is not dug up again. Similarly, you can build a latrine, or trench one foot wide and 3-4 feet long. Add a layer of soil after each use and completely cover it when you are done using it.

When you find a location where each of these necessary resources are available, begin to build your shelter. If you have a tent, follow the instructions for putting it together, ensuring that it is properly staked to the ground and protected from the weather. If you do not have a tent, use the resources you do have. You may be able to find an unused cave or burrow. Otherwise, check your supplies for tarps, ponchos, ropes, twine, or blankets. Gather natural resources such as small logs, sticks, branches, brush, and leaves. Choose a sturdy, stationary object to support your shelter. This may be a boulder, hillside, tree, or other item. Using the larger items, build your frame, leaning them against the stationary object. This will create a shelter known as a lean-to. Secure items in place with ropes or twine or using the natural resources around you. Cover the frame with leaves, brush, or branches you've gathered to protect from weather. Place a layer of dry leaves, pine needles, or other soft materials on the floor of your shelter to make it

more comfortable and provide insulation. Keep the shelter small and simple to conserve energy and heat.



In warmer and drier climates, it may be safer to dig a shelter known as a scrape below the ground. This will help shelter you from the elements and give you a cool place to rest. First, dig a hole big enough to fit your body into out of the ground in your chosen location. This hole should be smaller than the cover (tarp, blanket, etc.) you plan to use on top. Then, build up three sides of the hole with sand. Lay your tarp over the scrape and place large rocks around three sides of it to secure it. If you can, add a six inch mound to these edges and add a second tarp or blanket to the top, secured with rocks, for added protection.

If there is snow around you, use it to build a shelter. Locate a safe, flat area with fresh snowfall. Place your backpack and supplies in the center of the area and build a snow pile around it, ensuring that the opening your backpack creates is big enough for you to fit in. Cover the mound with a tarp. Then, cover the tarp with at least 10 inches of snow and let harden for an hour. Construct a smaller mound on one side of your dome for your entrance. Burrow into the snow dome through your entrance mound. Smooth out the inside to prevent dripping.

***Lesson Assignment:** Build a lean-to of your own using natural resources around your home. If needed, visit a nearby area such as a forest, canyon, or national park and create a lean-to. If possible, spend a night in your lean-to and make adjustments as needed.

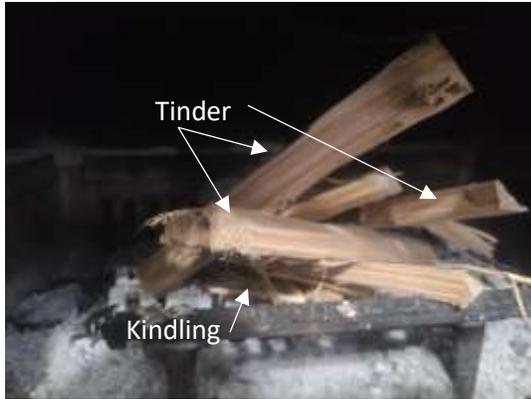
130. Starting a Fire

After you have located resources and set up your shelter, you will need a way to keep warm, see in the dark, and cook food and water. The ability to safely build and maintain a fire can greatly increase your chances of survival.

First, you will need to identify or create an area where a fire can safely burn. Search for a place that is distanced (at least 10 feet) from trees, tents, and other flammable materials, and clear of ground cover. The area for your fire should be flat and, if possible, expose the dirt below. If such an area is not available, create one in a safe area by clearing away leaves, grasses, pine needles, and other debris. If possible, gather large stones and create a ring around the cleared area. Ensure that there are a few inches between the rocks, allowing for air flow. This will help contain the fire.

Next, gather tinder, kindling, and fuel wood. Tinder is made of materials that catch fire easily and burn quickly. Dry leaves, grass, pine needles, or wood shavings are good tinder. You may have also packed tinder such as fire starters in your backpack. Kindling is any item that will catch fire but take longer to burn. Small sticks and twigs will catch the fire from the kindling and burn longer, allowing larger pieces of fuel wood (larger branches) time to catch on fire before burning out. All materials should be dry and not freshly cut. Items that are too wet or green will create a large amount of smoke.

After your supplies are gathered, shape your fire. Tinder should be placed at the bottom and in the center of the fire area. Then, kindling should be placed around it in a teepee fashion, with the bottom of each stick touching the ground around the tinder and the top leaning towards the middle. Alternatively, you can stack the tinder on top of the kindling, leaving room for air to flow around each piece. The pieces of kindling should support each other over the center of the fire area. Fuel wood will be added after the fire has gained sufficient strength.



There are several methods of lighting a fire. First, if you have a lighter or matches in your pack, use these to light the tinder. Place the tinder below the kindling and gently blow to help the flames grow if needed. Give the fire time to light the kindling. Gradually add larger items to the fire, ensuring that it has proper air flow and is not suffocated by too large a log. This process takes patience and time but, once you have a fire going, you can maintain it for a long time.

If you do not have a lighter or matches, there are several other methods for lighting the tinder and starting a fire. You may be able to create a hand drill using two sticks. The first stick should be about as thick as a pencil and two feet long. It should be smooth and one end should be carved into a blunted point. The second should be a board that is flat on both sides and less than an inch thick. Cut a shallow, circular gouge into this. Cut a v-shaped notch from the edge of the board to the edge of the circular gouge. Place the flat board on the ground in a level spot. Add bark or a thick leaf below it. Place your hands at the top of the first stick and hold it vertically with the blunted end placed in the gouge on the board. Rub your hands together, applying downward pressure and spinning the stick and creating friction. When the gouge is full of embers, transfer them into your tinder using the leaf you placed below your board. Carefully blow the embers until the tinder catches fire.

Alternatively, you can hit flint and steel or your knife and a hard rock such as quartz together to create sparks. These sparks can be caught in tinder and carefully blown on to encourage flames.

Items made of clear glass or plastic can also be used to start a fire. Allowing the sun to shine through these items and then adjusting the direction and distances of the items from tinder can create a pinpoint of sunlight that will create smoke and flames. Items such as magnifying glasses, eyeglasses, ice, water bottles, or naturally occurring glass can be used to do this.

As your fire burns, ensure that it does not spread to trees and other flammable items around you. Refrain from using an open campfire on windy days when gusts may blow embers away where they can create a wildfire. Supervise your fire whenever it is lit to ensure it stays within the fire ring.

* Lesson Assignment: Build a fire ring, gather supplies, and try different methods of starting a fire. This should only be done with adult supervision or in extreme circumstances. Discuss the safety protocols and considerations to be made. Adjust your backpack supplies as needed.

131. Water

Keeping your body hydrated is the most important and urgent part of survival. While your body can survive for weeks without proper nutrition, it will only survive a few days without water. Dehydration can lead to dizziness, disorientation, and a variety of health problems that can leave you more vulnerable to a dangerous situation. As a general rule, you should drink at least two quarts of water each day. However, water that is unclean may be host to bacteria, viruses, and parasites that can harm your body.

First, you should always carry water with you on any adventure, even if you are only planning on the trip taking a short time. Water bottles and canteens can be filled with fresh, clean water from home. This is the safest water to drink and, in an emergency, the best water to use.

However, it will only last so long. If you run out of water, the next thing to do is look for a public water source. Faucets, taps, and water fountains can be found in areas such as rest stops, national park entrances, and camp grounds. These sources are usually filtered and treated and are safer than lakes, ponds, streams, and rivers.

If you must use water from a natural, untreated source, there are a few rules to follow. First, search for water that is flowing, such as in streams or rivers.

Rainfall, dew, and snow can also be collected, though snow must be melted before it is ingested. Stagnant water, as in lakes, puddles, and ponds, is more prone to carry disease-causing organisms. Next, watch wildlife. Observe the water they drink and what they avoid. If you are in an extreme environment where water is scarce (i.e. the desert), check cacti and other plants for water by cutting open the fruits and leaves. Be sure to use safe plants, such as agaves and prickly pears, to avoid poisoning. When you've found a water source, gather the needed water and treat it using one of the following methods: boiling, filtering, chemical treatment.

The high temperature of boiled water will kill most of the harmful organisms in it. Place the water in a pot, pan, or kettle over the fire and allow it to boil for at least five minutes. Let the water cool before drinking.

Water filters can vary from handmade to store-bought. The filter in your backpack is likely store-bought and you will need to follow the directions on the packaging to ensure your water is safe to drink. These instructions may vary from adding water to a chamber and allowing it to flow through the filter using gravity to placing one end of the filter in the water source and drinking through a straw on the other end. Be sure to always carefully read the instructions before ingesting water that has been cleaned through your filter.

If your filter is not working or you don't have one, you can use supplies you have and can find around you to make water safer to drink. A water bottle hung upside down from a tree can be turned into a makeshift filter. Tie a bandanna around the bottom opening, covering it completely. Then, the following layers in order from the bottom up: sand, charcoal scraps from your fire, fine gravel, coarse gravel. Place a bucket, pan, or cup below the hanging filter. Add water to the top. Each layer will filter and clean the water and what is safe to drink will come out through the bandanna. A clean sock, funnel, or cup with a hole cut through the bottom can also be used to hold the filter materials.

Finally, water can be chemically treated. Tablets and liquid purification methods are available at many survival and emergency supply stores. These methods must be carefully used and directions on the package must be carefully followed to ensure the safety of the water. The most popular types of chemical treatment are

iodine and chlorine. Chemical treatment usually takes at least half an hour for water to be ready.

You will need enough water to drink, cook with, and clean up with. Hygiene in an emergency situation will not be as stringent as at home, but keeping wounds, hands, and dishes cleaned can prevent disease and infection. Water is the most urgent need your body has and can mean the difference between life and death in a dangerous situation.

*Lesson Assignment: Build a water bottle filter. Mix water, dirt, and bits of grass together and run it through your filter. Note how the layers help clean the water and collect the filtered water at the bottom. Consider that microorganisms such as bacteria, viruses, and some parasites are not visible without a microscope and that emergency water should only be consumed if the need is dire. Dump out the water you filtered. Then, discuss with an adult how the water that comes to your home for consumption is cleaned.

132. Food

Though your body can go up to three weeks without food, your chances of survival improve drastically if you are able to feed yourself. In a survival situation, it is important to ration the food you do have and it may be necessary to gather, hunt, or fish in order to survive.

Rationing food simply means that you eat less than normal and schedule the times and amounts you will eat. This allows small amounts of food to provide nutrition in scheduled intervals, making it last longer. Though children's bodies do not handle rationing as well, adults can cut their food intake by half of what they normally eat and do well. When rationing, consider how much food you already have, how long it may take to be rescued, and how well your body will adjust. Eat slowly and regularly to help your body adjust to the rationing.

Gathering food to survive is an ancient art. However, it can be dangerous if you don't know what you are doing. Leaves, berries, stems, and roots of certain plants are toxic and can cause extreme harm to the body. Other plants can provide your body with nutrition and medicinal properties. It is important to never eat a plant unless you are absolutely sure of its identity and safety.

Purchasing a book on edible plants in your area and studying it carefully is a great

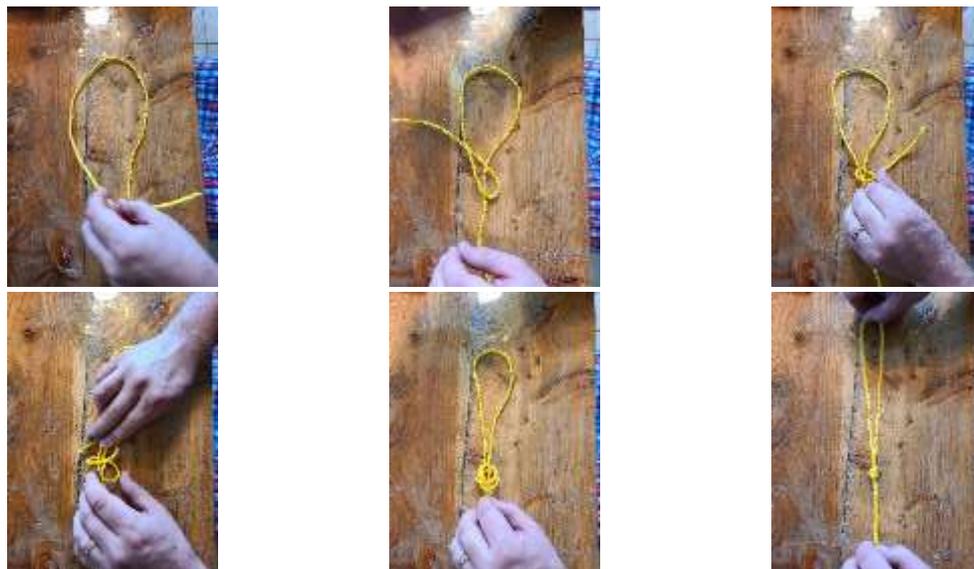
idea. You can also pack that book in your backpack before your trip. However, there are a few common edible plants that grow in several different areas. Dandelions, the yellow flowers whose seeds are often blown away by children, are edible. Every part of this plant can be used as food or boiled into a tea. Shepherd's purse, a plant with heart-shaped leaves and white flowers, cattails, long green reeds with brown corn-dog like flowers, and clovers are also edible. If you are near the ocean, green seaweed is a great food source. However, be sure to wash the salt water off the plant before eating. Never eat seaweed from freshwater sources, those can be toxic. In the desert, look for a prickly pear cactus which has broad, flat leaves and a red fruit. After removing the needles, the leaves and fruits can be eaten. Conversely, there are universal plants, such as poison ivy, poison oak, and poison sumac to avoid. These plants can cause extreme reactions to the body, even if you just touch them.

Hunting is one way to gather food to supplement what you brought with you. Hunting insects and animals can be done with traps or weapons. However, like gathering plants, some are very dangerous. Grasshopper, crickets, and earthworms are great sources of protein for your body. They can be gathered and eaten. Other insects, such as bees, some types of ants, and wasps can be eaten, but pose a risk of stings and bites if you try to gather them. Still others, like poisons spiders, some caterpillars, and any brightly colored bug, can cause illness and death if you ingest or are bitten by them.

Small animals, such as squirrels, rats, mice, birds, snakes, and turtles can provide an excellent source of fat and protein for your body. Small animals are easier to trap and usually more abundant than large game. They also have the advantage of being able to be consumed within a day or two, which prevents waste. While there are several different types of traps you can make, the snare is probably the simplest. To create a snare trap, use a wire or cord to create a noose and a few sticks. Use the poacher's knot to do this (see directions and images below). Locate an area where you know the animals you want to catch often visit. Take time to observe trails, footprints, and common behavior of the species. Locate a small tree or bush your trap can be tied to. Using about 24 inches of cord, make a loop on one end about the diameter of a pencil. If using cord, tie an overhand knot. Run the other end through the loop, creating a noose. Take one of your sticks and carve it into a point and the other into a makeshift hook. This will be the

base. The hook should have a flattened edge that allows the second stick (the hook) to hold onto it until the noose is moved. Carve a flattened hook into one end of the second stick. Hammer or push the sharp end of the base stick into the ground so that it stands vertical. Then, tie the loose end of the noose to the hooked end of the hook stick, below the hook. Tie a leader line to the opposite end. Tie the other end of the leader line to the sapling or bush. This plant should act as a source of tension for the hook. Then, fit the hook and base pieces together, lay the noose on the ground, and add your bait. When the animal moves the noose and hook, the sticks should come apart from each other, allowing the noose to tighten around the animal.

To tie a poacher's knot and create a snare, make a bright in your rope, pass the working end under the two pieces at the bottom of the loop and around it twice. Then, feed the working end through the loops you just created and pull tight. Attach the standing end to the tree branch and place the snare loop where an animal may access it.



If you have a weapon, you may be able to hunt larger game such as deer, antelope, or other native animals. However, the energy and supplies it takes to do so may be more expensive than the reward is worth. First, large game must be stalked and tracked. It can be more dangerous to injure and kill larger game and more difficult to move back to camp. You will not likely be able to eat the entirety of the meat before it begins to draw other predators and/or rot. While hunting

large game in a survival situation is a viable food source, only do so if you are experienced and have the right tools with you.

Fishing is another way to gather necessary food. If there is a pond, lake, stream, river, or ocean nearby, fishing is a low-energy method of providing yourself with protein and other vitamins and minerals. A hook can be crafted from supplies you have or a strong stick and tied to a string or cord. Bait, such as the organs of trapped or hunted animals, worms, or other insects, can be secured to the hook, which then should be placed into the water. When a fish bites to hook, it becomes trapped and you can use the string or cord to pull it out of the water. Alternatively, traps or nets can be used to catch fish, crabs, lobsters, or crawdads.

Any game you hunt, fish, or trap should be skinned and properly cleaned before it is eaten. The animal should be disease-free and not showing symptoms of illness before it is killed. Intestines should be removed and bones should be carefully avoided. Meat should always be cooked properly over a fire or camping stove. Fish should not be taken from fresh water that shows an abundance of algae, as this could lead to them being toxic.

*Lesson Assignment: Get to know some of the edible plants in your area using a reliable book as a source. Search for plants that you may use in a survival situation, asking an adult to help you positively identify them. Also take time to look for and identify any plants that may be harmful. Then, taking a hunting or fishing trip with an adult and learn those skills, too.

133. Navigation

In a survival situation, understanding where you are and how to get around is an essential skill. While you are more likely to be found by rescue crews if you stay in one spot, moving around your camp in order to gather food and supplies means that you will need to be able to find your way back. In some situations, navigation can help you find help, get to safer areas, and understand the layout and terrain around you better.

Electronic means of navigation, such as GPS trackers, are common in our everyday lives. You've likely used one in your car or on your phone to find your way to a new place. Handheld GPS devices also exist, and are great for activities such as

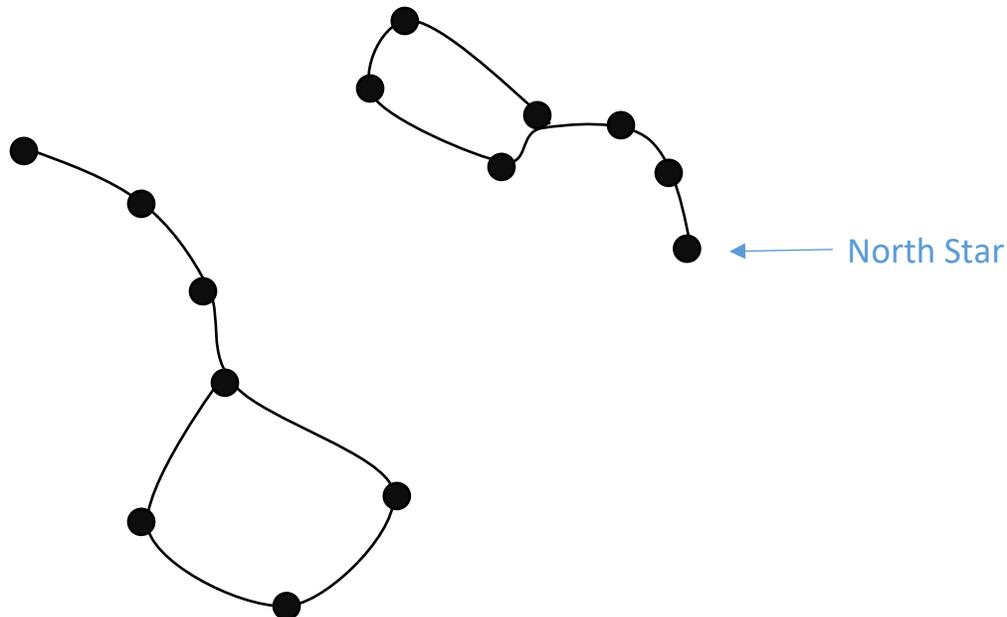
hiking, geocaching, or camping. These devices are helpful and user-friendly, but require a power source for charging to work long-term.

It is always a good idea to purchase and carry a map and compass with you on any adventure. These items can be kept in your backpack and used at any time. Maps can provide information about terrain, distances, resources, and direction. It is important to regularly study maps and understand the symbols drawn on them. You can orient your map by matching the features on the map to those you can see in real-life. For example, if a mountain is to your west and a river to the south, turn the map to reflect the same mountain and river in the same directions as you see them.

A compass is a small, circular object that has a magnetic needle floating in it. The needle is drawn to the magnetic field of the North Pole and should always point north. However, the magnetic north of your compass will rarely line up exactly with the true north of your map. The difference in these points is called declination, and, if not considered, can cause you to end up far from your original goal. Most maps have a declination number at the bottom, showing how many degrees you must adjust by to match your compass and your map. If this number is positive, magnetic north will be east of true north. If it is negative, it will be to the west. To adjust for declination, some compasses come with a key which can be inserted into the back and turned the correct amount of degrees either north or west, based on the numbers shown at the bottom of the map. If your compass does not have this feature, it will be necessary for you to manually adjust for the declination. You can do this by using your compass to find magnetic north and then turning the compass until the degrees lines match the declination value. This will show you true north. Be sure to account for the correct direction (either positive- east, or negative-west) as you do so. Recheck this each time you stop to get your bearings and adjust as needed.

During the day, the sun can be used to determine direction and time. The sun rises in the east and sets in the west. It is placed directly above your head at noon. Likewise, the moon rises in the east and sets in the west. This can help you roughly determine which direction you are traveling, though it is less precise than a compass. Finding the North Star at night can also help you determine where north is. The constellation known as the Little Dipper is opposite of the Big Dipper

in the sky and holds the North Star at the end of its handle. These constellations are near each other, facing opposite directions, and located in an area where the sky is darker, with fewer stars around it. They are shaped like the image below:



*Find a map of your area and review the scale, key, legend, and topography of the map with an adult. Discuss where to find natural resources and ways to find what you may need in a survival situation using the map. Orient the map and account for declination on your compass. Then, use the sun, moon, and or stars, to find each of the four directions.

134. Signaling

In any emergency situation, the best scenario is to find help. However, it is usually safest to stay in one place, allowing you to gather supplies and rescuers to search the area without you moving around. This does not mean you need to sit quietly until someone finds you on their own. There are several ways to signal others, giving your location and helping rescuers find you.

First, if you have a cell phone and signal, use it to call for help. Contact emergency services by calling 911 and give them as much information as you can about your condition, your supplies, and your location. Re-set your voicemail's outgoing message to indicate planned movement and location so that if your phone dies, others can still hear the message.

Another way to get attention from others is to build a smoke signal. In order to do this, gather two long, flexible sticks or branches, lay them across each other in an X-shape, and tie them together where they cross. Use rocks to prop up each end of the sticks with the X-shape in the center. This should create a dome. Next, build a rectangular platform of smaller sticks and branches by tying them together. Tie the platform to the center of the dome so that it is sitting above the ground a foot or two. Build a fire at the center of the platform, but don't light it yet. Gather wet and green vegetation near your platform. If possible, cover your platform until it is time to light it. When you see or hear rescuers, planes, or other passersby, remove the cover and light your fire. Once the fire is stable, add the wet and green vegetation to the top of the fire to create smoke.

Ground signals are useful for catching the attention of airplanes flying overhead and can be used anywhere there is a large, open space. Using materials around you that stand out from the coloring of the ground, build a large X shape or SOS. Sticks, rocks, and other materials can be dyed with berries to make them stand out better.

A flare or flare gun can be used to signal in open areas with little risk of fire. Flares provide a long-lasting, bright fire. They burn at a hot heat and must be carefully controlled. Likewise, the sound of three gunshots can signal the need for help to others. However, firearms should only be used in safe locations and circumstances by someone familiar with operating them.

A mirror can be used as a signal in an emergency situation, as well. Use the mirror to reflect light from the sun and angle it towards any other people you may see. This may be a plane, car, or people traveling on foot. Wiggle the mirror so that the reflection moves and flashes towards them. A flashlight can also be used in this manner by turning the light on and off while pointing it towards rescuers.

Lastly, a whistle is great for signaling anyone nearby. Blowing on a whistle is easier and takes less energy than yelling for help. It is also easier to be heard. Sometimes, rescue crews can be very close to a lost person and never see them. Blowing on a whistle if you see or hear others can help them find you.

*Lesson Assignment: Practice 2-3 methods of signaling for help and discuss how they could help you in different situations

135. Swimming and Crossing Water

Though water is essential for survival, too much of it can present a hazard and make a difficult situation even worse. Understanding how water moves and how to properly navigate it can save your life.

First, remember that it is always better to stay dry, especially in cold climates. Getting your clothing wet can lower your body temperature and wet supplies will not work properly. If possible, avoid getting into the water. If unavoidable, be sure to change into dry clothing as quickly as possible and hang your wet clothing in the sun to dry.

Next, check your map for signs of water or areas where water may quickly move through in the event of a storm. Keep your shelter far enough away from water that it will not affect the temperature of your shelter. Stay out of washes and other areas that are prone to flash flooding. Try to set up camp at the top of an area that slopes downward, allowing water to flow away from your shelter and fire. Water may also present hazards like insects and animals that can cause harm. Depending on the climate, look out for mosquitos, piranhas, alligators, sharks, and other dangerous animals. Bug repellent can be used to ward off mosquitos.

If you absolutely must cross water, work to find a bridge or stepping stone first. Cross using a natural or manmade bridge if possible. If there is no bridge, look for calm, shallow areas next. This will allow you to cross without undercurrents and with minimal exposure of your body to the water.

In some situations, you will need to swim in order to get to a safe location or avoid a dangerous one. When swimming, it's important to understand your own skills and strength and the unpredictability of moving water. Swimming lessons are a great way to learn methods of swimming and should be one of the skills you take in preparation for a trip. However, you must consider your surroundings and knowledge when swimming in different environments. Remember that it is difficult to predict what is under the surface of the water. Currents, rip tides, predators, and other hazards are often unseen, especially in murky water. Swimming in water with strong waves is very different than swimming in a pool. Carefully and honestly assess your own skills before making the dangerous decision to enter any water.

If you need to cross a body of water, search for the narrowest point in the river or stream. Secure your extra set of dry clothing so that it will stay dry. Keep your shoes on your feet to protect them. Use a walking stick or nearby branch to test the depth of the water. If you are in a group, cross together by linking your arms and forming a side-by-side line. The people on the ends should use walking sticks to stabilize movement and the strongest group member should stand furthest upstream. If you are alone, use a walking stick. Always walk or swim with the current rather than against it. Start upstream of where you want to end up and allow the current to carry you downstream as you move across. This will conserve energy by preventing the need to fight the current.

If you find yourself stranded in deep water far from shore, look for method that will allow you to float rather than trying to swim. Flotation devices, such as lifeboats, rafts, lifejackets, or lifeguard rings are the best tools for this. If you don't have access to these, look around you for other items that are floating and may be able to support your weight. You can also use clothing as a makeshift flotation device by tying off pants and blowing air into them or allowing a pocket of air to enter your shirt. Finally, survival floating can be used for a time to conserve energy. To do this, you first take a breath and float in a relaxed position facedown. Your face will be underwater with the back of your head near the surface. When you need another breath, scissor kick once to lift your nose and mouth above the water. Take a breath and then relax facedown again.

Other dangers to consider when spending time in the water are hypothermia, sunburn, heat exhaustion/stroke, hyperventilation, and bites or cuts from animals and other hazards.

Hypothermia can occur in cold water or weather and cools the body so much that it can't produce heat. Signs of hypothermia include blue lips and shivering, followed by fatigue and slowed heart rate. Prevent hypothermia by avoiding cold water, staying dry during cold weather, and floating rather than treading water or swimming if possible. Keep your head out of the water and leave the water as soon as possible. If you experience hypothermia, get out of the water, remove wet clothing, and wrap up in a blanket. Shelter in place and start a fire if possible. Warm the trunk of the body first, rather than the arms and legs. This allows proper blood flow to the organs.

Sunburn can be avoided with the use of sunscreen and other sun exposure prevention techniques. Staying in the shade or wearing protective clothing can help your skin avoid being burned. Cold, wet cloths can be applied to burned areas if needed.

Heat exhaustion and heat stroke are caused when the body becomes too hot and cannot cool down. Symptoms include dizziness, nausea, fatigue, cramps, headaches, heavy sweating, and a rapid pulse. If you experience heat exhaustion, lie down in a cool, shady area. Raise your feet above your head and loosen clothing. Use a cool, wet cloth on the body and sip small drinks of water. Heat stroke is the final presentation of heat exhaustion and adds symptoms like hot, red skin and disorientation. It is more severe than heat exhaustion and can lead to death. If possible, place cooling compress or ice packs under the arm pits and against the neck and groin in addition to continuing treatments for heat exhaustion.

Hyperventilation is common in survival situations, especially around water. It is caused by over breathing and can result from panic. It causes dizziness and fainting. The best way to avoid hyperventilation in water is to avoid taking on challenges that are above your skill level. If you experience hyperventilation, get out of the water. Sit down and focus on taking slow, deep breaths.

Stings, bites, cuts, and scrapes must be kept clean and bandaged to protect against infection. For jellyfish contact, soak the area in vinegar or alcohol. For stings, remove the stinger as soon as possible. For all wounds, clean with purified water and bandage with clean wrappings often. If possible, add antibacterial ointment to the affected area.

*Lesson Assignment: If you haven't already, take swimming lessons and improve your swimming skills. Practice survival floating, using flotation devices, and crossing water safely in controlled areas. Ensure that there is always adult supervision when you are around or in the water.

Some information for this lesson was taken from: Boy Scouts of America. (1998). *Merit badge series, swimming.*

Other sources for this chapter include: Bjorklund, D. (2014). *The Survival Handbook: Guide to Outdoor Adventure*. Scholastic. and Boy Scouts of America. (2016). *The boy scout handbook*.

Chapter Twenty: Weapon Use and Safety

*This is a hands-on unit. The best idea is to take a local self-defense class (or several). Additionally, videos for lessons 136-139 can be found [here](#). Use at your own discretion and only with adult supervision. These lessons are meant to be an introduction, not a full safety course. We are not experts and recommend you contact experts in each area before trying yourself. Lesson assignments for this unit simply consist of practicing what you've learned.

136. Firearms

137. Knives

138. Swords

139. Non-lethal

140. Self-defense

Understanding how to use weapons is only a small part of self-defense. The most important part, however, is understanding why and when you need to use these skills.

According to recent statistics, 1 in 4 women become victims of a sexual assault. 80% of these attacks are caused by someone the woman/girl knows well such as a friend, family member, or acquaintance. 1 in 3 of these attacks occur when the victim is between the ages of 11 and 17. In Utah, these numbers are even higher. Utah is the 11th highest ranked state in the nation for sexual assault.

The reality of the world is: evil exists. The people who are willing to accept and prepare for that are more likely to avoid an attack or know what to do if it happens. Being prepared is always better than hoping it won't happen. Attacks happen in every part of the world, in every setting, and especially where victims feel safe.

One way to prevent attacks is to avoid dangerous situations as much as possible. Observe social media rules (e.g. don't talk to anyone you don't know in real life, never meet a stranger in person, don't post or give out personal information, etc.). Many predators use the internet to befriend their victims before they ever meet.

Another is to take care of your mind. Avoid drugs and alcohol, which can alter your decision making skills and judgement. Choose who you spend your time with wisely, making friends you feel comfortable with. If someone makes you uncomfortable, try to avoid being alone with them, or avoid them altogether. Trust your instincts. Work to understand the difference between healthy and unhealthy relationships and cut out those that are not good for you. Anyone who doesn't respect your boundaries is not safe to be around, even if they are in a position of authority over you (e.g. church leader, teacher, police officer, family member). You can always say no, even if feelings are hurt. Those who really care about you will take the time to understand your feelings and respect your boundaries.

When in public, stay in groups. Try not to walk alone. If this is not possible, ensure you are in a well-lit area and have a plan of escape at all times. Avoid tight up-dos, flimsy shoes, and loose clothing. Put away distractions (e.g. cell phones) and walk with your head up. Walk with confidence and purpose. Always lock your doors on both your car and your home. Avoid using bathroom stalls, using family bathrooms when available.

No matter the situation, paying attention to the things around you can save lives. Watch everything and everyone around you. Pay attention to what people are doing. If anyone makes you feel uncomfortable, avoid them, even if it means delaying or changing your route. Find a group of strangers that you feel are safe (e.g. a mom with children) and pretend to be with them. Make eye contact with those around you, let them know you've seen them. Return to the store and ask for an escort if needed. Always know where the exits are and have a plan to get to them.

If you are approached by someone who makes you feel uncomfortable or find yourself in a situation, be assertive. Attackers like easy victims, not fighters. Those who fight back draw attention, which attackers are working to avoid. Address them directly, in a loud firm voice. Let them and others around you know you do not consent and something is very wrong. Remember that it is okay to leave a situation that makes you feel uncomfortable or ask someone you trust for help. Your safety is more important than other people's feelings.

If a situation become physical, fight back. Aim for sensitive areas such as the nose, groin, eyes, throat, and knees. Use the strongest parts of your body- your elbows and knees. Scream, yell, kick, bite, and punch. Never consent to going to a second location, even if you are afraid they will harm you. Fighting at the first location gives you a better chance of escape and of acquiring help. Work to get out of their grip using some of the skills you've learned in your self-defense class. As soon as you can, run away and find help. If the attacker has a gun, run. They aren't as likely to hit a moving target. If they ask for valuables, throw the items away from you and run as they collect them.

The most important thing to remember in any situation is: it is not your fault. The victim is never to blame. If you do become a victim, know who you can go to for help. If you feel uncomfortable, talk to someone you trust. Allow them to help you change the situation before it gets worse. They want to help keep you safe. If an attack has already occurred, report it to an adult you trust. Speaking up can help protect you and others from future attacks. Speaking up is one of the most courageous acts a victim can do. If the first adult doesn't help, continue talking to others until someone does help.

Finally, if you witness an attack be proactive in helping others. You do not have to physically intervene to make a difference. Call the police, gather others to help, report what you saw, scream to draw attention. You should never feel like you have to face an attacker on your own.

141. Surveillance Detection and Situational Awareness

Situational awareness is the biggest part of staying safe. Beyond paying attention to current situations³, however, knowing who you have around on normal days can also help. Take time to meet and get to know your neighbors. Build a support team. Know who you can trust and who you should watch out for.

Additionally, cameras, motion sensors, and alarms can be placed throughout your property and home to help you monitor your surroundings. Take the time to learn more about what your family does in this regard. Then, research how you can improve upon it.

Chapter Twenty-One: Animal Care

142. Dogs

The most popular pet in the world is dogs. Known for their loving and friendly personality, their ability to train and work, and their protective instincts, dogs are found in homes around the world.

Supplies such as a crate, food, food and water bowls, a leash, a collar, a brush and shampoo, a carrier, puppy pads, a dog bed, toys, and treats should be purchased before getting your new dog. This will help alleviate stress during your pup's transition to a new family and help you feel prepared.

When choosing a dog it's important to consider the size, intelligence level, personality, and breed of the dog. Considerations should also be made in regards to the reason your family wants a dog. Will it be simply a companion animal? Do you need a dog with special training such as a service animal or shepherding dog? Will your dog be a guard dog? Will it be around children? Before adopting a dog, research the different breeds to get an idea of which may work in your situation. Meet the puppies and spend time getting to know their disposition. Consider size requirements and time constraints for training. Be realistic with yourself about what your family can and cannot handle.

Caring for a dog is easy and straight-forward, though training takes time and consistency to get right. Puppies should not leave their mother until they are at least six to eight weeks old. At this point, they can eat solid food and begin to bond with their new family. Give your new dog a few days to adjust to their new surroundings. Offer food and water and be available to your puppy, but don't push into their comfort zone.

Though it will vary, most dogs prefer to eat two to three times a day. Wet or dry dog food is available, and many find dry food to be easiest. A 15 pound dog will need to eat 1 cup of food per day. Smaller dogs will eat less while larger dogs will need more. Clean, cool water should always be available to dogs.

Dogs should always be secured by their owners to protect them and others. This could mean a fenced-in yard, a leash, a crate, or time in the house. Dogs are pack animals and want to spend time with others, including your family. Tethering them alone outside is stressful and harmful if done too much.

Puppies should visit the veterinarian shortly after coming to their new home for a check-up. Here, the vet will give you tips, answer questions, and give your puppy the appropriate medications and vaccinations. The veterinarian can also give advice about spaying or neutering (a surgery that removes reproductive organs to prevent pregnancy) or breeding your dog. Regular visits will ensure a healthy life for your pup.

The type of training your dog undergoes will be dependent upon his or her job in your family. Most family pets need to be potty-trained and understand basic commands such as look, sit, come, heel, laydown, stay, leave it, drop it, wait, and crate/kennel. Dogs with specialized jobs (e.g. service, hunting, agility) will need specialized training. Purchase a training book or program or attend a training class specific to your needs and remember that being consistent helps you and your new puppy learn the skills and communication necessary to be successful.

Exercise is important for any healthy animal and dogs are no different. Outdoor play, walks, and time being active can help your dog's body and mind stay in shape. Dogs who are bored tend to get into trouble so keep your pup busy. Many dogs enjoy playing fetch, running, going on walks, and playing tug of war.

Grooming is breed-dependent. Some dogs do well with a regular brushing and baths. Others need more intense grooming such as haircuts and specialized products. Research the needs of your pup before bringing him/her home and be ready to properly groom or hire a professional groomer.

Cleaning up after your dog is one of the least-like but most necessary jobs of ownership. Never leave solid waste on the property of others. Carry plastic bags and clean up after your dog. In your own yard, use a rake and shovel or pooper-scooper to clean up waste. You may want to train your pup to potty in a specific area so that clean up is easy and quick.

*Lesson Assignment: Care for your family's dog or volunteer to help at an animal shelter. Spend time feeding, watering, walking, playing with, and training in basic commands.

143. Cats

Though slightly less popular than dogs, cats are a common pet and have been around humans for thousands of years. Cats are natural hunters, making them

great for rodent control. They are also easier to care for than other pets and don't require special training.

Like dogs, different breeds of cats will have different needs. Hairless breeds, for example, will need additional warmth (e.g. sweaters) while long-hair breeds will need regular grooming. It is important to research the breeds and match the correct type of cat to the needs of your family. However, there are some basic supplies you should gather before bringing your new kitten home: food, food and water bowls, break-away collar, litter and litter box, litter scoop, toys, treats, small pet carrier, scratching post or pad, and a brush and shampoo. You may also want to purchase a cat tree and/or bed.

Kittens, like puppies, should not leave their mother too early. Six to eight weeks is customary, though the longer they stay with mom, the more they are adjusted and developed before coming home with you. Kittens do best on wet food but can be transitioned to dry slowly. Kittens should be fed 40 kcal per pound while adult cats need slightly less than that. Feeding at a regular time each day helps your kitten know what to expect and lowers stress levels.

Water should always be available to your cat, though it should be placed away from food. Cats prefer cool, running water and need water bowls changed out frequently.

Likewise, toys and scratchers should always be available to your cat. This prevents destruction of items you'd rather they not play with and encourages your cat to play with their own items.

Though cats are known for having a mind of their own, many enjoy time snuggling, playing with, or being pet by their human family. They can be corrected away from undesirable behavior by short hissing noises, which communicate that they are not allowed to do that.

Although it is more difficult to contain cats, care should be taken to keep the cat inside or on your own property. Larger animals, such as dogs, can harm your cat if it wanders too far. If your cat is a hunter, it should be regularly de-wormed to prevent internal parasites and other diseases that can be passed on through prey.

Kittens should be taken to the veterinarian shortly after adoption. Here, you can ask questions and your kitten can be given the necessary shots and medications.

Regular visits will ensure the health of your cat throughout its life and help you make the best decisions for your cat.

A litter box with at least 3 inches of clean litter should be set up for your cat. Cats like privacy so it should be somewhere out of the way or covered, but still allows access. Soiled litter should be cleaned out at least once a day.

*Lesson Assignment: Care for your family's cat or volunteer to help at an animal shelter. Spend time feeding, watering, cleaning up after, and playing with a cat or kittens.

144. Small Animals

Small animals such as fish, hamsters, rabbits, guinea pigs, birds, or reptiles are popular pets, especially for young children. These animals are easy to care for, inexpensive, and require less of a time commitment.

As with all pets, it is important to research the needs of each type of animal and consider the resources your family can provide. Carefully weigh the options against what your family is comfortable with and gather necessary supplies (e.g. food, water, food and water containers, cages, bedding, toys, and specialty items) before bringing your new pet home.

Ensure your pet is healthy by feeding it the appropriate diet, taking it to regular veterinarian visits (if needed), and keeping its environment clean and comfortable.

*Lesson Assignment: Research a small animal you are interested in. Then, adopt or care for this type of animal on your own, applying what you've learned. This may mean volunteering at a shelter or pet store or pet sitting for a friend. Spend time feeding, watering, cleaning up after, and playing with this pet.

145. Chickens

Though once restricted to farms, backyard flocks of chickens are becoming popular in many areas. Chickens provide companionship, eggs, and meat to their owners and are a great, sustainable way to add to your family's self-reliance. They are easy to care for, cost little to maintain, and can be entertaining to watch.

As with any animal, before chickens, do your research. Learn about the needs, common challenges and strengths of different breeds, and time and resources required. Consider whether you want eggs, meat, or a mixture of both and look at the strengths of each breed. Consider your weather, environment, and abilities, and compare these to the weaknesses of each breed. Chickens do not do well alone and you will need to have at least two for a healthy flock, though most cities allow up to six. Check your local laws to ensure compliance.

When choosing chickens, avoid any signs of illness. Chicks, especially, are vulnerable to diseases and one cold-like sickness can spread through the entire flock. Choose chicks that are alert, have clear eyes and noses, and are eager to eat.

Chicks should be free-fed (food available all the time) a specialized chick crumble. This can be medicated (to prevent disease) or unmediated (to encourage a more organic product). Chicks also need access to cool, clean water, a heat lamp for warmth, and a safe, enclosed area to prevent predators and drafts from harming them. Bedding, such as wood shavings, can help ensure warmth.

As chicks grow, their fluffy feathers will be replaced with adult feathers. This helps the chicken better regulate their temperature and heat lamps can be removed as temperatures warm or feathers grow. You will know it's time to remove a heat lamp when chickens avoid the area under their lamp regularly.

At 6 weeks, meat breeds will be ready to process. At around five months of age, layers will begin to lay eggs. On average, a chicken will lay an egg or two per day for two years. However, the first eggs are often very small and easier to break. Nesting boxes should be provided (one box per 3 chickens) and placed in an area that gives some privacy. Feed can be changed to a layer crumble or pellet at this stage and supplemented with meal worms (for protein), oyster shell (to harden shells), and/or table scraps. Be careful to research specific foods for safety before feeding them to your chickens. Grit should be added to food to aid in digestion. Chickens don't have teeth and the grit is swallowed and helps break down the food.

Hens should be given a coop, to protect from weather, and a run, which allows them to forage and exercise. Alternatively, they may be free-range, depending on

local laws and safety. The more varied the diet of your chickens, the more flavorful and nutrient-rich the eggs and meat will be.

Eggs should be collected several times each day. This prevents broody hens and bad habits such as egg-eating. Roosters are not necessary for egg-laying, but are needed if you want to breed chicks. Collected eggs can be kept a room temperature and unwashed for two weeks or unwashed and in the refrigerator for up to three months. Washed eggs have a shorter shelf-life. Eggs should always be *Lesson Assignment: Visit a swine farm and learn about how they are cared for. Volunteer to help feed, water, clean up after, or exercise the pigs there. Alternatively, help raise a swine for your own family.

washed and cooked completely before human consumption.

The run and coop should be raked out occasionally and additional heat lamps may be needed in the winter if your climate is very cold. In the summer, water should be changed out regularly to keep it cool and shade should be provided.

Chickens roost, or sit on high branches, at night to protect themselves from predators. Your coop should include several roosts to allow chickens to comfortably sleep. The coop and run should be made of chicken wire that has holes less than one inch in diameter to prevent predators from harming them.

*Lesson Assignment: Learn about and care for a flock of chickens. Feed and water them, clean up their coop, ensure their needs are provided for, and collect and cook with their eggs. Take the time to learn about the specific breed you are caring for and provide them with a treat they like.

146. Goats/Sheep

Goats and sheep are a relatively inexpensive way to provide meat, milk, and wool for your family. Though the two species have several things in common, care and maintenance must be determined by the breed of your particular animal. Sheep, for example, will need different food and nutrients than goats. Their meat will be less sweet and their wool is very different than angora fur. Sheep are rarely used for milk production, but certain breeds of goat (e.g. Nubian) produce ample milk supplies for human consumption or use. While most breeds of sheep can be eaten, not all breeds of goat provide enough meat to be considered “meat breeds”. Carefully research your needs, resources, and goals in regards to the

species and breed you choose before purchasing goats or sheep. Remember that both species are herd animals and do better in groups of two or more. Both can be shown in competition shows if proper traits are displayed.

Goats and sheep both need access to an ample supply of fresh, clean water at all times. This can be in a bucket, water trough, or upcycled container (e.g. an old bathtub). They can live in a secure pasture with ample amounts of greens available, or in a smaller pen, if hay (a handful to a flake) and grains (two to three cups each day) are provided and exercise is allowed. Their diet can be supplemented through specie-specific grain diets, alfalfa hay, and/or certain fruits and vegetables as needed. Be sure to research what is safe for your goat/sheep before feeding. Show animals need to be fed a high-grain diet to ensure proper protein levels and walked daily on a halter.

For wool/angora production, special supplies are needed. A goat/sheep stand helps to hold the animal still on an elevated surface to allow for easier sheering. Sheers specific to your animal's hair type and batteries or access to electricity are needed. Wool/hair must be cleaned and processed before being used.

Likewise, a stand helps with milking by restraining the animal at a continent height. Milking should be done with sanitation in mind. The teat should be cleaned (supplies such as sprays and wipes are available at many feed stores), the collection bucket should be made of stainless steel, and proper protocols and safety considerations should be taken into account. Local laws and procedures can guide you. Milking should be done by firmly gripping the top of the teat between the thumb and pointer finger, adding pressure using the middle finger, then the ring finger, and finally the pinky. No downward tug is necessary and this can be painful for your animal.

Meat production will require an animal to be at least eight months old for maximum production and specific skills in butchering. This can be done by the owner or hired out to a professional service.

Goats and sheep can get bored, just as other animals can. They enjoy running, jumping, and climbing and supplies should be made available to allow for these types of activities. Be sure that your fences are high enough that your animal will not escape while playing. Toys that don't present a hazard (e.g. choking, broken legs, horns getting stuck) can be added for additional entertainment.

Goats and sheep are prey animals and should be protected from predators. Strong fences, electric wires around the perimeter, and guard animals can help protect your flock/herd. Check fences regularly for needed repairs and check your animals' welfare each day, ensuring their needs.

Goats/sheep need regular hoof trimming, which can be done with specialized hoof trimmers and basic knowledge. Hoofs should be trimmed flush with the ground and remove the whites, but not cut into the quick. Untrimmed hoofs can lead to health and mobility problems so hoofs should be checked at least once a month.

Housing or shelter should be provided for each pasture or pen. This allows your goat/sheep to escape from weather such as rain, hail, or wind. It also provides a warmer place in the winter.

Some breeds grow horns, which can lead to injuries as they play or fight and the danger of becoming stuck in a fence or house. Horns can be covered, trimmed, or removed (at a young age). Discuss this process with your veterinarian to decide what is best for your flock/herd.

Show animals will need to be groomed before a show. This may include hoof polishing, hair trimming, and/or brushing. Breed-specific considerations can be found online or in several published books.

Goats and sheep should receive regular medical care. Due to the high cost of veterinarians, many decide to do basic care at home. Animals should be regularly dewormed to remove internal parasites. This can be done with a paste taken orally. Follow the directions on the container for proper administration and timing. Tetanus vaccinations should be given to animals when they are young to prevent this disease. Breeding should be carefully planned for the well-being and safety of the mother and babies (usually twins) and male and female adults should be kept apart when not breeding. Wounds should be cleaned and wrapped until healed and pink eye should be treated with a cream applied to the eyes several times a day.

Herds/flocks in pastures usually don't need to be cleaned up after. However, pastures should be rotated regularly (move the animals from one area to another) to allow for parasites to die and greens to grow. Pens should be raked out daily

and steps should be taken to ensure dry ground. House and toys should be inspected regularly for safety and discarded or cleaned as needed.

*Lesson Assignment: Learn about a breed of sheep and a breed of goats. Make a list of supplies needed to care for each and a daily, weekly, and monthly schedule of care. If possible, care for a few sheep/goats for a time.

147. Swine

One of the most efficient supplies of meat in the world is swine, or pigs. With a pound of meat being created from every three pounds of feed, pigs are often less expensive and more productive for the money put in. Swine can be processed at six months, making them a quick way to provide meat to your family. They are also highly intelligent, friendly, and relatively low maintenance.

Swine breeds vary and will display breed-specific characteristics. Though most swine are bred for meat production, the flavor, quality, and amounts of specific cuts will be different for each breed. The Yorkshire is the most commonly bred swine in the U.S., and many pigs are a cross of Yorkshire and another breed. Yorkshires grow quickly and produce a visually appealing product.

Swine need access to cool, clean water constantly. This can be done with a trough, bucket, or waterer made for livestock that provides water on-demand. Hog-nipples attach directly to a water source and allow for the pig to run water by biting down on it. As pigs cannot sweat, they cool themselves by rolling in cold mud. Pigs often make their own mud puddle by dumping or running water provided. They also enjoy being sprayed down with a hose on hot days. Without a way to cool themselves, pigs can easily suffer from heat exhaustion.

Pigs should be fed six to eight pounds per day. This could be in the form of table scraps (slop) or grains. Avoid high-sugar items, starches, meats, and dairy. Seeds and pits should be removed as they can be toxic. Corn-based feeds are most popular, though soybean is often added for protein.

Swine are most often kept in pens individually or in small, friendly groups. This cuts down on fighting and allows for better control of feed consumption. Pens should be cleaned daily and checked for safety. Gates should be secured with a latch and clip or lock. Pigs are intelligent and can often open a simple latch.

Shelter should be provided from weather (e.g. a shade) and a small house (e.g. doghouse or stacked straw bales can provide protection from wind and cold.

Small piglets may need a heat lamp and loose straw in the winter to keep warm and optimize growth.

Intelligent pigs often become bored and search for entertainment. They enjoy communicating with other animals, even not their own species. They can be given a ball or other appropriate toys to avoid boredom. They can also be trained to walk (using a cane). This gives them an opportunity to get out of their pen and experience new things as well as helps to build a more muscular and less fat meat. Pigs can be trained to do tricks, play hide and seek, and even aid humans.

Piglets are especially susceptible to disease and should be vaccinated at a young age. Consult with your veterinarian for proper medications, administration, and doses. Swine should also be dewormed regularly. In hotter climates, swine should be carefully watched for dehydration, which can be treated with electrolytes and/or aloe juice. As with all animals raised for meat, withdraw limits for medications should be considered before administration to ensure the meat is safe for human consumption.

*Lesson Assignment: Visit a swine farm and learn about how they are cared for. Volunteer to help feed, water, clean up after, or exercise the pigs there. Alternatively, help raise a swine for your own family.

148. Cattle

One of the largest and most popular sources of protein and dairy are cattle. However, the needs of even a single head are also large. One cow requires two acres of pasture, shelter, and stored hay and feed (2 to 3 pounds of hay per day per 100 pounds of body weight in winter). Hay should be stored in a cool, dry place to prevent rot and mold. As with other animals, pastures must be rotated to prevent disease and provide proper nutrition. Cattle need access to clean, fresh water and salt (often provided in the form of salt blocks), as well. In order to produce milk, a cow must be bred and calf regularly.

If you are raising a cow for milking purposes, you will need specialized equipment such as a milking stall, stainless steel bucket, and sanitation items. Sloped concrete floors in the milking area are best, as they are easily cleaned. It is

easiest to milk while cows eat grains and hays from a trough. Calves should be separated from their mother after a few days and placed in a pen with straw bedding. They can be taught to drink milk from a bucket and raised or sold.

If raising cattle for beef, feed and water requirements are slightly less than to produce milk and specialized milking equipment is not required. Many beef cattle are raised on pasture during the spring, summer, and fall, and given hay during the winter months. High-protein grains can be fed for the last few months before butchering to give the meat a sweeter, more marbled finished. Most farmers harvest animals in the fall, while cattle are at their largest size after a summer of plentiful food. Cattle are usually butchered between 32 and 42 months of age.

Fencing should be installed before cattle arrive and should be at least four feet tall. Barbed wire, wooden, and electric fences are the most commonly used types of fencing. Choice of materials often is dependent upon your resources, but all fencing must cover areas low to the ground, as cattle are known for rolling out of their pastures if fences are too high. Cattle should have access to a three-sided building or shed for shelter from the weather. Dairy cows and calves, especially, don't do well in drafty, cold areas.

There are several different breeds of cattle and each have their own strengths and weaknesses. Some are better milk producers while others grow larger and produce more meat. Do your research before choosing which is best for your family and consider your time, skills, and needs. As cattle are herd animals, it is easier to raise more than one at a time. Cattle should have clear eyes and noses, healthy coats, and an absence of wounds or injuries.

Cattle are prone to certain diseases and must be vaccinated and dewormed regularly to prevent loss of the animal. Your veterinarian can guide you in proper prevention and treatment and offer advice on care. A cattle squeeze can help position and restrain the animal, making care easier and safer.

Milking areas and stalls should be cleaned regularly. Pastures are rarely cleaned as waste fertilizes the plants, returning nutrients to the soil. In the winter, a small amount of feces can help keep cattle warm in their shelters and should not be removed completely, especially in colder areas.

*Lesson Assignment: Visit a farm that raises cattle and learn about how they are cared for. Volunteer to help feed, water, or clean up after, the cattle. If possible, practice milking a dairy cow. Then, learn research to find a dairy and a meat breed and point out their differences to an adult.

149. Horses

Another common farm animal is the horse. Horses have traditionally been used on farms for transportation, pulling farm equipment, and pleasure riding. Mules, ponies, and donkeys have also been used in these capacities. While it was once common for farms to have horses, tractors are cheaper, more efficient, and more easily maintained and have replaced horses in many of their jobs. However, horses are often still kept by farmers for riding, competition, and companionship, as they can bond well with humans.

Horses are herd animals and prefer to be around other horses. It is healthiest to have at least a pair. When choosing a horse, look for clear eyes, a clear nose, and absence of injuries. Trained horses are more expensive, but easier to handle. Watch as a horse is haltered, saddled, and walked for signs of restlessness or rebellion. Pay attention to how the horse reacts to the breeder and other horses. If you are buying a horse for a specific job, ask to see the animal perform the job before purchase. The head should be held high, with relaxed ears (upright and in a forward position). Legs should produce straight lines from the back and sides, with the hoof almost directly below the bottom of the leg. The gait should be even and predictable with no limp or unevenness. The animals should not avoid a certain leg or becoming winded during work. Older horses are often calmer and easier to manage, often leading them to be used for lessons and competitions for children.

Horses can live up to thirty years if well cared for. They require a grazing pasture, a walking area, a stable, and an area where feed and hay can safely be stored. Fencing for horses is often electric, allowing for a visual and physical reminder of their boundaries and preventing other animals from accessing your herd. Shelter should be provided in outdoor areas (e.g. a three-sided shed) to protect from weather. The stable area should be clean and dry and provide nightly shelter with at least 170 square feet per animal. Hay, grain, and water should be provided in this area each night and bedding (such as straw) should cover the floor. The

grazing area, which can double as the walking area, should be at least one and a half acres per horse to allow for adequate nutrition and exercise. Debris and waste should regularly be removed from all areas your horse will be in. Pasture should be diverse in the plants offered and provide at least 1% of the horse's body weight in food per day. Commercial feed can also be purchased to supplement pasture grazing. Horses with a high workload, who are pregnant, suffering with health issues, or very old may require more supplementation than healthy, low workload horses. Clean, fresh water should be available to the animal at all times.

Horses require specialized items in order to provide proper care. Halters and lead ropes allow for horses to be walked easily, allowing the owner to control movement. A variety of brushes, hoof picks, and specialized shampoos allow for proper grooming. Horses should be brushed before they are saddled and hoofs should be cleaned regularly. Hoofs also need to be trimmed by a professional farrier regularly to ensure safety and soundness. Reins, a saddle blanket, and a saddle are often used for riding. These can vary greatly by personal preference, style, and training of the horse and should be researched carefully. Items such as a riding helmet or spurs can also be added to the riding experience. If your horse will be doing a specific type of work, you will need the supplies for that.

Horses need companionship and can become depressed if left alone. They bond with animals and people around them. Your horse should see you each day and spend a good amount of time with you to enhance that bond. Animals who trust their owners are calmer, healthier, and more willing to work. Always approach your horse from its left side and never stand or walk behind a horse. Due to limited vision, this allows your horse to see you and avoid being startled, protecting the animal and you. Be patient with your horse as you learn to trust each other and build your bond. Consider your horse's emotions and feelings and how it may react to a new or frightful situation. Patience and a mutual understanding of comfort levels can help create a bond that will last throughout your horse's life.

Horses can sometimes require specific medical care. Like other animals, they should be dewormed regularly, which can be done using tubed medications

available at most feed stores. Injuries should be cleaned, treated, and kept wrapped. It is a good idea to have a horse first aid kit on hand to help with smaller injuries. Iodine, cotton balls, gauze, and rolls of wound wrap are common supplies needed. Pink eye is especially prevalent during the summer, when flies gather and spread the disease. This can be treated by applying a cream to the eyes. It can be prevented by using fly masks, traps, and sprays on and around your horse. Your veterinarian can advise you on proper diet, vaccination, and care for serious illness or large wounds.

*Lesson Assignment: Take horseback riding lessons and learn how to properly interact with, groom, clean up after, feed and water, and ride a horse. Pay special attention to safety rules and work to create a bond of trust with your horse.

Chapter Twenty-Two: Butchering

150. Chickens

151. Swine

153. Cattle

154. Goats/Sheep

155. Wild Game

Chapter Twenty-Three: Medical

156. Common Medications

When caring for yourself it is essential that you have a basic understanding of medications including the purpose and correct dosage of each one, specific timing guidelines, side effects, and interactions that may occur. Medications chemically affect your body and brain, resulting in different reactions based on the chemical makeup of the medication itself. This may cause symptoms to lessen, new side effects to occur, and different sensors within your body to act differently than normal. It's important to read all directions on the label carefully, consult with your doctor, and discuss any questions with your pharmacist before starting or stopping any new medications. Information found online may also be helpful if sources are credible. Children should consult with a trusted adult before taking any medications.

Medications may be prescription (requiring a pharmacy and recommendation from your doctor) or over the counter (OTC, bought directly from a store with no paperwork). Though medications will vary based on the type of illness and the individual patient, some are fairly common. While brand may vary, most medications fall under categories that share a common purpose.

Anti-inflammatory: These medications are a type of pain relief that fights against inflammation (swelling) throughout the body. Motrin and ibuprofen are common types of anti-inflammatory medications. Side effects include stomach pain, stomach upset, headaches, and changes in blood pressure. Long-term use of these medications can cause bleeding in the digestive system, making them safe only for short-term usage. Dosage is according to weight and it is usually recommended that these medications be taken with food. Anti-inflammatories are commonly in liquid form for children and capsules for adults.

Antacids: These medications usually come in the form of a chalky tablet taken orally. They are used to treat hyperacidity (too much stomach acid, which can cause a burning sensation in the stomach, esophagus, and throat). These medications are usually taken after a meal or when symptoms occur. Side effects include various digestive issues and an increase in symptoms if used long-term.

Antibiotics: Usually given by prescription, these medications treat bacterial infections. While the type of antibiotic can vary depending on illness and allergies, penicillin is a common one. Antibiotics can be taken orally or injected through an IV in extreme cases. Treatment usually lasts two weeks. Side effects can include stomach pain and nausea, along with other digestive issues. Long-term or incorrect use can create antibiotic resistant bacteria (bacteria that is strong enough not to be killed by the medication), so it is important to consult with a doctor when taking antibiotics. Antibiotics may also be present in topical creams, such as Neosporin, which is placed on an open cut or wound to prevent infection.

Anti-diarrheal- Used to treat diarrhea these medications are usually OTC and easily obtained. They may cause stomach pain, bloating, or constipation. Dosage is listed on the labels and should be followed precisely.

Anti-emetics: Treatment of extreme nausea and vomiting is done through anti-emetics. Dramamine is a common medication used to treat motion sickness and can be bought OTC. For more extreme cases, prescriptions may be needed. Side effects include dryness of mouth, digestive issues, and dizziness.

Anti-fungal: Usually administered in a topical cream or spray, these medications can be OTC or prescription and are used to fight fungal infections (e.g. Athlete's Foot). However, they may also be administered in an oral pill form. Side effects may include rash, itchiness, and swelling.

Anti-histamine: These medications (e.g. Allegra, Benadryl, Claritin) are given orally and often available OTC. They relieve symptoms of mild allergies. Side effects can include dryness of mouth, drowsiness, and nausea. Attention to dosage and timing should be precise as it can vary between brands. Extreme allergies (e.g. hives, rash, anaphylactic shock) should be treated as soon as possible by a medical professional.

Anti-pyretic: These medications are used to reduce a fever. Tylenol, Motrin, and Ibuprofen treat fever in addition to pain. Side effects include stomach pain, nausea, and loss of appetite. Fever is often a symptom of a larger illness or problem. If a fever persists more than a couple of days, is above 102°, or is not affected by OTC medications, consult a medical professional.

Anti-tussive: Commonly known as cough medicine, these medications suppress coughing. Available OTC, they may come in liquid form or in the form of a hard lozenge. Take according to instructions on the package and consult a doctor if coughing makes it difficult to breathe, causes dizziness, or is persistent.

Anti-viral: Usually given to help treat or prevent a viral infection, these medications are usually given by prescription and target a specific virus (e.g. flu, HIV, AIDS). These medications lessen the symptoms of a viral infection. Side effects include stomach upset, headache, and fatigue.

Contraceptives: These medications are used to prevent pregnancy and can be delivered in pill form, in a patch, or through a device inserted into the body. Available through prescription, contraceptives usually contain a mixture of synthetic hormones which change a woman's natural reproductive cycle. Side effects can include headache, nausea, menstrual irregularities, weight gain, and mood swings.

Decongestants: This medication reduces nasal (nose) congestion (stuffiness). Usually given OTC, dosage for each type is found on the bottle's label. Side effects can include dryness of mouth and insomnia.

Electrolytes: The body needs a balance of liquid and electrolytes in order to function correctly. Usually, your body balances these naturally through the food and liquids you take in. However, during illness you may lose these necessary elements through vomiting, diarrhea, excessive sweating, or appetite loss. Electrolytes can be taken in several forms (e.g. popsicles, drinks, etc.) and should only be used according to instructions on the package. The goal is to maintain a balance within the body, not to overdo it. Side effects can include rapid heartbeat, swelling of feet, weakness, and muscle twitching.

Laxatives: These medications are used to treat constipation (hard stools) and promote bowel movements (pooping). As an OTC drug, laxatives can be purchased at most stores and taken according to instructions on the label. Side effects can include stomach pain, cramping, diarrhea, and nausea.

Vaccines: Vaccines are medications given to help the body build up an immune response to a specific illness (bacterial or viral). Vaccines come in oral liquid and pill form. Others are given through injection. Some vaccines include a live,

weakened version of the illness that is introduced into your body. Your immune system then learns how to fight off infection without suffering the more extreme symptoms. Others include a deadened version of the illness. While vaccines have saved thousands from suffering and death, individuals should consider personal circumstances (e.g. allergies, risk levels, possible side effects) and the advice of their own doctor before receiving a vaccination. The most common side effect of a vaccine is pain at the injection site, which lasts only a few days.

Lesson Assignment: With an adult, go through your family medicine cabinet. Classify medications found there into the categories above and explain a situation where each may be needed. If you have medications that do not fall into these common categories, discuss with an adult what they treat.

157. Home and Herbal Treatments

Though there are exceptions, most mild and seasonal illnesses can be treated at home with rest, increased intake of fluids, and OTC medications to manage symptoms. This includes a cold, the flu, seasonal allergies, and stomach upset. Your body knows how to fight against infections, though it may take some time for the immune system to figure it out. Of course, you should always feel comfortable reaching out to your primary care physician if you have any questions or if symptoms become too severe. You should also visit your doctor's office at least once a year (and your dentist twice a year) for regular checkups.

Below are some common home treatments that can be implemented with basic supplies you can purchase at most stores. It is a good idea to have these on-hand at all times because you likely will not want to go to a store when you're feeling ill.

Herbal Teas: Colds, sore throats, cough, congestion, stomach issues, insomnia. Herbal teas can be purchased as loose-leaves or in tea bags. Different ingredients treat different illnesses. Lemon, for example, can boost your immune system by supplying Vitamin C. Taking the time to try different herbal teas and learn more about which types work for you is a smart investment.

Marshmallows: Cough and sore throat. Marshmallows can be consumed in small amounts to soothe a sore throat or cough. The marshmallow coats the throat, allowing a brief break from the pain of a cold.

Ginger: Pain and nausea. Ginger is a plant and the root is commonly used as a spice or addition to food, drinks, and teas. Ginger can be bought whole at most supermarkets, peeled, and grated to add to warm water for tea or to your food. You can also purchase ginger tea packets, ginger chews, ginger beer/soda (look for those with real ginger, not just ginger flavor), or ground ginger.

Lavender: Migraines and anxiety. Lavender is a flowering plant which has a calming effect. It can be grown in your own garden, purchased as a tea, added to a diffuser as an oil, or added to a bath to help relieve symptoms. Care should be taken to avoid using too much lavender, especially lavender oils, as it can cause adverse side effects in excess.

Mint: Wintergreen mint can help with treatment of pain as it contains a numbing chemical. Peppermint can help with digestive issues such as nausea and irritable bowel syndrome. Both of these mints are found in plant form (with the leaves being consumed), as teas, and as oils.

Oatmeal: Dry skin and itchiness. Adding oatmeal to a warm bath can aid in easing aches and pains, moisturizing skin, and relieving itchiness (e.g. Chickenpox).

Aloe Vera: Sunburn and other minor burns. Aloe Vera is a type of plant. Its leaves are filled with a green substance that can be used to soothe burns. Simply break a leaf off the plant, cut it in half, and apply the substance inside to the burn. Alternatively, aloe vera can be purchased at most stores. Aloe vera juice can also be used to treat dehydration. For major burns a doctor should be consulted.

Honey: Honey has been used for thousands of years to treat several different ailments. If consumed regularly, local honey can help build an immunity to allergies. Honey can be placed on bites and stings to lessen pain. It can also be added to warm teas and drinks to treat sore throats, coughs, and other symptoms of a cold or the flu. Honey can be used as a moisturizer for dry skin, treat digestive symptoms, and be placed on burns. Honey is also a natural sweetener and much healthier for your body than sugar, aiding in giving your body energy without harming it.

Heat Packs: Applying a heat pack (or even taking a warm bath) can soothe sore muscles, relax the mind and body, and provide relief from minor pain. Menstrual cramps, a buildup of lactic acid, muscle fatigue, and exhaustion can all benefit from the application of heat. Heat packs may come in the form of electric heat pads, chemical packs that activate when shaken, or microwavable rice packets. Adding heat to an area increases blood flow and can aid in healing.

Ice Packs: Bruises, pain, and inflammation. Ice packs (bags of ice, chemical gel packs, bags of frozen peas, etc.) can be used to ease pain after an injury, especially when used in conjunction with elevation of the injured area. Ice packs should be applied when swelling is a concern, as the cold reduces blood flow to the area and prevents inflammation.

Humidifier: Dry skin, congestion, cough, nose bleeds. A humidifier creates water vapor and blows it into the air of your home. This increase in water vapor can

help with symptoms of extremely dry air, colds, and nose bleeds by allowing your body to absorb more moisture. The water vapor can also increase the temperature of your room slightly, making humidifiers common in cold, dry winter months.

Cranberry Juice/Supplements: Cranberry can help prevent or treat urinary tract infections. Juice should be low in sugar. A glass can be taken each morning at breakfast. UTI's should also be checked by a doctor to prevent damage to the urinary system.

Yogurt: Yeast infections. Plain yogurt with no or little sugar can be eaten to prevent or treat yeast infections. The bacteria in the yogurt prevents a buildup of yeast, helping to reduce symptoms and balance the body's chemistry. As antibiotics can cause yeast infections, it's a good idea to consume yogurt while taking them. Apple cider vinegar baths (1/4 – 1/3 cup per bathtub) are also helpful in relieving symptoms.

Turmeric/Magnesium: Pain and inflammation. Supplemental turmeric or magnesium can aid in reducing pain and inflammation when used correctly. Special attention should be given to dosage and interactions with other medications, supplements, and diet.

As with chemical medications, herbal treatments consist of different mixtures and can cause side effects. Interactions between supplements, medications, diet, and alcohol can occur. Consult a medical provider before taking any herbal supplements to ensure that they are being used safely.

Lesson Assignment: Identify a minor symptom you are suffering from today (e.g. sore muscles, fatigue, dry skin, stuffy nose, bee sting) and consult with an adult to identify a home remedy you can safely try. Try the remedy and note the benefits (or lack thereof) of this remedy.

158. First Aid

Though most people are cautious and aware of their health needs, emergencies can occur. In this case, it often takes time to reach a healthcare provider or ambulance. Knowing basic first aid skills, however, can help prepare you to assist others who have been injured or are experiencing a medical emergency.

Lesson Assignment: See next lesson

159. CPR

Cardiopulmonary (heart and lung) Resuscitation, or CPR, is a lifesaving procedure in which a person can assist another's body in circulating blood and oxygen throughout the body in the event of cardiac arrest (heart stops beating). CPR is an important skill that can aid in saving a life until medical professionals can arrive.

Lesson Assignment: Sign up for and complete a Red Cross First Aid and CPR class [here](#). Practice the skills you learn often.

160. How to make a Doctor's Appointment

No matter how careful you are or how healthy your diet is, you will eventually become ill or get injured. It's a part of life. If the illness or injury is severe enough, you may need to make an appointment with your primary care physician (doctor). You will also need regular check-up appointments (usually once a year). Making an appointment can be intimidating, but understanding the process and being prepared can help make it an easy task.

The first step of making a doctor's appointment is choosing a doctor. When you are young, your parents likely take on this task. As you grow, however, you will need to research, meet with, and learn about different doctors. Different doctors treat different parts of the body and sometimes specialists are needed. Most commonly, a primary care physician (the doctor who does your checkups) can help with minor or common illnesses and injuries. If a specialist is required, your PCP may be able to recommend one to you. Online searches can help you gather reviews, learn more about each specialty, and determine the appropriate doctor. However, it is acceptable to switch doctors after your first visit if you are uncomfortable for any reason with your choice. Having a knowledgeable, professional, trustworthy doctor can make medical decisions easier. As a general rule, doctors should be humble and willing to admit when they don't know something. These doctors usually are willing to help you find information specific to your own needs and concerns. Doctors should also be able to provide current peer-reviewed studies and recommendations supporting their treatments when asked.

The next step is gathering the supplies you need to make an appointment. Some offices have online scheduling while others require a phone call. You will need your calendar, your insurance card, and your contact information (address and phone number).

Place the call and let the receptionist know you need to make an appointment. Likely, you will be asked why you want to be seen. Simply give a summary of your symptoms, concerns, or need for a check-up. You will need to provide your full name and birthdate. You will also be asked if you have visited that doctor before. An appointment date and time will be offered. Check your calendar to ensure you can make it. It's ok to ask for an alternative appointment if that time or date

does not work. You may be asked for insurance information, which can be found on your insurance card. In some cases, this information may not be needed until you arrive at the office.

Next, arrive at your appointment a few minutes early. Bring your insurance card, method of payment (card or cash), and medical history information. Check in with the receptionist by stating that you have an appointment with (doctor's name). You will probably be handed paperwork asking for your details, an emergency contact, your medical history, and your symptoms. You also will be given consent forms. Read each paper carefully and answer honestly. Return the paperwork to the receptionist or nurse when you are finished.

Throughout your appointment, be honest with your doctor. Discuss your concerns and ask any questions you may have. Though doctors are often busy, taking time to understand your own health helps you better care for yourself.

Lesson Assignment: Make a doctor's appointment for yourself with the help of an adult. Then, check in and review your paperwork upon arrival. Discuss any of your own concerns or questions with your doctor.

161. Going to the ER/Urgent Care

In extreme cases, your PCP or specialist may not be the best choice for treatment. Their office may be closed or your injury or illness may be too severe to wait for an appointment. In this case, you have two choices: urgent care or the emergency room.

Urgent care is a level of treatment that falls between your doctor's office and the emergency room. It can be used without an appointment for illnesses and injuries that are not significant to require care at the hospital, but should be looked at immediately. Urgent care is often less expensive than a trip to the emergency room and can be used for non-life threatening situations.

Urgent care can be used when your doctor is unavailable for necessary treatment that cannot wait. Sprains, fractures, dehydration, illness that needs a prescription (e.g. flu, high fever, etc.), and lacerations are commonly treated at urgent care. Most urgent care facilities are trained and equipped to deal with these issues and will not turn you away. If your injury or illness is too severe, they can help you get stabilized and pointed in the direction of someone who can help.

Urgent care operates on a walk-in basis. There is no need to make an appointment, though it is a good idea to research urgent cares near you to determine their reputation before you need treatment. When visiting urgent care, simply greet the receptionist the way you would at a doctor's appointment, giving your birthdate, name, and reason for your visit. Paperwork will be done while there so bring your contact information, medical history, and insurance cards with you.

In some cases, however, your condition may be too fragile or advanced for urgent care. For chest pain, difficulty breathing, severe abdominal pain, severe bleeding or trauma, poisoning or overdoses, seizures or loss of consciousness, sudden loss of vision or blurred vision, sudden weakness or tingling, severe headache, or confusion, you should visit the emergency room. The ER has specialists and equipment that your doctor's office and urgent care don't and can treat severe conditions with more success. Minor conditions can also be taken care of at the ER, especially if your doctor's office and urgent care are closed, but cost more.

Emergency rooms are also walk-in clinics so you do not need to make an appointment. For most conditions, you should not drive yourself to the ER, but get a family member or friend to drive you. You can also call an ambulance if needed. Check-in follows the same process as doctor's offices and urgent care. Take your medical history, contact information, and insurance cards.

After your appointment, you may need to follow-up with your PCP or specialist. This can help ensure treatment is going well and milestones are met. It can also prevent or lessen the effects if something (e.g. infection, re-injury) goes wrong. Though you will likely pay a co-payment upon check-in, the medical facility will send all the information needed to your insurance and will bill you after your claim is processed. Your co-payment usually counts towards your bill.

Lesson Assignment: With an adult, research local urgent cares and emergency rooms. Find one you are comfortable with and record the name, address, and phone number in a visible place in your home in case it is ever needed. List other emergency contacts (e.g. fire station, ambulance, police) as well.

162. Medical Record Keeping

In addition to obtaining proper medical care, it's important to keep record of the care you receive and the injuries, illnesses, and treatment you receive. Each doctor and specialist will ask you about allergies, previous surgeries, previous hospitalizations, chronic medical conditions, and serious injuries. They will also need to know what medications you have taken, what has worked, and what hasn't. This helps the doctor consider the body's patterns and reactions to treatment, leading to a better chance for successful treatment of current conditions. It will also prevent interactions between medications and repetitious treatments.

To begin keeping medical records, simply use a notebook to record all major health concerns, surgeries, and medications. Start with allergies and reactions to medications, conditions at birth, and chronic conditions. Then include steps taken to treat each concern, dates of hospitalizations, and dates and dosages of medications and supplements. You may want to note drastic changes in fitness or diet, too. Record any instructions from doctors or notes from your own observations. Write down questions you may have. Take your notebook with you to future appointments and record significant events.

It may also be helpful to request your medical records from the facilities in which you have been treated. Tests, images, results, and doctor's notes can be printed or copied from your record there and included in your notebook.

Lesson Assignment: Ask your parents about medical records they have kept of you. Together, work to create a complete medical history notebook for your life. As you visit doctors and make healthcare decisions, take your own notes going forward.

Chapter Twenty-Four: Student Success

163. What is Student Success?

As you enter higher grades and, eventually, college student success will be a term you hear quite often. In fact, many high schools and colleges require a class titled Student Success as a graduation condition. So, what is student success?

When you began school in preschool or kindergarten, the adults around you were responsible for the majority of your learning. While you did things like filling out worksheets, memorizing sight words, and learning to share, your parents and teachers were there to make flashcards, copy worksheets, and guide you through real-life experiences as they happened. Your parents were responsible for most of the daily tasks and your financial, social, emotional, and physical health. You were a successful student if you did the simple tasks assigned to you with help.

As you grew, however, the adults became less involved and your learning started to become your responsibility more and more. You worked hard for grades, doing your own research and writing your own papers. You learned from teachers and then completed your assignments on your own. You managed your time and organized your supplies.

By middle school, your parents likely still provided for your financial needs, cooked your meals, cleaned your home and clothing, and were your main method of transportation. Parents and teachers taught lessons, answered questions, and guided you through academic work when you needed help, but most of the work was put on you as you learned to write essays, do algebra, calculate physics equations, and participate in social clubs.

As you reached high school, you likely knew how to cook basic meals, how to do your own laundry and clean your own room, how to you drive yourself, and may have gotten a job. While you added to your responsibilities, your parents were the main source of income and things you need. They probably still carried the majority of household chores, monitored your mental and emotional health, and guided you towards academic and social activities they thought would benefit you.

Additionally, as you grew you become more in control of things outside of school that can affect your learning such as organization, critical thinking, social

interactions, emotional well-being, how you use the resources you have, and how you communicate with others. You might have begun to disagree with your parents, forming your own ideas and methods for doing things. You became more independent and friendships and community became more important. Each of these things factors into your success as a student and, by the time you reach college they will be fully your responsibility.

A successful student has good grades, is able to research and learn about topics, has a healthy social life, cares for their physical and mental health, is organized with their supplies and time, can communicate efficiently, and knows how to access and use the resources available to them. While this seems like a lot of responsibility for a young adult, it's important to remember that the most important aspect of success is balance. While each of these things is critical, they may vary in order of priority over time. For example, during finals week you may not clean your room/home but focus on study and test-taking, knowing you can catch up on organization afterwards. During the holidays, you may neglect school work for a time to visit with friends and family. When you are sick, you may take time to rest and heal rather than engaging in social activities or attending in-person activities. You should always devote 100% of your attention and resources to being successful. However, the way in which you break up that 100% will vary based on your personal needs. A successful person learns to listen to the demands from school, work, friends, family, home, and their own body and mind and prioritize what need is most urgent or important. As you grow and take on more responsibilities, this balancing act becomes more difficult.

Freshman year in college, or the first year away from your parent's home, is often very stressful. Not only are you responsible for school, you must now balance all the other adult tasks that life demands. While moving out brings freedom to express yourself and live life the way you choose, the responsibilities that freedom carries can often result in parts of your adult life being neglected. In order to increase the chances of success during this year (and those after), you must practice adult skills before you move and make a plan for your well-being in all aspects of life. Adulting means making goals, self-discipline, resilience, humility, and problem-solving skills that will help you meet those goals.

****Lesson Assignment:** Take the time today to list out your needs and goals in the following areas: academic (e.g. college goals and requirements, school assignments, grades), critical thinking (e.g. deciding for yourself, researching, learning new skills), social well-being (e.g. friends, family, activities you enjoy), emotional well-being (e.g. stress management, mental health), organization and chores, financial and job requirements, and communication (e.g. letters, social interactions, public speaking). On the opposite side of the page, list resources you might have at your disposal to help you reach your needs/goals in these areas. This may include parental involvement, supportive friends, good teachers, community groups or resources, books/internet sources, a safe home, reliable transportation, or amount of time you have. Then, make a plan for the following 3-months. Consider how to use your resources and balance your needs and goals. Create a pie-chart for each of the three months, stating your main goals/needs in each area and how much you will focus on each goal/need. For example, in December, I might spend 40% of my time on social needs, 25% of my time on academic needs, 10% of my time on financial needs, 10% of my time on health needs, 10% of my time on organization and chores, and 5% of my time on communication, reflecting the time I want to spend with family and friends during the holidays, the assignments I need to finish, vacation time at work, the lack of major health problems or organization work, and a time to write Christmas cards. Your own charts will look different each month and should be based on what you feel is most important. Over the next three months, regularly compare your chart to your actual work and realign yourself as needed to accomplish and focus on your main goals/needs.

164. Note Taking, Study Skills, and Test Taking Skills

Learning how to learn is one of the most important aspects of gaining an education. While many children, and even adults, can graduate and gain degrees simply by memorizing facts and equations, a truly educated person knows how to gather information, think critically, entertain different view-points, research, and succinctly share what they have learned. While passing a class is important, gaining and using the knowledge you gain is more so.

In higher grades, including college, you will need to know how to effectively take notes. You will read books and online sources, attend lectures and conferences, and gain valuable experiences as you work towards your degree or certificate. Research shows that the very act of writing down important things help you remember information and comprehend it better. When writing notes, you activate a different part of your brain than you would from passively listening. Additionally, notes allow you to go back at a future date and review what you've written. Notes also give you a way to organize new information in a way that works for you.

Note-taking will be a personal experience and you will need to practice and craft different methods to find what works for you. Types of notes, too, may vary by situation. No matter the method, you should always write down the date and source (e.g. English lecture, *Harry Potter*, www.utah.gov) somewhere on your notes. Below are a few different systems for taking notes:

Outline notes work well in subjects such as English and History and can help organize information from meetings and conferences. Outline notes create a hierarchy order of information with several different categories. Each category has a header, which outlines the title, and then notes below the header that pertain to that category. Headers can be in bold, underlined, numbered, or written in a different color in order to separate them from the notes below. This type of note-taking takes practice, but is one of the easiest ways to take effective notes.

US History
12/2/24

The Civil War

Causes
Slavery
Property rights
State vs. Federal
Economic disparities

Abraham Lincoln
16th president
Born 1809
Emancipation Proclamation

Battles
Fort Sumter
-1st battle
Lexington
Gettysburg

The Cornell Method uses two columns (Cue and Notes) with a section at the bottom (Summary). This method is one of the easiest and most used ways of

taking notes in any setting. It allows you to take notes during class, reflect on them after class by creating main ideas, study prompts, connecting questions, or diagrams of what you've learned. And it gives a space for re-listing or summarizing information while you study for a test.

English 101

Cue	Notes
Figurative language	Figurative language adds interest and adds sensory experiences to writing.
Metaphor	Metaphors- compare
Simile	Simile- compare and always uses like or as
Oxymorons	Oxymorons- word that makes sound
Sensory language	Sensory language- describes a sensory thing
Personification	Personification- not-being thing acts like being thing
Hyperbole	Hyperbole- exaggeration

Summary Figurative language adds interest, better hooks ideas, adds meaning and concrete. Metaphors and similes compare before. Oxymorons are word labels. Sensory language- comes from the five senses. Personification- not being thing acting human thing. Hyperbole- too much label!

Box Notes use the same idea as outline notes, but create boxes across your papers or tablet for each category rather than a series of lists. Box notes are useful, especially for virtual note-takers, and help visual learners organize their information. They can be used in most subjects, but may not be the best way to record during a quick-paced lecture.



Chart/Matrix notes work especially well for recording various measurements, a series of facts, and statistics. It works best outside of lectures and in subjects that are completely factual. These notes are composed in a series of rows and columns. Each row has a main subject, with columns that follow which include information relevant to the subjects. While this a difficult way of taking notes, it

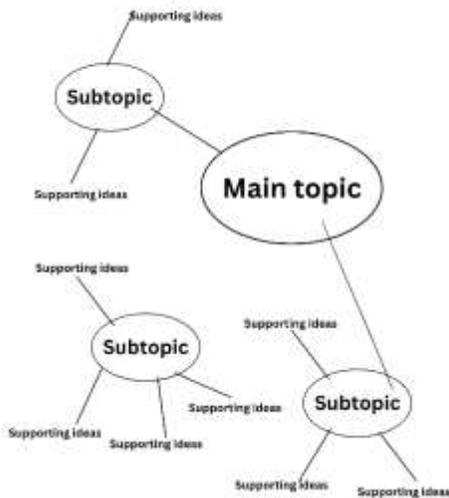
can be useful in certain situations to help visualize how information is related and organize a series of facts or numbers.

Developmental Stages	Age	Characteristics	Positive Behavior
Trust vs. Mistrust	Brith-18 mo.	Needs are/are not met	Goes to trusted adult when help is needed
Autonomy vs. Shame	10 mo. -3 years	Begins to complete tasks on their own/Hides actions	“I can do it myself”
Initiative vs. Guilt	3-5 years	Takes responsibility/Low self-esteem	Completes simple chores on their own

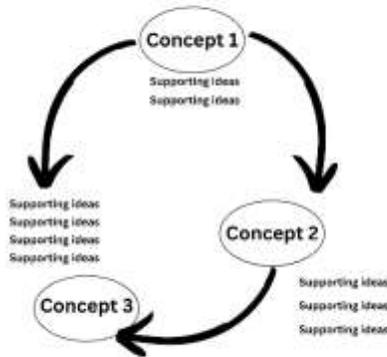
Mapping and **flow notes** have several similarities. In map notes, the main idea is placed at the center of your writing space and circled. Lines connect this circle to subtopics, which then spider out into supporting ideas. Map notes are a great way to visualize information, especially in high-content subjects or subjects that deal with abstract ideas and concepts. However, it is difficult to take map notes during a lecture, before you understand the structure of information. They are often used after a lecture to help organize information.

Flow notes, like map notes, consist of main topics and supporting ideas or information circled and laid out across the page. Unlike map notes, flow notes show the process or flow of information, making it great for business meetings, science classes, or literary analysis. Flow notes are more difficult to take, especially when you are not familiar with the subject and may need to be written after lectures when you have all the information and can begin to make connections.

Map Notes



Flow Notes



Sentence notes are a simple way to keep up with lectures or research while gathering information. Though these notes are less organized by concept, they provide a starting point for you to study from, make other types of notes, or simply remember a series of thoughts and ideas in the order you learned them. Sentence notes are simply a list of sentences written that reflect the information you gained, either quoted or paraphrased. Often, each sentence is bulleted or numbered to keep them organized. Alternatively, you can use phrases and/or keywords rather than forming complete formal sentences.

How to Grow

Peaches

1. Peach trees should be sprayed with dormant spray as soon as it is warm enough.
2. Peach trees should be pruned before they blossom.
3. Peach trees should be thinned when peaches are walnut-sized.
4. Peaches should be thinned to 6 in. apart.
5. Peach trees should be monitored and treated for pests.
6. Peaches should be picked when fully colored.
7. Peaches are ripe when they have a slight give under touch.
8. Peaches should be stored in a cool, but not cold, dry, and dark place to last longer.

QEC notes, or Question, Evidence, Conclusion notes, work best for subjects such as history or English, where information can be argued and backed by evidence. This type of note-taking breaks big concepts into smaller ones and provides an

area to sum up what you have learned. The question area is where you pose the main question you are trying to answer. Next, the evidence area is where you record information that you gather to answer your question. Finally, the conclusion area allows you to summarize what you have learned and provide an answer to your own question.

Q: Why does our solar system need the sun?

E:

- The sun is a burning star, providing light to Earth and other planets
- Plants and animals need light and photosynthesis to survive
- The sun, along with the Earth's atmosphere, provide the temperature and environment that plants and animals need to survive
- The mass of the sun keeps Earth and other planets in orbit, preventing unpredictable movement of planets

C: Without the sun, humans and other animals would not have the food, warmth, and environment they need to survive, and the solar system would lose its consistency in movements and shape

Highlighting is one of the easiest and most used method for note-taking. To do this, you simply **highlight (on paper or a screen) the important parts of a text** that you want to remember. While highlighting is useful for **quickly finding information** again, it should not be used as the only note-taking method. It is limited to items you can mark (ruling out library books, etc.) and does not help you retain information as well you would writing it out. It relies on the organization of the provided text, **rather than catering to your learning needs.** Highlighting is a great way to mark items you want to use for a research paper or report, but **does not help with lectures or meetings.** Additionally, it should be noted that it requires **focus on the most important aspects** of text and highlighting too much text on a page can defeat the purpose.

After taking, reading, and organizing your notes, it's time to study them. Research suggests that we need to see or hear something at least five times to remember it. That means that taking notes in class or as you read and never looking at them again won't help much with that upcoming test. Like note-taking, study is a learned skill that needs to be crafted in a way it works for you. It will be

different for each subject and you may need to practice and try out a few different methods before you find what works for you.

Study should be a scheduled part of your day and should span over several days, weeks, or months. By giving yourself time, consistent work, and rest between study sessions, you allow your brain to process and store information. Cramming the night before the test leaves you stressed and tired, and doesn't help you retain information as well as working for an extended time beforehand.

Blurting is a method of study that directly uses the notes you have taken in a lecture or as you read. This method requires you to quickly read through your notes, turn them over so that you can't see them, and write down everything you remember. By doing this over and over you begin to remember more and more. Blurting works well for memorizing facts, formulas, and charts.

Flashcards, like blurting, rely on memory and recall. They work best for small bits of information that you need to memorize. Flashcards are often used to remember vocabulary words, music notes, and math facts. To prepare them, write the answer on one side of an index card and the question on the other. For example: $1 \times 2 =$ on the front and 2 on the back. Show yourself (or ask someone to hold them for you) the question side. After you answer, check the back to see if you are correct. Repeat again until you can correctly answer each one without peeking at the back of the card.

Practice quizzes are a great way to study for nearly any subject. Quizzes for many subjects and tests (e.g. SAT, ACT) can be found online or you could make your own using your notes as a guide. At times, professors will create practice quizzes or allow you to see previous quizzes as a guide. To create your own, simply read through your notes and write questions you think you may be asked on the quiz or test. Then, hide your notes and take the quiz. It's a good idea to make several copies and several versions and practice over time. This method allows you to review information and get used to the testing format. It is helpful if you have testing anxiety, especially.

Cheat sheets are a great way to study and some professors allow them to be used on tests and quizzes. They are often limited to a certain size (e.g. 1 index card, $\frac{1}{2}$ page of printer paper) but can contain any information you think may help you on a test. Cheat sheets help you pull out the most important information and focus

on fitting it all in. They are useful for equations and formulas, especially in math and science classes. Even if you aren't allowed to take your cheat sheet into the test with you, creating one and reviewing it often can help you remember the information you need most.

Study guides are sometimes provided by professors or testing companies (e.g. SAT, ACT) and can help you understand where you need to focus. They give hints as to what will be covered on a test and provide a way to organize your notes so they are useful for passing the test. Study guides may also point out things you missed in your notes and allow you time to research and ask questions about those areas. If a study guide is provided for you, use it. Read through it and note what you can and cannot answer. Then, study the points that you are weakest on until you've mastered all the material.

In addition to individual study, many people benefit from learning together.

Study groups are one way to gain socialization and prepare for tests and quizzes. Getting together with peers from your class, virtually or in person, pools your resources and helps you use each other's strengths and notes. Study groups can use any of the individual study methods, hold a discussion about what they think may be on the test, and quiz each other. Study groups should meet regularly and stay on-topic to be effective.

Finally, one of the best methods for retaining knowledge is **teaching** it yourself. Create a presentation, write a report, make a flyer, or ask your sibling/roommate to listen to a lecture. Study your notes and then teach someone else about what you learned. Teaching forces you to know your subject. Allowing your "student" to ask questions can help fill in gaps and force you to look for and understand answers. Teaching also organizes information in your brain in a way that makes sense to you.

After you have studied, rested, and prepared, testing day finally arrives. In order to do your best and reflect your hard work, there are a few things you can do. First, make sure you rest well the night before and eat a healthy meal prior to heading to your test. Give yourself plenty of time to prepare materials (double-check testing requirements), get to the testing area, and park. If you can, be early to your test. This allows you to be confident and calm as you go through the process of gathering and starting your test. If you are feeling anxiety, do

something that calms and relaxes you (e.g. meditation, go for a walk, listen to music) before testing. Avoid negative thoughts (and classmates) as much as you can and think positive. You have prepared for this test. You got this!

Once you have your test, be sure to follow all rules (e.g. no talking, no phones, no looking at other test-takers' papers). Take a deep breath and read through the test. Note your time limits and the number of questions and set a pacing schedule in your head to finish on time. If allowed, use a scrap paper to brain dump, writing down all the information, formulas, or tricky facts you are afraid you might forget. If you are taking an essay test, take some time to plan out your writing.

As you begin, do what you know. Answer the questions that you know well first. This helps build confidence and gets questions out of the way quickly, giving you more time on those that are difficult. After answering the easy questions, go back and begin the more challenging ones. Use your brain dump and review your notes in your head. Go with your gut and don't change an answer unless you have a good reason. Understand the method for grading your test. If wrong answers count against you, don't guess. If wrong answers don't count, guess on what you can't figure out.

If you have time before testing is over, go back over your work. Check to be sure you answered all the questions (unless wrong answers count against you and you don't know the answer). Double check your answers to be sure you didn't make any mistakes and proof-read all written answers. Re-read instructions and ensure you understood and answered correctly.

After turning in your test, do a self-assessment. Note which parts you were well-prepared for and what you may want to study more on. Consider which types of questions were easy, and which were difficult. Make a mental note of how you can improve your study now that you know the testing style and procedure better. Finally, remember that you won't ace every test. Mistakes should be seen as learning opportunities and there's always room for improvement.

*Cited Sources: Tamm, S. (2024, March 20). *The 13 most effective note-taking methods - e-student*. E-Student. <https://e-student.org/note-taking-methods/>

****Lesson assignment:** This week, use at least three note-taking and three study methods from this lesson to study for your classes. Experiment with methods that work best for you. Then, use the test-taking skills listed above on your next test. After the test, assess how your notes, studying, and test preparation helped and what could be improved upon.

165. Social Skills and Communication

Though academics are your main focus while you are in school, other aspects of your life need attention, too. Without a support system, a healthy mind and body, effective communication skills, and proper organization of your resources, you academic and overall health will do poorly. It's important to remember to balance these skills with your academics, providing a well-rounded life.

During high school, your social interactions begin to shift away from your nuclear family and towards relationships outside your home. You may spend more time with friends, have a boy/girlfriend, and plan activities without your parents around. You also may be involved in clubs, service projects, school activities, and other things that take you away from home. Additionally, you may begin to work a job, which means interactions with co-workers and customers. You may also gain a roommate. Each of these social situations will be increasingly important as you go on to higher education, trade school, or professional work and move out of your family home.

When you move out, you instantly lose much of your support system, especially when your family is far away. Communicating with them through phone and video calls and occasional visits can help keep you connected. Many young adults are able to call their parents for advice and help still and stay in-touch with their siblings. Annual family reunions are another way to spend time together.

Friends from high school, too, may be far away and difficult to keep up with. Maintaining contact through social media, phone calls, reunions, and other methods can help you feel less lonely as you work to build new friendships in person.

In addition to family, you will need to build a new, local support system. One of the best ways to do this is by finding people with shared interests. Like high

school, many colleges provide opportunities for social interactions among students. Watch for events, clubs, organizations, and sports teams that you may be interested in joining. Choose 1-3 groups to be a part of, taking care to understand the time commitment you are making to each and how it will fit into your time management plan. When you can, attend events and get to know the people there. Talk with others in your classes, attend service projects, and plan outings with new friends. Over time, you will find ways to help and support each other as you go through the shared experiences of young adulthood.

Religious institutions can be another way to connect to others who share your values and build a support system. Attending church, religious classes, or service events can give you a chance to interact with people you may not see every day. Additionally, many communities offer clubs, organizations, and businesses that provide opportunities to engage with others in hobbies, acts of service, sports, lessons, and events. You can often find more information on what is offered in your community by visiting the local social media group page, the city or county website, or by reading ads on a local public board (e.g. library). These community interactions can provide experiences outside of school, interaction with people outside of academics, and chances to add skills to your resume.

Many young adults live in dorms or small apartments for their first home-away-from-home. Due to the high cost, this usually means sharing a space with others. If you have friends nearby, you may want to share rent and an apartment. If you live in a dorm, your roommate will likely be chosen for you. You may also be able to rent a room in an apartment, while others rent out the remaining rooms. These situations allow you to pay less for rent and utilities, share household chores with others, and learn to live with people you may not always agree with. When moving in, it's a good idea to decide how chores, spaces, and time in the home will be divided. Setting house rules together ensures that boundaries are met for all parties and that everyone is comfortable in their own home.

Most young adults work at a job in addition to schooling. Some are employed at the school they attend while others search for jobs outside of campus. Either way, work provides interactions with others and a chance to practice professional skills. Relationships at work should always be formal and respectful. Some choose not to share their personal life with co-workers while others share

everything. It really depends on the culture of your workplace and what you are comfortable with. For the most part, work relationships are surface-level and don't go past time at your job. However, co-workers can provide support and a listening ear as well as a break from academics.

As you grow, you will also start to be involved in romantic relationships. While these types of relationships can bring support, joy, and love into your life like no other type of relationship, they also put you in a vulnerable place. These relationships mean getting to know someone and, eventually, trusting someone as much as you trust yourself. Romantic relationships are often portrayed as perfect fairy tales in movies. However, happily ever after often means working together through disagreements, life's challenges, and difficult circumstances. Healthy relationships have boundaries, open communication, and a genuine concern for each other's well-being. They move at a pace both people are comfortable with. Relationships that are abusive in any way (e.g. verbally, physically, emotionally, sexually) should be left behind.

When dating, you should always meet first in a public place. This allows both of you to interact while others are around and provides a safe way to get together. You each should provide your own transportation. Usually, the person who asked the other out pays the bill, but this may be different in different situations. Dates should be activities that allow you time to talk and get to know each other. Talk should be respectful and you should share time equally, rather than allowing one person to run the conversation. Additional dates can be set up after if you both feel like you want to get to know more about each other. At first, these dates should include a public place or other people you know and trust (e.g. double dates). Over time, as you begin to trust each other, you may spend time alone. However, physical relationships (e.g. holding hands, kissing, sex) should only happen when both partners are completely comfortable. This relationship should make you feel safe, calm, and happy most of the time. While there will be disagreements, you should look at the problem together and try to solve it rather than blame each other. If you don't feel comfortable, loved, or safe, this relationship isn't the right one and you should move on.

Communication skills are important in any situation or relationship. Being able to clearly state facts, support your opinions, and discuss your emotions in a mature

way will help you in every relationship, personal or professional. Communication can be written, verbal, or non-verbal and should always be respectful and match the tone of the relationship.

Essays, letters, emails, research projects, and texts are written communications. These can help you keep up with friends, pass a class, apply to a job, or ask a question at work. They provide a paper trail and document your interactions. Written communication also allows you time to form your thoughts and get them out in an effective manner. Practicing these forms of communication and understanding the formality required helps you get your point across in a respectful tone. Professional and academic communications should always be formal. The layout, wording, and items being discussed should be related to work or school and never personal. They should address the person you are writing to, state your point in a concise way, and be signed with your full name. Communications between friends, romantic partners, roommates, or classmates, however, may be less formal and more personal. They should always respect the boundaries within the relationship and should never be abusive.

Verbal communication is anything you say aloud. At work, your verbal communication should be respectful and professional. You may address customers as Sir or Ma'am, refrain from swearing, and use technical jargon associated with your job. With your friends, your verbal communication can be more laid-back and informal. Verbal communication gives you an opportunity to share ideas, feelings, and information with others. It should never be disrespectful or abusive.

Non-verbal communication includes our facial expressions, gestures, body language, and tone. It should reflect the formality of the words coming out of our mouth and the situation we are in. Non-verbal communication tells others what you are thinking, whether you are interested in hearing what they are sharing, and how comfortable you are with the situation. Facing someone with an open stance, for example, means you are listening and interested, while looking away or crossing your arms implies that you are bored or don't want to hear it. In professional and academic settings, you should always sit or stand upright, keep your tone even and calm, and refrain from outward facial expressions or gestures that may be seen as rude. With friends, family, and in other personal

relationships, non-verbal communication will depend on the boundaries and structure present. Your parents, for example, may need you to look at them while they speak while your friends will talk to you as you work on a task.

****Lesson Assignment:** Throughout the day today, note how you interact with others in different relationships. Pay attention to the formality, tone, jargon, gestures, and other body language you use. After each interaction, write down your observations. You should observe at least one of each of the following: school interaction, interaction with parents, interaction with a peer (e.g. club), and work/formal interaction. Reflect upon how the interaction went and what verbal or non-verbal communication may have made it better or worse.

166. Physical and Emotional Health and Organizational Skills

In addition to your social health, maintaining physical and emotional health can be challenging for young adults who are just entering the world on their own. While it can be exciting to move out and finally live on your terms, the reality of adult responsibilities can weigh heavily and affect how you care for your physical and mental health. When you were at home, your parents likely took care of you when you were sick, missing work didn't mean losing income you needed for bills, and teachers were flexible. You may not have had to pay for your own medical bills, therapy sessions, or insurance. Losing this support, in addition to an already difficult school schedule, a new job, and the loss of your closest support system can become a challenge quickly, especially when you aren't feeling well. In fact, young adults have some of the highest rates of mental health problems as they go through a period of adjustment. They also often struggle with nutrition and health as they learn to make meals on a tight budget, fit in time to clean, visit doctors for regular checkups, and afford to pay for the care they need.

Physical health can affect all other aspects of your life. If you don't take care of your body, your performance will suffer in school and at work, your mental health is put at risk, your relationships will be put through extra stress. Maintaining physical health includes hygiene and self-care, eating healthy, balanced meals, getting enough sleep each night, refraining from or limiting harmful substances

(e.g. alcohol) to a responsible level, exercise, and regular check-ups. It also includes keeping a clean living space, regularly washing clothing and dishes, and taking safety precautions during daily activities (e.g. wearing a helmet or seat-belt, occupational hazard prevention, etc.). As an adult, physical health also means understanding and keeping up with your insurance plan so that you can seek treatment when needed for illness or injuries. The responsibilities for your health now lie on your shoulders, and it's up to you to keep up with doctor's appointments, correct medication dosages, and your own schedule to ensure your body is getting what it needs. The easiest way to do this for many people is to establish a routine. Break your physical tasks down into daily, weekly, monthly, bi-annual, and annual tasks. You should brush your teeth and wash your dishes daily, for example. However, meal prep may be a weekly chore. You may need to visit your primary care physician once a year, but may need to see a specialist more often. Keeping a chore chart and an annual calendar that track these chores can remind you when they need to be done. Alternatively, daily tasks (e.g. taking medications, taking out the trash) can be added to your phone alarms to help you remember. Find a system and a routine that works for you and do your best to stick to it. If you have roommates, splitting household responsibilities can help ease the burden on any one person and give you the opportunity to try new foods, cleaning methods, and stress-busters.

Most schools and communities have resources to help you maintain your physical health. School medical clinics, screenings, vaccine events, food pantries, conferences, and other local events can help you catch up on needed care or gather resources. Look on your school, city, and county websites for more information. You can find a doctor through your insurance company's website search tool. Here you can also search for specialists (e.g. eye doctors, OB/GYN's, etc.) that your insurance works with.

Mental health is a challenge for young adults, especially those that move far from their friends and family. Building a new support system and making new friends takes time and many college-aged adults feel lonely and homesick for a period of time. This, in addition to a challenging school workload, the responsibility for your physical needs, and working to meet your financial needs, can affect your mental health. While it is normal to have different emotions (e.g. nervous about a test, sad after a breakup), if certain emotions become overwhelming or

constant, they can signal a problem with your mental health. Depression is a feeling of hopelessness or sadness that seems it will never go away. It may be accompanied by suicidal thoughts. It can cause changes in behavior, extreme fatigue, and physical health problems. Anxiety is a feeling of nervousness and worry that is overwhelming and touches most (or all) aspects of your life. It can cause you to avoid any risk because you fear the outcome. It can affect your behavior, sleep patterns, and mood. Depression and anxiety are both mental illnesses. They should be treated much like a physical illness, by seeking out professional care and giving yourself time to heal. While life does not stop, taking time to focus more on your health in a time of sickness can help you heal more quickly.

In addition to depression and anxiety, other mental illnesses may come into play during young adulthood. If you are at risk (e.g. family history, past illness), now is the time to understand symptoms and treatments for illnesses that you may face.

Additionally, you should understand how to support others who may be suffering from mental illness, as it is likely a friend or family member will face this challenge. Understanding how to react, how to provide help, when to seek help, and where to find resources can help you feel prepared and capable if you ever face mental illness in yourself or someone close to you. Many schools and communities provide resources such as counseling, crisis hotlines, suicide prevention technique trainings, trauma or domestic violence shelters, support groups, and health clinics. This information can usually be found on your school website, through a city or county website, through an online search, or by asking your primary care doctor.

Suffering through physical trauma or mental illness is something that should never be blamed on the person who is ill. However, mental illness is often a taboo subject and many who need help don't reach out. If you or someone you know is suffering, remember that there are resources available and people who want to help. Start with your friends and family. Let them know what is going on and what you are worried about. Be honest and open about your feelings, emphasizing the fact that this is really bothering you. Then, if needed, talk to a doctor, school counselor, or call a hotline. Seeking help is an act of bravery that

can begin to journey to recovery. Remember, this is not an uncommon occurrence and mental illness is just as real as a physical ailment.

In addition to understanding mental illness, stress management is a tool that can greatly impact your adult life. As you grow, new stressors will come and knowing how to deal with stress now helps you have the tools to manage it later. By the time you graduate high school, you likely know what techniques work for you. You may deal with stress by taking a break, exercising, meditating, pushing through until the project is complete, promising yourself rewards, or socializing. However you manage stress, remember to schedule regular times throughout each day to relax and reassess your stress levels and how you will manage them.

Maintaining a balance of mental and physical health, and academic, social, and financial welling being is the challenge of adulthood. For young adults, this may seem overwhelming as they are just starting to manage these tasks on their own. However, one the biggest tools at your disposal to help keep your life in control are organization and discipline.

As a young adult, you are now in charge of your resources. You decide how much time, money, and resources to spend on each task throughout your day. By organizing your time (e.g. alarms, routine, schedule, calendar), you are reminded of tasks you need to complete and the timeline for them. Sticking to a routine can help you stay disciplined and focused, maintain your sleep schedule, and allow time for relaxation and proper meals. In many cases, you can choose your school and/or work schedule (a least in part). Understanding how your body works best can help you set a schedule that you can handle. For example, if you are not a morning person, you probably shouldn't take a 7 or 8 am class, knowing it will be difficult for you to get to each day. Additionally, scheduling a time for lunch between classes (or at your job break) helps ensure you have time to eat a healthy meal.

Organizing your money can help prevent financial stressors and prepare you for the future. During young adulthood, funding is often low as you struggle to pay tuition, household bills, and other expenses on a low income. As you don't have a degree yet, jobs are limited and you have to take one that covers what you need, but usually doesn't leave much extra. Setting a budget and sticking to it, saving

what you can, and reducing debt as much as possible will help set you up for financial success now and in the future.

Organizing your supplies and resources can help reduce daily stress. A clean living space not only protects your physical health, it helps your home feel calm, collected, and in control. This reduces stress and helps provide an efficient place to work on projects, school work, or at-home jobs. Each day, take time to tidy up your space. Wash and hang laundry, clean dishes, pick up and put away items that have been spread around the house, ensure your school or work supplies are prepared for the day. On the weekends, or your days off, take time to clean the bathroom, dust, clean floors, and wash your bedding. Create a grocery list of items you need for the next week by making a menu and checking your supplies. By working a little bit each day to stay organized, you save time in extra trips to the store, finding your items, and running back to get items you may have forgotten.

****Lesson Assignment:** Review the information found here and assess your physical and mental health. If needed, talk with someone about a health challenge you are worried about. Discuss insurance and other resources your family has with your parents. Then, add your regular checkups, workouts, stress management, and meals to your calendar/alarms.

[Depression Supporting Students at School.pdf](#)

[Final Preventing Youth Suicide Tips for Parents and Educators Infographic Flyer.pdf](#)

[Front Cover Anxiety Parent of Teen 8-15](#)

****Lesson Assignment:** Take time today to organize your space. Ensure that your supplies are ready for school and any activities, hang your laundry, clean up your room and desk. Throughout the next week, note how this preparation helps make your life more efficient and less stressful.

167. Applying for Higher Education, Scholarships, and Loans

Applying for college admittance is much like applying for a job. You will need to highlight your achievements and work to convince admittance committees that you deserve a place in their school. Generally, if you are going to college or trade school, you begin researching schools, taking required tests, and gathering necessary documents during your junior year. You apply to schools at the start of your senior high school year and you receive replies back by spring.

During high school, your grades, community involvement, leadership experiences, and test scores are important. Many higher education schools look at high school transcripts, scores from the ACT and/or SAT, and your overall experiences to decide if you fit in at their school or not. Keeping your grades up, joining clubs and committees, serving your community, and gaining work experience are all activities that help you become the well-rounded person that colleges are looking for. It is during this time that you should start to get an idea of what you may want to major in. You can do this by listing careers you are interested in, spending time volunteering or working in those industries, and getting an idea of the required education, training, and knowledge you will need to meet your career goals. By trying several different industries, you can get an idea of expected salaries, begin networking and gaining experience, and see if you really like working in that area. This will help you decide on what you would like to focus on in college/trade school. While many students begin college with a certain major, some enter higher education undeclared. This means that you haven't chosen your career path yet and are working on your basic classes, or general education. It's important to note that many students change majors as they learn more about each career. It's important to have an idea to start with, but being flexible with your goals and exploring is part of the process.

During your junior year, you will need to take the ACT and/or SAT tests. While you can re-take the tests to get a better score throughout your junior and senior years, you should strive to do your very best each time you take them. These test scores show colleges your strengths and knowledge you have gained throughout your schooling. They are used, along with your grade point average (GPA), to determine whether or not you will be successful in college-level classes. Both

tests have specific schedules, rules, and methods. Researching how each test works and spending time studying beforehand can help boost your scores.

Additionally, many high schools allow students to take Advanced Placement (AP) classes and tests or participate in concurrent enrollment at a local college or trade school. These opportunities can help you gain college credits while you are still in high school, putting you ahead of course schedules and closer to college graduation or trade certificates. At the end of the year, an AP test is administered and, if you pass, you earn credits towards that college class. College classes each have a certain number of credits (or points) and you must meet the minimum credit requirements to graduate and earn your degree.

Junior year is also a good time to research and visit colleges. Your education is an investment that will help you in the future and takes a considerable amount of time, money, and energy. The school you attend should not be chosen lightly. Researching the school's reputation, the program for your chosen major, tuition costs, financial aid options, living costs and requirements, community resources, the distance from home, the rules and culture on campus and off, the credits and classes you will be required to teach and the professors who teach them, the climate, weather, and safety of the city and campus, the virtual or in-person options, the assistance they provide for finding a job after graduation, and the ease of transferring credits to other schools are all important considerations. Of course, no school is perfect, but finding the correct balance is key to your success. Many schools have the option to learn about them online, visit campus, and go on a tour. Once you've narrowed it down, it's a good idea to take a day or two to visit each one and get a feel for what is really being offered.

At the start of senior year in high school, you will begin to apply for colleges/trade schools. This application process is much like a job application. Standard applications ask for basic information such as your name, address, age, and education level. You will also need to provide your GPA and an official copy of your transcript. You may be asked for your class rank, written essays, letters of recommendation, and ACT/SAT testing scores. If you have completed any AP courses and passed the tests (or are currently enrolled in any), or have completed credits through concurrent enrollment classes, include that information. Add any clubs, organizations, and leadership positions you are involved in as well as any

athletic, academic, or career achievements you have already met. Some schools also require specific forms or fees to be submitted. Others accept a coalition application or universal college application, allowing you to apply to several schools at once. A few may require an interview, audition, or portfolio. As you choose which colleges to apply to, learn the rules and requirements and double check to be sure you don't miss deadlines. Though many applications require a fee, the more places you apply, the more chances you have of getting into one of your choice colleges.

After your applications are in, continue to do well in your high school courses. Your final GPA will be requested by the school you choose after you are accepted. By spring, you should have a reply from most applications. Your application may have been rejected, accepted, or wait-listed. If you are put on the wait list, this means the school has accepted you but does not currently have an open spot. You will be able to be admitted when a spot opens up.

As your letters arrive, any schools you have been accepted to will require a response. Take time to hear back from most or all of your applications, review the research you have done, and choose the best school for you. Most schools have a deadline of May 1st to hear your response. This allows time for you to consider offers, resources, and goals. Respond to each school, letting them know if you will enroll or have decided to attend another college.

Once the enrollment process begins, be sure to double check for any forms, placement tests, and deadlines your school may have. Placement tests can help schools put you in the correct classes for your skill level. Review requirements for graduation and make a 1, 2, or 4-year plan for your class schedule. You can gain some certifications in a year, an associate's degree in two, or a bachelor's degree in four. If you plan on pursuing further education (masters or doctorate), make a plan for that as well.

Over the summer, spend time with friends and continue your job. Take time to plan out and prepare for your new housing arrangements. Gather needed school supplies. Arrive to campus at least a week before school starts, if you can. This will allow you time to get familiar with parking, have your ID made, gather needed textbooks, and get to know your campus. Many schools have "move-in" dates

where dorms are available. Be prepared to stock your new home with essentials and plan out your transportation and meals.

In addition to researching, applying to, and preparing for school, junior and senior year should be a time when you are applying for scholarships. While most scholarships are geared towards high school seniors, some allow applicants to start earlier. Additionally, there are scholarships available for those who are already in higher education schools.

While every scholarship will have different deadlines, requirements, and application processes, there are some common things that most ask for. Most have a form to fill out and submit. Many scholarships have a GPA requirement and ask you to share your transcript. Some require portfolios, essays, videos, or interviews to help them choose the best candidate. Others ask for letters of recommendation (from teachers, work supervisors, club leaders, coaches, or industry professionals you know) or test scores. You may also need to know your household income or provide copies of tax forms. Be prepared by gathering these early on. This will help you as you work through each application process.

When applying for scholarships, keeping track of which ones you've already done can be a huge task. It's a good idea to start a notebook or spreadsheet listing each scholarship with its deadlines and requirements, amounts, and a checkbox for which ones you have completed and which ones you've received a response from.

Though you can start applying to scholarships anytime, the FAFSA (Federal Application for Free Student Aid) is a government form that many people start with. This form can be found at studentaid.gov and is free to fill out and submit. There are other websites that will charge for this service, so be sure to use the official one above. The FAFSA requires information such as tax records for the previous two years, income, grades, up to 10 of your chosen colleges, and the expected amount your family is contributing to your education. These details help determine if you are eligible for federal aid such as grants (which don't have to be paid back), subsidized loans (which need to be paid back, but interest is paid by the government while you are enrolled in school), unsubsidized loans (which will be paid back with interest), and work-study programs (which allows the government to pay your employer to cover your salary while you are in school).

In addition, the FAFSA can be submitted and reviewed at a state level to see if you are eligible for more aid from the state you reside in. The FAFSA has strict deadlines and is open October 1st each year. You should apply each year, starting with the year before you begin college.

In addition to the FAFSA, scholarships and grants (money that doesn't need to be repaid) can be found in several different places. First, schools sometimes grant scholarships (e.g. athletic or academic) to prospective students in order to sway them to attend. These scholarships may have conditions (e.g. play a certain sport, keep a certain GPA) attached to them and can be lost if those conditions are not met during your time at that school. Many times, these can be the largest scholarships and are always worth looking into at each of your prospective schools.

Private scholarships are also a great way to gain money for school. Many clubs, organizations, businesses, foundations, and individuals offer scholarships each year. First, look into your workplace benefits. Some companies offer tuition reimbursement programs. Then, look into programs your extracurricular activities may offer. Many clubs and groups offer scholarships to members. Next, search online for scholarships that you may be eligible for. Use legitimate scholarship search engines (e.g. BigFuture.collegboard.org) to ensure you avoid scams. Never pay to apply for a scholarship and only give account information after you have been awarded a scholarship (not when applying) and have checked to make sure it is legitimate. Finally, search for local opportunities. A good way to do this is to talk to your high school counselor or college financial aid specialist.

While it may be tempting to apply for every scholarship you find, be sure that you meet the requirements before sending in forms. Some scholarships may require certain majors, grades, or finances to apply. Checking requirements will allow you to manage your time and focus on the aid you have the best chance of getting. While applying, be sure to spend time to double check your application information, provide good samples of your work (e.g. videos, essays, portfolios), and hype yourself up. Highlight accomplishments and lessons you've learned. Be honest in all your forms and work that you will submit, but work to convince others you deserve this opportunity and will use it well.

After your college is chosen and scholarships are in, you may need additional funding to meet tuition, book, supply, housing, transportation, and food needs. Higher education can be expensive and many students struggle with finances. To meet these differences, most students work a part-time or summer job. Some may also take out loans. However, before entering into a student loan contract, you should be aware of the obligations you are taking on. The money loaned to you will need to be paid back, with interest, by a certain deadline. Missing payments or falling behind can have a severe impact on your future and drop your credit score. Be responsible and realistic in any loans you take out, borrowing as little as possible and look for low interest rates. Consider the potential income for your future job and the total amount you will pay by the time the loan is over. Compare these amounts to see if it is worth the investment.

****Lesson Assignment:** Make a list of 3-5 possible careers you are thinking about pursuing. Then, research a local and a distant college, university, or tech school that offers programs in each. List credit, time, and tuition requirements for each. Keep these notes for reference as you begin your college search. If possible, visit a local college or university and take a tour.

****Lesson Assignment:** Take some time to search for scholarships you may be able to apply to now. Create a spreadsheet as outlined in the lesson above and begin your scholarship applications, if possible.

Chapter Twenty-Five: Building a 72-Hour Kit

168. Choosing a Bag

A 72-hour (or bugout bag) kit is an important part of being prepared for emergencies. With a little planning, it can protect you from the worst effects of the aftermath of natural disasters, evacuations, or being stranded on the side of the road. It is meant to sustain you through three days (72 hours) and hold all of your daily supplies for that time, as well as supplies you may need in an emergency. While you cannot plan for every scenario, a well-planned 72-hour kit will give you an advantage in the event of an emergency.

The first step of building a 72-hour kit is choosing a bag to hold it all. While you may choose to use an old backpack or duffle bag, certain features should be considered. The size of the bag should match the amount of supplies needed and take into consideration the weight you can carry. Hiking bags, for example, often contain an internal frame that simple school backpacks do not. This frame allows for a larger capacity and weight distribution that helps you carry more than a normal bag. Hiking bags also contain several different compartments, allowing for the organization of your supplies, and wide straps, giving you the sturdiness and stability that you may need in the event of an evacuation or situation in which you are stranded in the middle of nowhere.

A backpack isn't the only option, however. Some people choose to use a large storage tote, a rolling suitcase, a 5-gallon bucket, or an old cooler to hold their supplies. These options each have advantages and disadvantages that should be weighed when considering your own needs. For example, a rolling suitcase has fewer compartments and cannot easily be rolled in rugged terrain. A cooler is bulky and will take up space, but will hold more items. A storage tote will need to be carried, but can be easily packed into a vehicle.

In the end, the type of container you use for your 72-hour kit will be unique to you and your needs. However, it should be easy to move around, light enough for you to carry long distances, large enough to hold needed supplies, and very durable. Containers should provide protection from the sun and water (or allow room for waterproofing methods) and allow for a comfortable level of organization.

*Lesson Assignment: Choose a bag/container you can use to build you own 72-hour kit considering what you've learned in this lesson.

169. Filling Your Bag

Now that you have something to hold your 72-hour kit supplies, it's time to gather necessary items. A 72-hour kit should hold everything you need to survive outside of you home for three days. This includes food, water, shelter, clothing, and other emergency items. The table below shows the basic items needed in every 72-hour kit.

Item	Added to my Kit
Water (1-3 gallons per person)	
Water filter and/or Water Purification drops or tablets	
Electrolyte Powder	
Food for 3 days (MRE's, freeze dried meals, non-perishable foods, dehydrated foods, and/or high-calorie emergency food bars)	
Can opener (if needed)	
Method of cooking (if needed) such as a camp stove	
Mess kit (plate/bowl, fork, cup, etc.)	
Snacks (e.g. trail mix, jerky, hard candy, crackers)	
Shelter (e.g. tarp and rope, tent)	
Extra set of clothing or two (warm shirt, pants, underwear, socks)	
Matches and/or lighter	
Sleeping bag or Warm Blanket	
Emergency Blanket	
Hand/foot warmers	
Poncho	
Flashlight and Extra Batteries	
Candle and/or Glow Sticks	
Dishwashing Soap and Rag	

Washcloth	
Feminine Hygiene Supplies (if needed)	
Sanitizing Wipes	
Garbage Bags	
Hand Sanitizer	
Radio with Batteries (and extra batteries) or alternative power	
Whistle	
Signal Mirror	
Pencil and Notebook	
Body Wash or Soap	
Toothbrush and Toothpaste	
Comb/Brush	
Tissues	
Razor	
Lip Balm	
Sunscreen	
Shampoo and Conditioner	
Toilet Paper	
Deodorant	
Lotion	
First Aid Kit Including: Bandages, gauze pads, antibiotic ointment, antiseptic wipes, fever reducer, pain killer, burn gel, splint, eyewash solution, anti-itch/bug bite ointment, tweezers, blood clotting powder/pads, scissors, gloves, first aid and CPR instruction booklet	
Items to reduce stress (e.g. comfort blanket or stuffed animal, treat, games, book, small toys, small daily items such as a certain drink mix)	
Pocket knife and/or axe	
Insect Repellent	

Sewing Kit	
50-foot rope	
Small Shovel	
List of Phone Numbers and/or Addresses (family, emergency numbers, disaster hotlines, hospitals, utility companies, family work numbers, doctors, transportation, banks, Red Cross, schools, work, veterinarian)	
Copy of Photo ID, Insurance Cards, Current Family Photo	
Masks (N95 are best)	
At least \$100 in cash (small bills)	
Iodine Tablets (2 week supply)	
Power bank or solar charger	
Duct Tape	

Items should be stored in your bag/container in an organized way that provides protection from water. Smaller items may be placed in sealed plastic bags to waterproof them. Items should include needs for sheltering at home as well as evacuation to another location.

Basic supplies are often provided in ready-made 72-hour kits. However, each person’s needs are different so every 72-hour kit will be unique to the person building it. Whether you are adding to a store-bought kit or building your own, you will need additional items that match your own needs. Consider what you would need if you were unable to return to your home for three days. If possible, take time to practice leaving your home for that amount of time, living from your 72-hour kit, and taking notes on what you need to add when you return. The table below shows some specialty items that you may or may not decide to include in your kit. This is not a complete list and you will need to consider your own needs, space, and energy when adding personal items to your kit.

Item	Needed?	Added to my Kit
Baby Items (Diapers, wipes, formula, bottles)		
Medications (prescription, allergy, pain killer, vitamins, stomach issues, etc.)		
Medical Devices and Supplies (C-Pap, Blood Sugar Monitoring, Oxygen, etc.)		
Protection Items (ammo for firearm that is easily carried, knife, etc.) <i>Consider local laws, age, and safety concerns</i>		
Emergency Items for Car (e.g. flares, air compressor, jumper cables, tools, work gloves, cones, towing cable, fire extinguisher, gas can/full tank of gas)		
Maps (local and surrounding areas, area you are evacuating to)		
Binder with Important Information (e.g. social security numbers, shot records, medical history, passports, birth/marriage certificates, deeds and titles, copies of credit and/or debit cards, business info., passwords and usernames, bank account info., power of attorney, will, videos inventorying home and/or business for insurance purposes)		
Sentimental Items (photographs on a jump drive, etc.)		
Pet Supplies (food, leash, kennel, water bowl, etc.)		

*Lesson Assignment: Assemble items needed for your own 72-hour kit. Place them in your bag/container, ensuring that they are protected from water and well-organized. Encourage your family members to prepare their own kit and help provide necessary information.

170. Storing and Updating Your Bag

With your 72-hour kit now prepared and tested, you may feel more prepared for emergencies. However, assembling the kit is not the end of your work. Proper storage, maintenance, and use of your kit is needed to continue to protect yourself in a world of changing needs and technologies.

Your kit should be stored in a place where it is out of the way during everyday life, but easily accessible in the event that it is needed. It should not be buried beneath other items in the back of a closet. Store your kit in an area by your exit door, where it can quickly be grabbed without much work. To protect medicine and supplies, ensure the temperature is controlled as much as possible.

Emergency supplies for vehicles can be kept in the vehicle itself and many people have an entire second kit in their car. 72-hour kits for the entire family should be kept together, labeled with names or color-coded, so each person quickly knows which kit is their own.

Every six months, check your 72-hour kit for expired medications, batteries, and food. Ensure electronic devices work. Try on clothing to check fit. Check for leaks or broken items. Consider new or outdated personal needs. Rotate, add, and/or replace items as needed. Water in plastic containers should also be rotated at least once a year.

As you update your bag twice a year, practice using the items in it. Learn how to light a match, set up your shelter, wear a poncho, purify water, tune the radio, take your medications in correct dosages and with correct timing, perform basic first aid and CPR, cook the meals, sew, and other basic survival skills. If possible, practice these new skills as you learn them. Ensure you know how to properly and safely use each item in your kit.

***Lesson Assignment:** Find an appropriate storage area for your 72-hour kit. Then, mark the months you need to check and update your 72-hour kit (every 6 months) on your calendar. During those times, update your kit. Continue to update your kit every 6 months throughout your life.

171. Evacuation Plan

Having a 72-hour kit and understanding how to use it can save your life and the lives of those around you if you ever need to use it. However, emergencies can vary and bring about panic, rushed actions, and incredible amounts of stress. Fires, earthquakes, floods, storms, collisions, violence/terrorist attacks/war, toxic spills, supply chain issues, and other events may trigger the need to use your kit in your own home or during an evacuation. These events may happen when you are home with your family, or during a normal day when many family members are not together at home. It is important to have a plan in place for each scenario so that your family knows how to communicate, gather, and protect each other.

The first step to being prepared, is to consider the possible scenarios that may play out. With a parent, discuss the most likely emergencies that you face in your location. For example, your area may be prone to earthquakes, but have very little chance of encountering a tsunami or hurricane. In contrast, other areas may have a high likelihood of a tornado, but little chance of an earthquake. Together, make a list of 5-10 more likely events that may cause you to need your 72-hour kit. Remember that, though these scenarios are scary, planning and preparing will help you be more calm in the actual event than if you didn't know what to do.

Next, go through each scenario listed with your family and discuss your plans. What will your family do if this event occurs? Where will you gather? Will it be at home? A designated evacuation place? Will mom gather the children and meet dad at work? Will you gather the entire family before leaving or meet in a safe location? Consider how long you should wait for the others, how you will communicate in the event that electronics are not working, and how you will travel if roads are blocked. What action will each person in the family be responsible for? What is the plan if one member cannot perform their action? After creating a procedure for each scenario, type and print it out. Give each family member a copy of the plan and consider placing it into individual 72-hour kits and/or posting it in the house.

Finally, create a list of actions that need to be taken in the event of an evacuation. This may include preparing the car, grabbing items not included in your 72-hour kits (e.g. shoes, medications, chargers, animals, jackets, keys, wallets, computers, etc.). Beside each action, list the name of the family member that needs to

complete it. Practice evacuation using this list, modifying it as needed, with a goal of evacuating the entire family in five minutes or less.

Chapter Twenty-Six: Preparing Food Storage

172. Food

Food storage is an often overlooked, but important part of any home. Being prepared for emergencies, food shortages, and personal hardships can help make things less stressful and easier to survive. Food storage is more than just having a few extra things on hand in case you run out. It is recommended that you have a 3-day supply of all food, water, and supplies you may need in an emergency (72-hour kit, see chapter 25), a 3-month supply of home staples, and a 1-2 year supply of long-term food storage. While this may seem like a huge task, with some patience and record-keeping, you can build up a supply over time.

Your short-term food storage should reflect the things your family normally eats and drinks during meals and snacks. It can include frozen foods, canned foods, processed foods, and some long-term storage. To gather your short-term food storage, first take note of items your family uses often. Things like flour, sugar, butter, oils, vegetables, soups, meats, pasta, milk, or snacks may all be a part of your short-term food storage. To calculate what you will need, use the first month to take note of the items your family uses often and the amount used. Each time your family makes a meal or snack, list the item. At the end of the month, add up how much of each item was used. Multiply these numbers by three, creating a shopping list for your short-term storage. Remember, some items may need to be substituted for longer-lasting items. For example, milk quickly goes bad and you cannot store a 3-month supply easily. Powdered milk or evaporated milk has a longer shelf-life and can be substituted if needed. Rather than trying to purchase three months of food at once, begin slowly. Grab a few extra things each time you shop, marking these items off your food storage shopping list as you do. Purchase some supplies in bulk, which is usually (but not always) less expensive and store the extra. Use both your pantry and freezer to store foods as needed and replenish them as they are used.

After you've gathered your three-month supply, you can begin working on your long-term food storage. Long-term storage has a longer shelf-life and is meant to sustain you and your family over the course of a year or more. It is recommended that you have at least a 1-year supply of food and supplies for each family member. Storing a year of food takes time, money, organization, and space. If

you can, set aside a space (or spaces) in your home where this food can be stored. Food should not be exposed to light, moisture, or extreme temperature fluctuations. It should be self-stable and not need refrigeration. It should be protected from pests such as bugs, mice, and rats. It should be stored in water-tight, food-safe containers with proper seals and preservation methods observed. It may include commercially or home-canned products, freeze-dried foods, sealed buckets with oxygen absorbers, water-tight, sealed bags, or other commercially sealed containers.

Though you can purchase ready-made meals and packages, it is best if your food storage reflects what you normally eat. This will prevent unused food, diet changes in times of stress, and higher levels of sodium that often comes in these kits. It is smart to have some of these ready-made meals around, but they should not make up your entire storage. Food storage should be versatile and provide nutritious, balanced, and high-calorie (2300 calories per adult per day) meals for your family.

As a general rule, certain foods are recommended for long-term food storage. However, your own food storage plans will vary based on individual needs, regular foods eaten in your home, and taste. As with planning your short-term food storage, it is a good idea to assess your family's needs and add specific items to your list as needed. See the list below for a basic 1-year food storage supply for each adult in your home:

Item	Amount
Grains	300 lbs.
Sugar/Honey	60 lbs.
Fat/Oil	20 lbs.
Dried Legumes	60 lbs.
Garden Seeds	Enough for 1 planting season
Salt	8 lbs.
Milk	100 lbs.
Multi-vitamins	365 doses

Grains include wheat, rolled oats, cornmeal, pearled barley, white or brown rice, flour, and pasta. The 300 lb. recommendation can be split between a variety of these items and reflect your normal diet. Be sure to include flour/wheat for making bread.

Legumes include beans, lentils, split peas, and certain soup mixes. Fats and oils may include vegetable, olive, or other oils, shortening and/or butter (powdered has a longer shelf-life), mayonnaise, and spreads like peanut butter or Nutella.

Sugars include white, brown, and powdered sugars, honey, corn syrup, molasses, syrups, jams, fruit drinks, and gelatin.

Items like yeast (1-2 lbs./year), baking soda (1 lb./year), baking powder (2 lbs./year), dried eggs, vanilla, bouillon, spices, flavorings, and favorite foods in your home can be added as needed. Additionally, fruits and vegetables, meats, cheeses, and shelf-stable staples for regular meals in your home should be added to your storage. These items may be commercially or home canned, freeze-dried, smoked, powdered, or otherwise safely preserved and expiration dates should be carefully observed.

*Sources Cited: Probert, L., & Harkness, L. (2009). *Emergency food in a Nutshell* (2nd ed.). Purely Simple Publishing.

**Lesson Assignment: Use the chart on the following pages to map out where your family is with long-term food storage. Add any items your family regularly uses that can be stored long-term and create a shopping plan to slowly add to your totals over time until your family has food storage for 1 year.

Item Needed	Amount of People	Total Needed/ Person	Total Needed	Total on Hand	To Buy
Grains		300 lbs.			
Wheat					
Rolled Oats					
Cornmeal					
Pearled Barley					
Rice					
Flour					
Pasta					
Legumes		60 lbs.			
Dried Beans					
Lentils					
Split Peas					
Legume Soup Mix					
Sugar/Honey		60 lbs.			
White sugar					
Brown sugar					
Powdered sugar					
Honey					
Corn Syrup					
Molasses					
Maple syrup					
Jams					
Fruit drink					
Gelatin					
Fats/Oils		20 lbs.			
Vegetable oil					
Olive oil					
Other oil					
Shortening					
Spreads					
Mayonnaise					

Garden Seeds		Enough for 1 planting season			
Salt		8 lbs.			
Multi-Vitamins		365 doses			
Milk		100 lbs.			
Powdered milk					
Evaporated Milk					
Cheese					
Other					
Yeast		1 lb.			
Baking soda		1 lb.			
Baking powder		2 lb.			
Eggs					
Vanilla					
Bouillon					
Fruits					
Vegetables					
Meats					

Ready-made meals					
Seasonings					
Condiments					
Drinks					

173. Water

No matter how much food you save, it will do you no good unless you also have access to clean drinking water. In many emergencies, clean water is difficult to come by. Though it's nearly impossible to store a year's supply of water, having at least some water to drink, cook with, and water your garden is recommended. Never trust an outside water source (e.g. stream, lake, hose, flood water) during an emergency and always take precautions if you must use these sources for survival.

It is recommended you have a two-week supply of water (14 gallons per person) on hand at all times. This water should be rotated and/or replaced every six months. Water can be stored in the form of water-bottles or in food-grade water storage containers (e.g. jars, mylar water storage bags, aqua-bricks, 55 gallon plastic barrels, larger water tanks). Ensure that your water storage containers and any hoses you use were made for drinking water and do not let light into the container.

When storing water, you want to ensure that no bacteria or other microorganisms are growing in it. To do this, sanitize containers (use 1 part bleach to 10 parts water to rinse or commercial sanitizing solutions), nozzles, and any supplies before filling. Use water only from a trusted source (e.g. treated water) before an emergency. Store water in a dark place where leakage won't cause damage. Do not fill your storage containers to the top in case of freezing and expansion. After 6 months, drain large containers and replace plastic water bottles.

If needed, outside water sources can be used under specific circumstances. Remember that underground water is always safer than water found on the surface. However, any source of water should be cleaned before use. To do this, pour water through a filter (e.g. clean clothing, coffee filter, cheesecloth) to remove any large debris. Then, boil water vigorously for five minutes before drinking or using. If sterile water is needed, heat in a pressure cooker at 250 degrees for 15 minutes.

Alternatively, chemical disinfection can be used. While less effective, chemical treatments can be used in emergency situations if needed. Chlorine and iodine are the most common methods of treatment. Filter water first and allow it to

settle. If possible, use warmer water, as warmer temperatures decrease disinfectant time. A common source of chlorine is bleach. Add 8 drops (or 1/8 tsp.) bleach per gallon of water. Mix and let stand at least 30 minutes before using. If the odor of chlorine is still present, allow to sit exposed to the air for a few hours before use. Alternatively, chemical treatment tablets can be purchased at many emergency supply or camping stores. Follow the directions on the packages to clean water.

Water filters and purifiers can also help you clean water for drinking. They come in various forms, such as counter-top filters, straws, and gravity-fed bags. Follow the instructions from manufacturers, as each variety will be different.

Other things to consider when in need of water: never drink salt water, as this will lead to dehydration, in an emergency turn off the water coming into your home to prevent contamination, look for water in unexpected sources such as in canned fruits and vegetables, in toilet tanks, or stored in hot water heaters. Be sure to purify water from any questionable sources before use.

*Sources Cited: Probert, L., & Harkness, L. (2009). *Emergency food in a Nutshell* (2nd ed.). Purely Simple Publishing.

**Lesson Assignment: Locate water sources in your home that may be used in an emergency. Talk to your parents about storing an appropriate amount of water (14 gallons per person) and methods which may help you do that. Together, make a plan to add this to your shopping list and rotate water every 6 months.

174. Types of Food Storage

Now that you know what you need in your food storage, you need to decide which types of food storage your family needs. There are many ways to prepare, purchase, and store your short-term and long-term food storage and each has advantages and disadvantages. A balanced and full food storage likely has a few of each type in preparation for different situations and needs.

Ready-made or commercial food storage is a popular choice. It is convenient and allows you to quickly acquire a balanced diet. It can come in the form of canned foods, frozen foods, freeze-dried items in bags or buckets, meals-ready-to-eat (MRE's), or even in meal packs. Commercial food storage can have a long shelf-life and is less likely to be contaminated due to regulations on preparation and packaging. It can often be eaten with little to no preparation, making meals easier and less stressful in an emergency situation. However, convenience comes at a price and commercial food storage can be expensive. It does not always consider dietary restrictions and may contain allergens. It is difficult to customize to your family and can be high in sodium. Freeze-dried items and MRE's may be difficult to make a regular part of your diet, making rotation less likely.

Another type of food storage is #10 cans. These are larger versions of the types of cans you can purchase soup in and are often used to store a variety of items. They can be purchased commercially. They are durable, water, air, and pest-proof, and provide a smaller container that is easier to store. They also offer the advantage of breaking bulk supplies into smaller quantities, allowing you to open and use less at a time and reducing waste. It's possible to can your own items with the purchase of a few supplies, allowing you to buy in bulk and preserve what you have in usable quantities. These cans can be heavy and difficult to open and the equipment to get started is expensive. However, canning your own items can save money in the long run, especially if you purchase supplies as a group and can in bulk together.

A popular and less-expensive way to preserve foods on your own is by bottling it in jars. Canning produce, grains, jams, syrups, pickled foods, and other items seals foods in small quantities and allows you to safely store them for up to 18 months. Foods can be raw packed (put into the jars without being cooked) or hot packed (heated, and then added to jars). Many foods can be processed simply by packing the jars and then boiling them in a hot water bath. Foods with a lower acidic level will need to be processed in a pressure canner. Canning requires jars (which come in various sizes), lids, rings, a canning funnel, a jar lifter, and common household items such as a blender, cutting board, knife, and peeler. Specialty tools, like a lid lifter or cherry pitter, can be purchased but may not be necessary. A large stockpot can be used to process in a water bath, or a canning pot can be purchased. You will also need ingredients for your particular canning

recipe, and space to allow your jars to cool. No matter what you are canning, it is essential to follow the recipe, ensure that all jars are covered with at least 1 inch of water in the water bath, ensure timers are set to correct times, and allow your jars to cool as the recipe describes. Seals should be checked 24-hours after processing and all items that did not seal should be refrigerated and used within 2 weeks. Sealed items should be labeled with the contents and date of processing and stored in a safe, dark, and temperature-controlled area. Any jar showing signs of contamination (e.g. mold or debris in the jar, swelling, discoloration, popped seals) should be discarded. While this is a less expensive way to store food, it requires careful planning, more time, and can expose you to risk of illness if not properly done. Pressure cookers, too, pose a risk of injury if not carefully used.

For longer-term food storage such as grains and sugars, food safe 5-gallon buckets can be used. These buckets allow a protective barrier that the bags bulk foods are purchased in don't often provide. They protect from pests, exposure to air or water, and sunlight. However, the seals need to be checked regularly, opened containers should be used in a timely manner, and they are bulky to store. Food stored in buckets should be protected with the use of oxygen absorbers. Follow the directions on the oxygen absorber package to know how many to use for the quantity of foods needed.

Frozen foods, such as meats, cheese, frozen goods, dairy products, produce, eggs, and processed meals are a great way to store food short-term. Frozen foods need to stay at 0° F and should not be thawed and re-frozen. Most need to be safely thawed before use. The safest way to do this is to thaw in the refrigerator. Frozen foods require sealed packages to prevent cross-contamination and freezer burn. They also require electricity and cannot be relied upon in certain situations (e.g. water damage from flooding, power outages, etc.). After a certain amount of time, frozen foods begin to lose taste so they should be rotated regularly. Cheese and butter should be used every 6 months, milk every 3 months, fish every 2-6 months, fruit every year (with some types having a shorter freezer shelf-life), vegetables every 6-12 months, meat every 1-2 months (depending on type), and baked goods every 2-4 months.

Some foods, such as herbs, fruits, vegetables, and some meats, can be dehydrated for storage. Dehydrating can be done through sun drying, air drying, solar drying, or electric drying. Each method works in different ways. Sun drying simply means putting sliced produce on a screen and allowing it to dry in the sun. This is usually done in warm, less humid areas with thinly sliced produce or meat. Air drying means hanging items in the shade where air can circulate around them until they are dry. You see this with herbs and peppers. Solar drying uses a mini-greenhouse type device to heat and dry the food using the sun. It is placed outside in a sunny spot and better protected from pests and weather than in sun drying and air drying. Oven drying can be done by placing the food on a flat cooking sheet and placing it in the oven at 140° F until dry. Electric dehydrators are plugged into an electrical outlet and circulate heated air around the food, allowing a quicker drying time and less exposure to the elements. Dehydrating this way has a lower spoil rate and allows you to control temperature and time.

Freeze-dried foods are often used for food storage because they are light, easy to store, and lose virtually none of the nutrients while being processed. Though expensive, freeze dried foods can last up to 25 years. Personal freeze dryers are now available for purchase in homes, though they are costly. Freezer dryers work by freezing the food and then producing a vacuum that pulls the moisture out. Freeze-dried foods can be stored in any airtight container, including Mylar bags, with an oxygen absorber. Freeze dryers can process meals, fruits, vegetables, some meats, candies, breads, dairy, eggs, and various other products. If you are storing freeze-dried foods be sure to keep extra water, as the food will need to be rehydrated for use.

Cold storage is a way to preserve certain foods through the winter season until a new harvest comes in. A dry, dark, cool room (e.g. potato cellar) can be used to store potatoes, winter squash, onions, garlic, and other long-term foods. Foods like onions or garlic can be hung to dry and then stored. Winter squash can simply be set on shelves. Potatoes should be stored in boxes with layers of straw between them. Be sure to research proper drying techniques and storage before attempting to use a cold storage method.

*Cited Sources: Boeckmann, C. (2024, July 29). *How long does food last in the freezer?*. Almanac.com. <https://www.almanac.com/content/freezer-storage->

times-how-long-can-you-freeze-

foods#:~:text=How%20long%20can%20you%20freeze%20chicken,%20cheese,%20and%20other%20foods

****Lesson Assignment:** Analyze your family's food storage plan and note which types of food storage you see. Ensure that all storage instructions are being followed and that there are no signs of contamination. Then, choose three types of food storage to learn more about. For example, ask an adult to help you can produce from your garden or the store, try freeze-drying or dehydrating a favorite snack, or buy a bulk-item (e.g. sugar, flour, wheat, pasta) and learn to store it in a food-safe bucket.

175. Rotation and Correct Storage

In order to protect your investment, food storage needs to be properly handled, prepared, and stored. No matter the type, all food storage should be kept away from moisture and pests. It should be exposed to as little light as possible. Glass containers should be protected from falls and breakage. Products should remain sealed until in use and inspected regularly. Food should not be exposed to extreme temperature changes and should be kept around 70° F as much as possible. Areas like garages, sheds, and other outbuildings that are not temperature-controlled or are exposed to the elements should not be used to store food.

Rotation is another important part of correct food storage. Foods should be used before their expiration date and regularly be rotated in storage. To do this, place new foods behind or underneath older foods. This will help ensure that older foods are easy to reach and used first. Rotation prevents spoilage and allows for fresher, healthier foods.

****Lesson Assignment:** Choose three food products in your food storage and ensure that they are stored properly. Then, check expiration dates and stack/line them up so they can be properly rotated. Ensure that the nearest expiration date is in front/on top.

176. Medical

In addition to food and water, it is important to have a basic supply of medications and medical equipment in your home in case of an emergency. While many of the items you store will be a part of your regular use, some items will be emergency-specific. Items like trauma kits, burn gels, and suture supplies are always good to have on hand, even if you don't use them every day.

Like food storage, medical storage will be different for each family and person based on their own needs. It should begin with an extra supply of any prescription medications or medical equipment you need on a regular basis. Many companies (e.g. JASE Medical) provide kits just for emergency storage. Kits require you to meet with a doctor, discuss your needs, and be prescribed certain medications that are safe for your own use. These kits may also include items such as pain killers, birth control pills, antibiotics, anti-parasite, and antifungal medications.

Next, your storage should include basic over-the-counter medications that are used in your home on a regular basis. Tylenol, aspirin, Ibuprofen, allergy medications, cold medications, cough drops and/or medications, antifungal ointments, antidiarrheal treatments, supplements (e.g. iron, vitamin C, magnesium, zinc, D3), or eye medications/drops. You should have at least a few months of these medications on hand, but pay close attention to expiration dates as medications lose potency over time.

Iodide tablets are another medication you should have in your emergency kit. These tablets can be taken to prevent radiation poisoning after a nuclear attack. Many online and brick-and-mortar emergency supply stores have these tablets. Pay close attention to the instructions on the package and the expiration date.

Your emergency storage should also include basic first aid supplies. Items like bandages, gauze, wraps, antibacterial ointment, gloves, burn kits, burn gel, splints, medical tape, blood clotting agents, a surgical kit, a blood pressure machine, a stethoscope, suture materials, needles and syringes, hot and cold packs, and personal protection equipment (e.g. gowns, gloves, shoe covers, masks) should be in your kit. A first aid manual and knowledge of how to use each tool in your kit should also be a part of your preparation. The Red Cross teaches basic first aid and CPR classes that can help prepare you to administer aid

if needed. Electrolytes should also be included in your supplies, and come in many different types.

Finally, sanitation materials should be with your medical supplies. Items like antibacterial soaps, sanitizer, rubbing alcohol, peroxide, and iodine can help you be prepared for cuts, scrapes, and more serious wounds.

****Lesson Assignment:** Assess your family's medical needs. Make a list of what medications and supplies you might need in an emergency. Then, make a list of items you regularly use. With your parents, make a plan to purchase a 1-month supply of emergency medical items for your household.

177. Power

In some emergencies, power and/or gas may be shut off or unavailable. This means that most of the appliances and lights in your home will not work. While this is easy to deal with short-term, long term outages can cause many problems.

Usually, the most immediate need in an outage is light. Having extra flashlights and batteries, candles, or lanterns (e.g. battery-powered, propane-powered) on hand can help alleviate this. Flashlights should be placed in each bedroom where they can easily be seen. Items that are rechargeable should be charged and checked on a regular basis.

The next need is usually the ability to cool food and/or cook. While short-term outages allow you to simply keep the refrigerator/freezer closed to preserve the proper temperature, long-term outages can cause food to spoil. A cooler, gas powered fridge, or generator can help prevent this. Food packed in a cooler with ice will stay cool for a day or two. A gas-powered fridge or a generator will keep your food cool for as long as you have fuel. Both should be regularly checked and maintained. Cooking may be done on a BBQ, propane stove or griddle, or over a campfire if needed. It's a good idea to have at least one back-up cooking method in case of an emergency.

Next, other needs may need to be met during an outage. Running and charging things like water pumps, communication devices, computers, or medical devices can be as important as food and water in some situations. The most common

back-up power source is a generator. While these machines come in different types and sizes, a generator usually takes a type of fuel (e.g. unleaded gas or propane) and converts it into electricity. It can be connected to your home as a whole (in the case of larger generators) or to certain appliances and devices as needed. A generator will not generally run everything in your home at once, but will allow you to choose what to run based on your needs. Generators usually come with instruction manuals to help you understand their limits and proper usage. If you have a generator, practice adding fuel, turning it on and off, and connecting it correctly to different necessary devices in your home before you are in an emergency situation. Additionally, portable generators can be purchased in case you need to move from your home.

Alternatively, power can be stored before an emergency in deep-cell batteries. This allows you a certain amount of energy use during an outage, limited by how much you have stored. This method takes space and attention to ensuring your batteries are always charged. It allows for a customizable amount of power to be saved.

Weather-related power sources (e.g. wind turbines, solar panels, water turbines) are other less-common options. A turbine connects movement to a motor, which then converts the energy in the movement into usable energy in your home. These require a set-up before an emergency as the supplies and necessary knowledge will likely be unavailable during a crisis. Solar panels collect energy from the sun and convert it into usable energy. They can be large panels on or around your home, or may be smaller panels, as in a panel on a solar phone charger.

Energy needs should be carefully considered, especially in the event of a long-term outage. Your home should have at least one back-up plan for necessary power sources for medical devices, cooking, light, and food preservation. Having extra wood, charcoal, propane, and gasoline on hand is a great way to ensure you are prepared to face power outages.

****Lesson Assignment:** Cook a meal on an alternative power source today. This may be done by using a generator to power your stove or microwave, using a propane stove, using a BBQ, or cooking over a fire.

178. Sanitation

While sanitation is important in all situations, emergencies make this more complicated. When running water isn't available or safe and garbage isn't regularly picked up everyday tasks like washing your hands, using the restroom, and disposing of refuse become very difficult.

In an emergency situation it is important to continue to wash your hands to prevent the spread of germs and disease. This may be done using stored or disinfected water, hand sanitizers, or sanitizing wipes. Hands should be washed before handling food, after using the restroom, and after tending to the sick or injured. Placing water in a jug with soap nearby can help make this task easier.

Bathing is a regular part of our lives and often, we don't think much about having clean water. However, in an emergency water in our homes, streams, and rivers can become contaminated with sewage or other illness-causing materials. This means that water should be treated or stored water should be used. In emergency situations, cleaning your body can happen less regularly. You can also reserve washing to sponge baths that focus on problem-areas rather than showers or full tubs. Camping showers are available and are gravity-fed methods for cleaning your body without electricity.

Using the restroom becomes difficult when water doesn't flow into our homes. However, exposed sewage can create a breeding ground for diseases of all kinds. Toilets may still be used, but water will need to be added to flush waste from the bowl. This may not be an option if water storage is inadequate. If water is unavailable cat holes can be used for a short time. This means using a small shovel to dig a hole about 6 inches deep in the ground and then covering the waste back up when you are done. This is best-used if you are moving from location to location, but can become problematic if you are staying in one spot, especially with larger amounts of people. For longer-term use, an outhouse is the best option for waste elimination. This is a deep hole dug into the ground, far away from water and food sources. A small shed is built around the hole with a primitive seat over the hole. Simply use the outhouse as you would a portable toilet, and cover the hole with dirt when it is full.

Waste management is also a difficult part of any emergency situation. For those in cities, trash is often picked up on a scheduled basis, making it easy to get rid of

trash, food waste, and pet waste. However, in an emergency pick-up may not be an option. Waste laying around can bring odors, germs, and pests.

Many types of waste can be composted. Composting involves gathering waste, allowing it to break down over time. Compost uses heat, oxygen, and moisture to bring microorganisms that break down organic matter. When done properly, composted items turn into a nutrient rich material that can be added to a garden. The easiest way to compost is to create a pile of waste and allow it to heat up, turn it over once a month, and allow it to decompose. Items that can be composted instead of placed into the trash are: paper waste (e.g. cardboard, wrappers, papers, etc.), most food scraps (exceptions include citrus, oils, garlic, onions, baked goods, dairy, rice, and meat), and small wood shavings. Items like chemicals, plastics, dog, cat, or human feces, fire ash, treated wood, walnuts, fabric, and dead animals should never be added to compost. Alternatively, most waste can be safely burned (do not burn plastics or anything else that may release chemicals).

Waste that cannot be composted or burned needs to be taken to waste management or, if that isn't possible, secured in a pest-resistant container and placed away from the living space, water sources, and food sources.

Feminine hygiene is another consideration you should make for long-term storage. Having extra liners, pads, and tampons in your home can help protect your health and the health of others in an emergency. These items should be disposed of properly. Alternatively, items like menstrual cups can be used, cleaned, and reused.

Basic sanitation rules should still be followed, even in an emergency. Covering wounds and treating them with antibacterial medication can help prevent infection. Proper diapering and disposal methods can prevent illnesses. Trash should not be left out, but contained and properly disposed of when possible. Dishes should be cleaned with cooking water after every meal. Laundry should be done as needed and washed with soap and clean water. Water from unknown sources should never be used for drinking and any questionable water should be treated and disinfected before being used.

****Lesson Assignment:** Research methods for urban composting and your city's laws about composting. If possible, start a composting project in your home,

collecting appropriate waste and turning it regularly. Add the compost you create to your garden next spring.

179. Everyday Items

In addition to the previous topics, an emergency situation may make it difficult to acquire items you use every day. Items like toilet paper, paper towels, dish soap, aluminum foil, plastic bags, shampoo, conditioner, hand and body soaps, toothbrushes, mouthwash, toothpaste, floss, razor blades, laundry soap, lotion, deodorant, cleaning supplies, pet food, and pet supplies should be a part of your emergency preparation and storage. The needs of your household should guide your plan for everyday items. The best way to determine what you need is to observe your family's use for a month and begin to stock up on items slowly until you have at least a year of supplies on hand. Remember to rotate and replenish items as they are used.

****Lesson Assignment:** Create a list of items your family uses regularly and may need in an emergency situation. Assess how much of each item your family will need over the course of a year. Purchase and store at least 1-month of these supplies over the next few months.

Chapter Twenty-Seven: Gainful Employment

*Many of the College and Career Awareness Standards are covered in this chapter

180. How to Apply for a Job

Employment is a necessity in many family's financial plans. Having a job, for most people, is the method in which bills are paid, food is purchased, and costs are covered. A job gives employees a steady income, work experience, and training and knowledge in a specific field or industry.

The method for job application will vary from business to business. However, there are a few common ways employers look for workers. First, an ad may be placed in a local newspaper or on a flyer/sign within the business. Jobs may be offered at career fairs or conferences, especially on college campuses around graduation time. Professional social media platforms (e.g. LinkedIn) and online job search platforms (e.g. Monster.com) are also great places to find job openings. Staffing agencies, which specialize in helping businesses find employee, are another. Finally, many job openings are shared by word of mouth. If you are looking for a job, let the people around you know. They will help in your search and may be able to recommend a place.

Once you find a job opening, carefully examine the job requirements, pay and benefits, and other aspects of the job. Ensure that you meet the requirements, hours, and duties needed for the job. Consider the commute, the business goals and ethics, and the environment. Ask around to see how consumers and workers feel about the business. Check online reviews to get a feeling for challenges or benefits of working in that environment. Jobs with high turn-over (constant job openings and people leaving often) are usually not a good working environment. Visit the website of the company and learn more about what goes on there, what their goals are, and what types of people work there.

Additionally, if you can, consider careers you may want to pursue in the future and how the job you are applying for will contribute to work experience in that field. For example, if you want to run your own restaurant one day, it may be helpful to get a job in the food industry. If you'd like to sell your own product one day, it may be helpful to take a retail job.

When you discover a job that you'd like to apply for, look for the method they've chosen to use for applications. The business may require a written or typed application to be emailed or physically handed in. They may require an online application form. Some may want a resume, alone or in addition to an application. Be honest in your answers on applications and on your resume. While you want to emphasize your strengths, be willing to admit to weaknesses and your motivation to learn new things as well. Many businesses are looking for someone who not only fills requirements, but fits into their team well. Honesty on both sides is the best way to achieve a good match.

After applying for a job, wait two weeks before following up. In many cases, you will hear from a hiring manager before then. If you don't, politely email or call and inquire about the status of your application. In many cases, it takes longer than you would expect for the person hiring to go through applications and conduct interviews. The two-week window allows them time to do this.

*Lesson Assignment: Employment laws vary by state so consider state laws and personal goals as you complete this assignment. Option 1: Look for a job that is available in your area and, if possible, is within an industry you are considering for a career. Apply for this job and continue to search and submit applications until you find a part-time job. Option 2: Search online for a real or practice job application form. Practice filling it.

181. Resume Making

When job-hunting, it is important to note the requirements for application. Some jobs may only require an application. Others, will require a resume either alone or in addition to an application. A resume presents who you are as a professional to hiring managers and employers. Resumes are a clear and organized way to promote yourself for a job quickly.

Though the format and requirements of a resume will vary from industry to industry and they should be edited to better match each job being applied for, there are some things that every resume has in common.

Resumes should always include: Your first and last names and contact information (address/city, phone number, and a professional-looking email address), a summary of your skills and experience, your professional history, your

educational history, and other abilities and/or certifications. Other information (e.g. awards, experience, may be necessary, depending on job type).

Your name should be easy to find and is usually displaced near the top of the resume. It should be in a larger font than other aspects of your resume, but no larger than a 14 point size. Just under your name should be your contact information.

Next, include a resume summary or objective statement. If you are new to the job market, state your career goals, especially those which this job will help you come closer to. If you have experience, sum up your skills and past jobs in a sentence or two and relate them to the job you are applying to. In a resume, always use specific and active (verbs) language that sounds powerful and confident.

In the following section, include any relevant skills you may have. This may include anything from organization or creativity to specific software you are proficient in. Skills listed should reflect the requirements for the job and outline your truthful level of proficiency. This is also a good place to include keywords found in the job listing if you honestly excel in these areas. For example, if the job is looking for someone who is able to multitask and shows the ability to be a team-player, include those words in your skills section.

For many people, the longest section of the resume is the professional history. When you first start out, you may have little experience in the job market. However, you can list types of work you've done in other areas if this is the case. For example: leader of a club (shows leadership and management experience), work on grandparent's farm (shows physical labor and willingness to work hard), volunteer hours at an animal shelter (shows the ability to consistently arrive on time and empathy), babysitting (shows responsibility), or church roles (shows leadership, consistency, and management). Alternatively, you can list school projects you participated in, internships, and key achievements explaining how they are relevant to the job you are applying to.

If you do have work experience or previous jobs, these should be listed in the professional history. Begin with the job title. On the following line, provide the dates you began and ended (or "Current" if you are still working there) the job. Below that include a few bullet points that explain your role and duties. Include

those duties that relate to the job you are applying for and be specific. Remember to use active language and emphasize your impact on the company. For example, instead of saying *cooked on the grill* you may state that you *managed food production in high-paced environment, strictly enforced sanitation guidelines, and increased the efficiency of the food line by 50% through organizational processes*. While this area should emphasize your strengths, be sure to be honest about your skills and impact.

The next section includes your educational history. This area includes formal schooling (e.g. high school diploma, college degree, professional certificate, etc.). Each school attended should be listed. On the line below the school, list the dates attended. Next, list the degree or certificate earned, the major or focus of study, and other relevant and complementary information (e.g. high GPA, honors, etc.). Both the professional history and educational history sections should be listed in chronological or reverse chronological order.

The final section of your resume gives you the opportunity to share more about who you are as a person. Here you will list awards you've earned, relevant classes and certificates you've earned (e.g. trained in a specific software program), and extracurricular activities, volunteer work not previously listed, or hobbies.

Once the details of your resume are written, you should consider the layout and formatting. While these considerations vary between industries and personal preferences, resumes should always look clean, organized and professional. They should be easy to read and provide brief and impactful statements. They should not be wordy and should not include fonts that are overly stylized, above 14 point size, or below 10 point size. Resumes are typically one page long. All margins should be 1-1.5 inches and your name should stand out with a larger font than the rest. Each section should be spaced away from the others and include a bold or larger font size heading. Bullet points should be used for the skills, professional, and educational sections. Spelling, grammar, and punctuation should be carefully edited for errors.

*Lesson Assignment: Research typical resume layouts and formats for a career you are interested in. Then, find a job listing within that industry. Create a resume for this job listing using the examples you found as a guide. Remember to edit your resume to match keywords in the job listing and emphasize your

strengths in an honest way. As a family member to read over your resume and offer suggestions on how to improve it. Using that feedback, polish your resume.

**Lesson Sources Cited: *How to make a comprehensive resume (with examples)*. Indeed. (n.d.). Retrieved February 7, 2023, from <https://www.indeed.com/career-advice/resumes-cover-letters/how-to-make-a-resume-with-examples>

182. Job Interview

After submitting your resume and/or job application, it will be reviewed by the hiring manager or owner of the business. They will evaluate your work experience, education, and skills. They will also consider how you would fit into the business team. If you are a potential fit for the position, they will contact you, usually within two weeks. In most cases you and other potential hires will be interviewed. The interview gives the hiring manager an opportunity to meet candidates face-to-face, learn more about their personality, and ask questions that were not clarified on the application or resume.

Though a job interview can be stressful, it is an opportunity to present yourself as a good candidate. If you are prepared and confident in your abilities, a job interview will be much easier. It is simply a conversation to see if you fit in the job and the job fits with you. A job interview also gives you the opportunity to see the inside of a company and ask questions.

Before the interview, re-read the job requirements and description and consider why you are a good fit. Remind yourself of the skills listed on your resume and any additional details you might want to share. Consider why you would like to work at this company, what improvements you may bring to it, and what opportunities you may gain from it. Consider aspects of your experiences or skills that may make you unique from other candidates and be prepared to answer questions about why the employer should choose you.

Though you cannot predict all the questions you will need to answer, there are some common ones you should always be prepared for. Be ready to describe yourself and give a brief summary of why you fit the job, why you are interested in the job, what your strengths and weaknesses are, and what sets you apart. Be prepared to answer questions about gaps in your resume if they exist. For

example, taking a year off work to care for a family member could create a gap of unemployment on your resume. Honestly explain the situation and, if possible, its resolution. Consider all questions carefully before answering, taking time to think about what you will say. Look at the question from the point of view of the person hiring and answer in diplomatic ways as needed. Don't put down previous employers or jobs, but other companies, or co-workers, but address direct questions in a way that considers all points of view. It is important to note that there are certain questions employers cannot legally ask during an interview. This varies from state to state and it is important to know which questions you can legally, but politely, refuse to answer.

Before going to your interview, ensure that you are professionally dressed and well-groomed. Your appearance gives a first impression of who you are and what you stand for. Dress in a professional manner that makes you look the part of the position you wish to fill. For men, a button-up shirt, tie, and slacks or suit are a good option. Women should wear a professional blouse and skirt, dress, or suit.

Arrive to your interview on time and check in with the front desk to let them know you've arrived, who you are meeting with, and to learn where you should wait. Patiently wait without distractions (e.g. don't take out your phone, etc.). When you are called stand and confidently walk in the direction of the person who called your name. Introduce yourself to the interviewer confidently and offer a strong handshake. Be sure to make eye contact now and throughout the interview.

Body language and confidence is important when you interview for a job. Though you may be nervous, it's important to present yourself in a strong and open way. This gives the impression that you are ready to take on the job and will naturally be confident in your skills. If this is not one of your skills, it may be helpful to hold practice interviews with family or friends before the real one.

Finally, you should prepare questions you have for the person hiring. Most interviews end with the opportunity to ask questions. Thoughtful and insightful questions are welcome and show you are willing to learn and really interested in the company and its goals. You may want to ask about a typical day in the position, what the pay and benefits are, why the person hiring likes working with

this company, or what the next steps are. Questions should show your interest and attention to the job.

*Lesson Assignment: Using the job listing from the previous lesson, ask a parent or other adult to hold a mock interview. Allow them to ask typical interview questions and answer them honestly. Ask the adult to provide feedback on your interview experience and consider their suggestions for your next interview.

**Lesson Sources Cited: How to prepare for an interview in 11 steps | indeed.com. (n.d.). Retrieved February 7, 2023, from <https://www.indeed.com/career-advice/interviewing/how-to-prepare-for-an-interview>

183. Choosing a Job

After a job interview most employers will thank you for coming and give you information on how you will be contacted in the future. This will vary from business to business but most use email or a phone call to let you know whether or not you will be offered the position. Some will only contact you if you are to receive an offer, but not if your application was rejected. Usually, a timeline will also be set. It is important to note this information so you know what to expect. It is also important to thank the interviewer for their time and the opportunity to learn more about the company. This can be done at the end of the interview, through a follow-up email, or with a thoughtful card mailed to the business address.

When you receive a follow-up email or call, continue to be professional and confident in your response. If you are rejected, thank them for their time and for the opportunity to learn more about the company once again. You may want to sincerely wish them luck with their goals. This continued interest may help set you apart for future position openings in the business and shows professional courtesy.

If you do receive a job offer, carefully listen to (and/or make note of) the details of the offer. If needed, ask questions about salary, benefits, hours you are expected to work, starting dates, and other important information. In some cases, you may want to accept the offer immediately. In others, you may need time to consider it. If the job requires your family to move, change their financial

budget, adjust their schedule, or if you have received other offers or hope to in the near future, it is a good idea to ask for time to consider. Politely inquire about an acceptable deadline for your answer and thank them for their consideration.

After receiving an offer, or multiple offers, consider the financial, emotional, physical, career, and practical effect these jobs would each have on you and your family. When trying to choose a job to accept, consider all aspects rather than just the salary and discuss which is the best fit for you. This is also the time, especially in professional settings, in which to negotiate for salary and benefits if you desire.

Make your decision within the acceptable timeline given. When you have decided, reply to the hiring manager in a polite and professional manner. Tell them you have decided to take the job and ask what the next steps are in the hiring process. Inquire about the time and date you will begin work, the dress code, and any equipment you may need to purchase.

*Lesson Assignment: Use the chart below to consider three different job offers. Assume you are qualified for each position. With an adult, discuss the disadvantages and advantages of each. Together, choose the best one for your present situation.

	Salary	Hours	Benefits	Commute	Job Climate	Opportunities Offered
Job 1	\$15/hour	M-F 4pm-9pm	Paid vacation days, Free food while working	10 min. drive	Medium-level stress	Emphasis on creativity, Potential promotions, Yearly raises of 5%
Job 2	\$20/hour	T-F 5pm-8pm Sat 9am-12pm	Sick days	30 min. drive	High stress levels and multitasking	Emphasis on efficiency, High-competition promotions, Raises of 20% with promotions
Job 3	\$12/hour	Sat-Sun 9am-5pm	Tuition paid, sick days, vacation days	20 min. drive	Relaxed climate	Emphasis on customer satisfaction, Promotions with increased education and training, Yearly raises of 7%

184. How to Keep a Job

On your first day, expect paperwork and a learning curve. Arrive prepared and dressed appropriately. It's a good idea to arrive 10-15 minutes early on your first day to complete paperwork and orient yourself.

Remember that, though you are competent in the necessary skills, you will need to learn the policies and procedures of this specific company. You are learning names, processes, and rules. Many jobs, especially entry level jobs, provide a time in which you will be trained for your specific position. Ask questions, take your time, and be patient with yourself and those around you as you learn.

As you become more comfortable in a position, ensure that you are working as part of a team. Take time to discuss decisions and processes with your co-workers as needed. Be honest with your employer or manager and address problems openly. In many cases, conflict can be avoided by addressing the problem and working together to find a solution rather than blaming others. Be

confident in suggesting improvements or ideas and open to discussion with your superiors. Take feedback and constructive criticism to heart, evaluating your performance and making changes as needed.

In most positions, if you are there the days and hours required and complete your tasks efficiently you are doing a good job. If you offer suggestions for improvements, work as a team, help those around you when needed, and show that you are willing to work for the good of the company, you are doing a great job. Employers tend to keep employees who are self-sufficient, hardworking, and honest about their skills, abilities, and boundaries. They like employees who continue to grow and learn. Keep up with the latest information and certifications relevant to your job and show an interest in advancement opportunities that will help you learn new skills. Finally, be willing to teach and train others as your experience increases.

*Lesson Assignment: Take a class, read an article or study, or watch a few videos that will help you learn or improve upon a skill needed for your chosen job. Take time to practice this skill and perfect it.

185. Why Work Experience Makes a Difference

Working at any job, no matter the position or industry, will give you work experience, which is an important consideration to future employers and a valuable resource to you. Work experience gives you new skills, teaches you how to interact in a professional environment, helps you learn to align yourself with policies and goals of a business, and proves that you are a valuable and reliable employee. It gives you the ability to test out certain industries and decide which ones you really are interested in and gives you connections in each area you try.

Additionally, when changing jobs or advancing your career, work experience in the right areas can help you gain better positions, negotiate higher salaries, and prove your worth as an employee. When hiring, most applicants that employers consider have the same types of educational experiences and qualifications. However, work experience sets some apart from others.

While you are young, consider careers you may want to pursue. Try to find entry level jobs, internships, or volunteer opportunities within these areas. If you want to be a veterinarian, for example, volunteer at a local animal shelter, begin a pet

sitting business, or look for a janitorial position at a local groomer. This experience, in addition to pursuing education, will teach you more about the industry and look great on resumes.

*Lesson Assignment: Choose three careers you may be interested in. Remember, these are not meant to be final decisions, but rather an exploration of interests. Research the needed education, skills, and training needed for each. Locate local or online methods of gaining that training. Note the average salaries, hours worked, stress-levels, and expectations for each. Research the outlook for these careers (e.g. UtahFutures, www.bls.gov). If possible, interview someone who works in each career currently. Then, search for a volunteer opportunity nearby that fits into one of these industries and offer your services over the summer. This will allow you to try out the career and gain work experience. Record the dates you work and duties performed to add to your resume.

Chapter Twenty-Eight: Children

186. Changing a Diaper

187. Warming a Bottle

188. Swaddling

189. Childproofing and Home Hazards

190. Installing a Using a Car seat

191. Child Development and Childcare Careers

Chapter Twenty-Nine: Interior Design, Decorating, and Holidays

192. Interior Design Basics: Space, Balance, Emphasis, Rhythm, Harmony, Scale

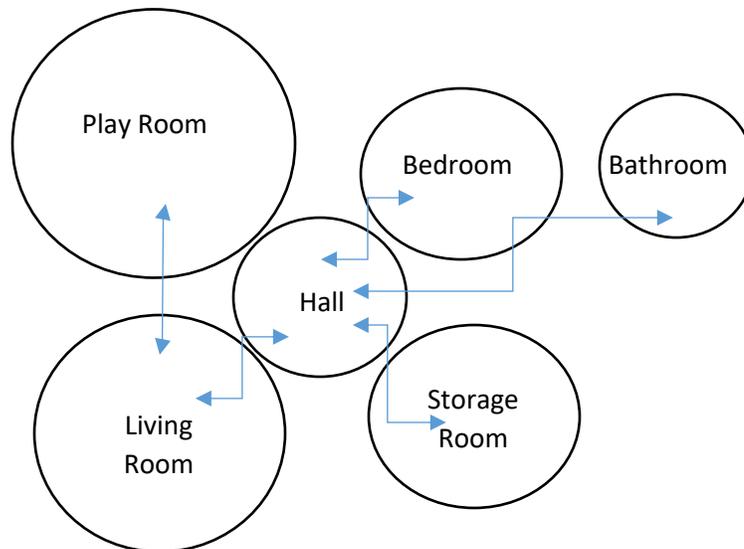
Interior design is the study and use of space, furniture design, and architecture which helps to create a certain environment or ambiance to a room or home. Interior decorating includes the surface additions and aesthetics in a room. While many people use these terms interchangeably, they are different careers and specialties. However, both a designer and decorator help their clients create a room or home that reflects their own personal style and the mood they want it to convey. Interior design and decorating focuses on several different aspects of the room including the use of space, lines, textures, shapes, patterns, balance, emphasis, rhythm, harmony, scale, and color. Together, these elements create endless combination possibilities and allow for unique expressions in each room.

The biggest aspect of interior design is space. While the amount of space you have is determined by the size of the room, how you organize and use the space can affect the way it looks, feels, and functions in day-to-day living. A room with over-stuffed furniture and lots of knick-knacks, for example, can give a cluttered, but cozy feel. The same room with minimal, straight-lined furniture and few decorations will feel modern and luxurious.

When determining how to best use the space you have, you must first define its purpose. What type of room is this? What will it be used for? What should happen in this room? What may need to be stored in this room in order for it to function properly? What aspects of the room denote its use for this function? For example, a large room in the public space of the house that contains a fireplace may be used as a family room, living room, library, or private den. Each of these functions would determine what items need to be placed in this room for it to properly be used. A family room may need to include a television, video game system, or game cupboard in addition to couches and other comfortable seating. A living room may consist of a coffee table and seating. A library may have individual chairs, rather than couches, and would include several bookshelves. A den may include a mixture of the aspects of each of these.

Once you understand what function the room will fulfil, you need to understand the traffic flow. A great way to do this is to create a bubble diagram. This

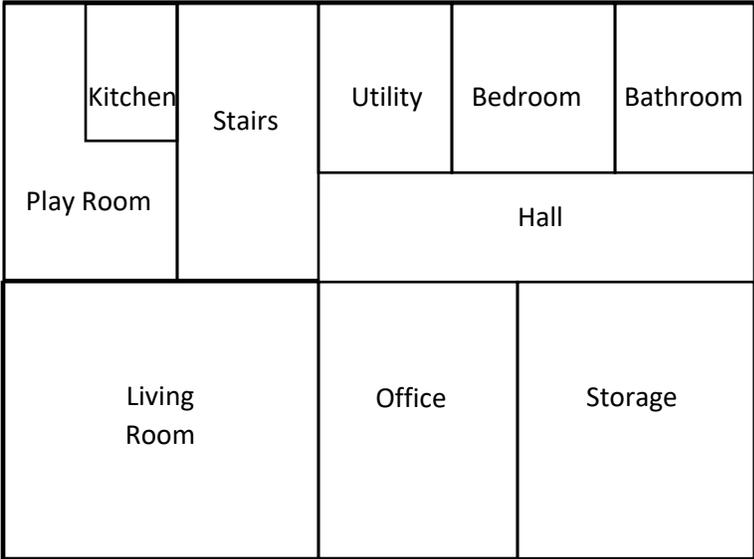
diagram is a simple way to map out the floor the room is on along with normal traffic patterns and relative size of the rooms. See an example below:



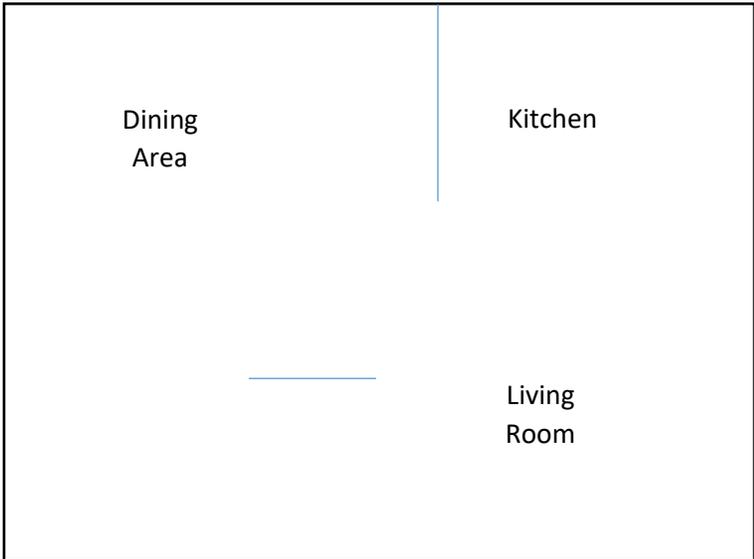
Understanding the traffic flow between and within rooms can help you space furniture and décor where it won't impede the natural movement of people throughout the room and home. Once you know the function and the flow of a room you can decide on changes to the floor plan, if needed.

The floor plan is the basic layout of the home's rooms and walls. It is drawn to scale and gives an overhead view of the size, shape, and fixtures (e.g. doors, windows, counters, etc.) in a room. Like a bubble diagram, it can show the flow between rooms. However, it also shows how much space you have to work with, which things are permanent, and what can be changed. There are two basic floor plans, open and closed. An open floor plan has fewer walls between rooms and provides an open, less private feeling. Open floor plans are great for people who like to entertain, as it doesn't force guests into separate areas, but creates one large space for people to gather together. In contrast, a closed floor plan has closed walls between rooms and allows for more private and intimate areas. See below for an example of both types of floor plans. Floor plans can be built to preference if you are working with new construction. However, they are more difficult to modify after the home has been built. It is possible to modify the floor plan of a home, but a licensed contractor should always be consulted first to

check for load-bearing walls, plumbing, electrical, and other structural concerns in making these changes.



Closed
Floor Plan



Open
Floor Plan

After the desired floor plan is in place, a space plan can be created for each space. This plan shows the basic layout and shape of each individual space including the furniture and items added in a room. In an open floor plan, it will also show zoning for each part of the space. For example, in a large, open area, you may include zoning for a living room, dining room, and kitchen, though there may be no walls separating them (example above). Space plans come in a variety of styles and can help add to or inhibit the functionality and flow of the room. They can also help emphasize certain parts of a room, enhance a certain ambiance or emotion, and reflect an owner's personal style or personality. Space plans are often in an L-shape, U-shape, T-shape, or circular shape. The shape in which the items in a room are organized will depend on several factors including the shape of the room, the traffic flow, and the desired ambiance. A T-shape, for example, might work better in a long, narrow room. An L-shape can emphasize or bring the focus to a certain part of a room (e.g. a television or fire place). And a circular shape can create a space that emphasizes gathering together. The space plan should match the functionality and needs of the room, while balancing traffic flow and aesthetic needs of the owner.

A space plan should also consider the scale of the items put into a room. Furniture, rugs, or art that is too large for a space can make a room feel cramped and small. Items that are too small for a space will make it feel less luxurious and comfortable. Learning about proper sizes and proportions before purchasing the items for each room will help create a space that correctly conveys the desired mood. Additionally, giving each room a focal point, or area that is the center of attention, helps to bring the different aspects of a room together while emphasizing the function of the room (e.g. a room in which the furniture all faces the fireplace makes the fireplace the focal point).

Finally, a designer should consider the balance of functionality and aesthetics. A room that is beautiful, but not functional is simply a wasted space while a room that is functional, but doesn't convey the feeling wanted can end up not being used. Every room should be well-organized, contain the materials needed for the function of the room in a well-planned way, and consider the natural traffic flow while adding details that bring in the proper aesthetics. Finding that balance often take several tries, moving or changing items as needed.

Cited Sources: Caroline. (2024, October 24). *Spatial interior design – space planning in interior design*. TheDesigneur. <https://thedesigneur.com/spatial-interior-design-space-planning-in-interior-design/>

****Lesson Assignment:** Make a bubble diagram and floor plan of each floor of your home. Consider natural traffic flow, size, shape, and function of each room, and what is working well in your home now. Make a note in each room of something that is not working well or conveying the proper mood. With your parent's permission, make a small change to fix three of these issues and use the next week to see how that change helps (or doesn't help) with those problems.

193. Interior Design: Line, Shape, Pattern, and Texture

Once the placement is determined and functionality is established, aesthetics become the major focus of interior design and decorating. Design elements such as color, texture, shape, lines, and patterns contribute to the theme and overall feeling of a room. By changing these aspects, you can create a modern, clean room, a cozy, warm room, and playful, fun room, or a room that matches a certain time period or place. While a major theme or style should be present in each part of the house, private areas (e.g. bedrooms) may show more personality while still having aspects that tie the rooms together.

After the floorplan, lines and shape are the biggest things that will determine the style of a room or home. Lines and shape are determined by your floorplan, in part because they include features like doorways, furniture, windows, countertops, and shelves. Lines can also be found in flooring, wall coverings, window coverings, rugs, pillows, and added patterns. Using lines and shape correctly in design can help create a certain style, emphasize part of the room, or create illusions of added or reduced length, width, and height. Lines are often described as horizontal, vertical, diagonal, or curved. Vertical lines may help make a room look taller, while horizontal lines can make it appear wider. Curved lines and shapes (e.g. a circle rug or round lamp) add a sense of softness or

playfulness to a room while clean, straight lines (e.g. modern minimalist chairs or clean, thin bookshelves) create a colder, more modern feel. When considering lines and shapes in a room, it's important to take function and the desired style into account.

Lines and shapes can be manipulated to create patterns throughout a room or home. Patterns are best used in larger rooms, but can be scaled down to fit into some smaller rooms as well. Patterns can be added to a room to create focal points, bring in new colors, or tie different aspects together. Patterns add interest to a room and should be used sparingly. Patterns can be found in flooring, fabrics, in art, or in wall coverings. Patterns in each room should coordinate, but not necessarily match.

Texture is another important aspect to design. A well-designed room brings a variety of textures into the space that add depth and warmth. Texture is added in layers, each one adding interest and building upon the previous layer. Often, adding materials such as stone, fabrics, and wood can help a room feel more warm and cozy while adding textures that are smooth or shiny (e.g. chrome) make for a more modern and cold-feeling space. The type and brightness of lighting can also affect the texture of a room. Large, geometric, and bright lights are colder while softer lighting and rounded shapes feel warmer. Designers can add personality to a room and create texture by adding books, artworks, plants, kick-knacks, and practical accessories that reflect the style of the homeowner.

Sources Cited: Doherty, R. (2021, May 7). *Using texture in interior design – how professionals harness it to add depth and dimension to a room.* homesandgardens.com. <https://www.homesandgardens.com/news/texture-in-interior-design> & *Elements of design: The importance of line |*. Hoskins Interior Design. (2016, January 11). <https://hoskinsinteriordesign.com/elements-of-design-the-importance-of-line/>

*Lesson Assignment: Add texture to one room of your home by adding a new furniture piece, pillow, rug, curtain, lamp, or other accessory. Note how adding this piece helps make the room more interesting and adds to the overall style.

194. Interior Design: Color (color schemes, shape, size, feelings, and moods)

Perhaps the most easily noticed part of design is color. Color makes or breaks a room and can convey style, function, and mood easier than other aspects of design. Color is added to a room through paint, wall coverings, fabrics, accessories, and accents. It should be a carefully considered and researched part of any room or home and, as with many design aspects, may take some experimentation before you get it right.

The first step to adding color to a design is understanding the color wheel. The color wheel is a visual aid presenting all of the colors and their relationship to each other. The color wheel starts with the three primary colors: yellow, red, and blue. Next, the secondary colors of green, orange, and purple are added. Finally, the tertiary colors, or colors made from combinations of primary and secondary colors are added. A basic color wheel can be seen in the image below:



The color wheel can help determine a color scheme because it shows the relationship between the colors and how they can contrast or complement each other. Colors that are direct opposites of each other are known as complementary colors. For example, blue and orange are complementary colors. When used in a room, they create a contrasting color scheme that works well.

Alternatively, green, blue, and yellow are next to each other on the color wheel. These colors are analogous and can create a cohesive color scheme. Monotone color schemes use a single color, or variations of a single color, throughout the room. When choosing colors for your room or home, you should consider their location on the color wheel and how they work with each other. Online color scheme generators can also help you to visualize colors side-by-side or create a color scheme based on an image you are inspired by.

Though color schemes can be used in a variety of ways successfully, interior design has a basic rule for color known as the 60-30-10 rule. This states that 60% of the room should be in neutral colors. Neutral colors are not found in the color wheel and include white, black, grey, brown, and beige. These colors match well with any color and can be added through wall coverings, fabrics, accessories, and/or accents. Next, 30% of the room should be in secondary colors added with furnishings and fabrics. Finally, 10% of a room's color should be in bold accent colors. This small amount of bold color ensures that the color doesn't overwhelm a room while ensuring it is added to the overall color scheme.

The final consideration when choosing color is the psychological impact. Each color conveys a certain emotion or feeling and adding that color to a room will impact the way a room feels and functions. It is important to consider the function of the room before adding color to ensure that the colors you add convey the mood that matches the function. For example, blue is a calming color that feels safe and isolated. It is best used in bedrooms and bathrooms, where the function is rest and relaxation. Greens remind us of nature, growth, and balance. It is a casual and calming color and can be used in kitchens, bedrooms, or bathrooms to convey a feeling of comfort. Red is a high-energy color and can be used in playrooms successfully. Yellow conveys a playfulness and feeling of happiness and creativity, making it great for a living room or office. Purple makes us think of luxury and creativity and is used successfully in living room but should be avoided in darker shades in bedrooms. Neutral colors convey a timelessness and are more subtle, making them best for low-energy rooms.

After creating a color scheme for a room, it should be tested in the room before being put completely in place. Add items to the room in the right colors and paint a small part of the wall in the colors you are thinking of using. Allow them to sit

for a day or two, checking them in different lighting (morning, noon, night) to make sure they reflect the style you want to convey and work well together. Make small changes as needed, experimenting until you find the color combination you like best.

Cited Sources: Sherborne, M. (2024, October 18). *Color palette tips: Unlocking the secrets of stunning interior design*. Designing Idea.
<https://designingidea.com/color-palette-tips/>

****Lesson Assignment:** Create a new color scheme for a room in your home. Consider the function and psychological impact of the colors, the 60-30-10 rule, and the style of the room. With your parents, add some accessories, fabrics, or wall coverings in the new scheme. Reflect on how these changes help or hurt the general feeling and functionality of the room.

195. Interior Design as a Career

While many people use basic interior design knowledge in their own homes, it is possible to hire a professional interior designer for a room or your entire home. It is a stable career and can be a profitable outlet for creative people with an eye for details.

Interior designers can make \$60,000/year (in 2024) and often live in metropolitan areas where the large population creates a demand. Most interior designers have a bachelor's degree in Interior Design and an emphasis in architecture, engineering, or design. Interior designers are highly organized, able to work on a team, self-motivated, creative, and communicate well. They are trained in design software, history of design, problem-solving skills, and various aspects of design. Many work with a design firm, some with specialties such as corporate, medical, or home design, though some are self-employed. In addition to a college degree, interior designers may need to be licensed and/or certified in their state.

Cited Sources: *Interior Designers*. Jobs, Career, Salary and Education Information. (n.d.). <https://collegegrad.com/careers/interior-designers>

****Lesson Assignment:** Research an interior design college program near you and the average pay for interior designers in your state. Make a list of pros and cons for this career and note whether or not it may be a good fit for you.

196. Wrapping a Gift

Holidays and birthdays often come with the opportunity to celebrate each other and give gifts. In fact, it is believed that humans have been exchanging gifts since the beginning of humanity. Gift giving is a way to create and strengthen bonds, show affection, and celebrate life events. Wrapping a gift in a box, bag, or colorful paper can make the process more fun and ensure the gift is a surprise to the receiver. The first step to wrapping a gift is to remove all price tags.

Wrapping a gift in a box is a simple, yet tasteful presentation. The box should be of high quality and fit the gift well. It should close completely and have few markings or writings on the outside. Today, gift boxes can be purchased in many colors, patterns, and for different occasions. Inside the box, tissue paper or simple padding can be added to protect the gift and provide an extra layer of wrapping. Gifts that are small in size or difficult to wrap with paper (e.g. jewelry, t-shirts) are often presented in gift boxes.

Gift bags are used often for large gifts, gifts that have many different pieces, and gifts that are difficult to fit into a box or wrapping paper. Examples of this include: a bath and body set, a stuffed animal, a large toy. Gift bags come in different colors, patterns, sizes, and materials. Some include handles or ties. Gifts should be wrapped in tissue paper and then placed in the bag. Additional tissue paper may be fluffed up and added on top of the gift in the bag to protect the surprise.

Gifts can also be wrapped in colorful or fun paper. Commercial wrapping paper is one option that provides large pieces or rolls of paper for any occasion. Newspaper, plain paper rolls, or other large, foldable paper can be used as well.

The easiest way to wrap a gift in paper is to first place it inside an appropriately sized box. The box should close with the lid flat when the gift is inside and be sealed closed with tape. Next, the gift should be laid on top of the rolled-out wrapping paper to measure the correct size. To do this, place the box face-down on the paper, leaving room on every side. Pick up the edge of the paper and bring it over the box. The paper should reach up the side and at least halfway across the top. If it doesn't, move the box until it does. Next, test the uncut side of the paper the same way, ensuring that it reaches up the side closest to it and halfway across the top. Add an inch or two to this measurement and cut the paper vertically. Next, test the paper sizing at the top and bottom of the box in the same way and cut to size.

To wrap your gift, bring one side of the paper up the side and at least halfway across the box. Use one piece of tape to secure the paper to the top. Then, bring the opposite side of the wrapping paper over the taped piece. It should overlap slightly. If needed, cut off excess paper or fold the edge down to fit. Tape this down on top of the first piece. The box should be completely covered with paper with the ends open.

Next, close up the ends. Starting with one end, push paper on the left and right inwards, towards the middle of that side of the box until the paper is hugging the edges of the box. If needed, tape these down so the edges are tight. This will create two triangle shaped folds in the top and bottom of that side. Crease these folds and bring the points to the center of the box, over the already folded sides, with the edges of the paper tight to the edges of the box. Use a piece of tape to secure all sides down. This side of the box should now be completely covered in paper. Repeat this process with the opposite end.

If you'd like, you can add a gift tag with the name of the recipient and/or giver to your gift. Additionally, you can flip the box and add a ribbon, bow, or others embellishments as needed.

Wrapping and embellishing gifts takes practice and patience. If the paper is cut too small at first or rips, try again. If it is too large, take the time to cut it to the correct size as you go. If there are wrinkles or bulges in your finished product, practice pulling the paper close to the box before taping it down.

****Lesson Assignment:** This year, work to wrap gifts from you to your friends, family, and others around you on your own. Ask your parents for tools, tips, and ideas that might make the job easier as you practice.

197. Putting up Christmas Lights

Lights are a symbolic and beautiful part of Christmas. Traditionally, all Christmas lighting was done with candles and oil lanterns. However, as electricity reached into homes, lighting became safer and easier to manage. Today, many people hang lights on the exterior of their homes, throughout the interior, and even on their Christmas tree to celebrate.

Exterior lighting comes in many different forms, sizes, shapes, lighting patterns, and colors. Most exterior Christmas lighting come in a connected line or net. Netted lights are great for placing over shrubbery or yard decorations while line or chord lights are perfect for decorating around the roofline, windows, doors, on banisters, in garland, or on exterior trees. Exterior lighting can include different colors and may be temporary (put up just for the season) or permanent (which stays up and can often be controlled through your phone).

The first step to exterior lighting is understanding how much you need. Line and chord lighting is measured in linear feet. After planning out where you would like to place lights, measure the length of the area. Measure the space between where you would like your lighting to begin and the nearest outlet as well. Then, take your measurements to the store and purchase your lighting. Ensure that it is rated for outdoor use, which will hold up better in the weather and sun outside. Choose the color, shape, lighting pattern (e.g. flashing, steady) and type of lighting that best matches your design. While you are there, purchase some plastic lighting clips and/or hooks to hang your lights.

Next, follow the directions for your lighting clips and install them around the area you would like to hang your lighting. Alternatively, you can install small hooks to hang the lighting wire on. Be sure not to damage any wiring, plumbing, or protective features of your home when doing so. Clips/ hooks should be placed about one foot apart for string lights and closer together for heavier types of lighting.

Before hanging your lighting, plug in the lights and check each bulb to be sure it is intact and working. Check the wiring for any damage. Replace bulbs as needed (replacement bulbs can be purchased at most stores). Steady lighting bulbs will have no markings while flashing bulbs will have a red or silver tip. If your lighting is wired in parallel, you should be able to quickly identify and switch out faulty bulbs. However, if they are in series, as with many older lights, one bad bulb can cause all the lights on the string to go out. The best way to find the bad bulb and replace it is to change out each bulb, one at a time, with a good one. If the rest of the series comes on when the bulb is replaced, leave the new one in place. If not, replace the original bulb and continue working down the line. Be sure to plug and unplug your lighting as you switch bulbs, as electric shock can occur.

Once you are certain your lights are safe and in working order, you can begin to hang them. Ensure you leave enough space at the start to reach your outlet. You may need to add an exterior extension cord to the beginning of your lights to ensure they reach power. Your cord should be in a dry area where it will not become a tripping hazard. Then, begin stringing the lights onto your clips or hooks. When you reach the end of one line, plug it into the next line and continue until your lights are secure. If you are working with a ladder (wooden or fiberglass is recommended), be sure to have a second person help you and hold the ladder. If you are working on the roof, take precautions against falls, especially if there is ice. Never run your cords through windows or doors.

Once your lights are up, plug them in and stand back to admire your work. Double-check to ensure they are functioning properly and match your design. Be sure to turn your lights off every evening before bed so they don't overheat. Alternatively, you can add a timer or light-sensor to your line that will turn the lights on or off for you.

Interior lights may be used on the inside of your home in much the same way. Many people place interior lights around the inside of windows, in garland, around doorways, and on Christmas trees. While many of the same techniques apply to interior lighting, a few additional precautions should be taken to ensure safety.

Before hanging interior lights, be sure they are rated for interior use, have no damaged wires, and all broken or non-working bulbs are replaced. Pay attention

to tripping hazards and distance to outlets. Clear the areas where lights will be from dust, cobwebs, and other flammable materials. Begin at the highest point and work your way down. Use light clips or hooks (command hooks work well) that will not damage your walls. Be creative, plan out your lighting design, and make adaptations as needed. As with exterior lighting, don't leave your interior lights on all night.

The center piece today's holiday homes is often the Christmas tree. While the tradition of the tree began thousands of years ago with Yule, it has become a cherished part of modern celebrations. The tree is often decorated with ornaments, tinsel, and lights. In fact, lights should be the first decoration placed on the tree. Tree lights should be rated for the area they are in (often interior), checked for damage and non-working bulbs, and measured to the nearest power source before hanging. Lights on a tree are often hung horizontally, beginning at the bottom of the tree and wrapping the light string around the diameter while working your way upwards. When connecting a second string of lights, push the plugs and dead-spot (with no lights) deep into the branches to hide it. If lights don't sit on a branch well, floral tape can be used to safely attach them where you want them. Alternatively, you can hang lights vertically, bottom to top of the tree, rather than winding them around it.

After the holidays, be sure to remove your lighting and store it in a safe, dry place free from pests. When packing away your lights, be careful not to tangle them or put sharp bends in the cord. If you have permanent lighting, use the app to change colors and designs throughout the year, as these lights are safe to use year-round.

****Lesson Assignment:** This Christmas, help your parents hang the exterior and interior lighting around your home. Safely participate in any repairs, designing, and hanging that needs to be done. Finally, help to take down and store the lights properly at the end of the season.

198. Carving a Pumpkin

Throughout history, people have celebrated the holiday we now know as Halloween. A version of Halloween was celebrated by pagan Norsemen and Celtic peoples, though they called it Samhain. During Samhain, it was believed that good and dark spirits were able to roam the earth as the days became shorter and the cold of coming winter settled in. During Samhain, it was said, the barriers between their world and the magical world of fairies, demons, dead ancestors, and other magical creatures was weakened, allowing them to visit humans. Costumes were donned to scare away evil creatures and protect mortals from their magic. Treats were left on doorsteps in the hopes that good spirits would find them and enjoy a snack. Homes were cleansed of the old (much like spring cleaning) and sacrifices and prayers were made in the hopes of making it through the winter without illness or hunger. The hearth fire was allowed to die out and then re-lit with the community fire, symbolizing a start to the new season. Additionally, vegetables, often gourds, were carved with terrifying faces and placed outside homes and farms to ward off evil.

Today, we practice many of these traditions still. We trick-or-treat, dressing up and expecting a snack at each doorstep. We celebrate fall with warm drinks, feasts, and fires. We prepare ourselves for illnesses that come with winter (e.g. flu shots, increase vitamin C intake, etc.), and we decorate our homes in scary ways. Rather than gourds, we carve pumpkins and place them in front of our homes. For many today, this is simply a fun tradition rather than an act of protection for the home.

Decorating a pumpkin is a fun and festive way to celebrate fall and the Halloween season. Many people paint their pumpkins or glue on decorative features. However, most people carve them.

Carving a pumpkin is an easy job, but it does take some time and can be messy. The first step is to choose where you will work and cover the surface you are working on. You could use paper towels, newspaper, clean trash bags, or simply place your pumpkin in a large dish. Next, gather your tools. You will need several knives of different sizes and a large spoon. You may also want to purchase a pumpkin carving kit, permanent marker, or extra supplies for your design.

Additionally, you can buy patterns and pattern books if you want to try more complex designs.

However you choose to carve your pumpkin, you will first need to draw the design onto it. Be sure that your design doesn't take too much of the pumpkin's sides off, or it will collapse. Drawing the design allows you to see it and make changes before cutting.

Next, you will need to cut the top off your pumpkin and clean it out. Start by cutting a circle around the stem. This circle should be large enough for your hand to fit into, but small enough that it doesn't go down the sides of your pumpkin. Make the cut at a slight angle so that the lid does not fall straight through when replaced on top of the pumpkin. If you are using a pumpkin carving kit, the pumpkin drill can help you make a hole to start. Set the lid aside.

Begin to remove the seeds and strings from the inside of the pumpkin. Seeds may be saved and roasted or re-planted if you wish. Use the pumpkin scooper in your kit or a large spoon to clean out the inside of your pumpkin. Set these parts aside.

Finally, you will begin to carve your pumpkin design. If it is a simple, cut design, use the pumpkin drill and/or knife to cut the pieces you want removed. Cut at a 90° angle for most cuts. Additionally, you may use an etching tool for more complex designs.

When your design is carved and you are happy with the results, place a candle inside your pumpkin. This may be a traditional or electric candle. Place it outside your front door and light your candle, replacing the lid. Remember to light your pumpkin each night, and especially on Halloween.

***Lesson Assignment:** This Halloween, do your best to carve your pumpkin on your own and help younger siblings/friends as needed.

199. Cooking a Turkey

Though many think of Thanksgiving as an American holiday begun when the Pilgrims and their Native American friends sat down to a meal together after the harvest, the idea of celebrating and giving thanks for what we have been given is as old as humans themselves. Throughout history, humans have gathered at the end of the harvest and thanked the earth, gods, and goddesses for helping them to gather food and survive another year. They've gathered to feast, drink, and celebrate the end of the huge task of gathering in food which had sustained them throughout summer and would, hopefully, keep them healthy through the difficult winter to come.

Thanksgiving in America, however, features a unique main dish: the turkey. Wild turkey are native to the Americas and were hunted and, likely domesticated, by the Native American peoples. This dish, along with several presidential statements recognizing the hand of the Christian god in America, make Thanksgiving unique in our country.

Cooking a turkey, however, is a difficult task as turkey takes large amounts of time to prepare and cook, and can become dry quickly. While there are many ways to cook a turkey (e.g. fried, baked, BBQ, deep pit), most people choose to cook it in the oven. This ensures a consistent and even heat and allows for conveniences such as oven bags, pop-out thermometers, and basting.

The first step to cooking a turkey is choosing the turkey you will cook. Whole or partial turkeys can be purchased at most grocery stores and, sometimes, at local farms. As a general rule, you will need 1.25 lbs. of turkey per person. At the store, turkeys will have a tag showing the weight of the bird.

After choosing your turkey, you will need to properly defrost it before cooking. This is especially important if you are deep frying your turkey, as any ice or water molecules can cause a dangerous reaction when dropped into the hot oil. To defrost the turkey, place it in a dish large enough for the turkey to lay flat in. This will catch any dripping liquids and prevent cross-contamination with other foods. Place the turkey and dish on the bottom shelf of your refrigerator at the appropriate time for the weight of your bird. This could take days, so plan early. It is recommended that you defrost for 24 hours for every 4-5 lbs. of turkey. This is the safest way to defrost a turkey.

Next, you will need to determine what time you would like to serve your turkey and calculate the cooking starting time. For every pound of your bird, it is recommended that you cook it 15-20 minutes. This means that a 12 lbs. bird will need 3-4 hours to cook. Additionally, you need 20-30 minutes for the bird to rest before carving it and preparation time before getting it in the oven. To use the example above, if I want to eat a 5 pm, I should start preparing my turkey at 11:30 am- 12 pm, start cooking it by 12:30 pm, and have it out of the oven and resting by 4:30 pm.

Once you've calculated your starting time, make sure you have gathered all the supplies needed and cleaned your working area and dishes. You will need to be extra careful about germs, as poultry can easily cross-contaminated other foods with a variety of diseases. Supplies you will need are: a roasting pan (this may be as simple as a foil pan that fits your turkey), a cutting board or other easy-to-wash surface, a meat thermometer, sanitizing wipes, an onion, 1 head of garlic, 2 Tbsp. butter, salt and pepper, rosemary (fresh or dried), and poultry spice. Other items that may make working with your turkey include oven turkey bags, pop-out thermometers, and sturdy disposable gloves.

Before you begin, preheat the oven to 325° F. Leaving your turkey in the defrosting dish, unwrap it and reach inside the body cavity to remove the giblets. Giblets include the organs, neck, and other pieces of the turkey that are not as tender to eat. Many people use these (minus the liver) to make gravy or turkey stock. If your turkey includes giblets, often they will be in a bag or simply placed inside the cavity. Simply put your hand in, feel around for them, and pull them out. They can be discarded or used in a gravy/stock recipe later. Next, pat the turkey dry with paper towels. This helps remove excess juices from sitting in the bag and defrosting and prepares the turkey for spicing.

Place your turkey in the roaster, stomach-side down and breast upwards. On a clean cutting board, cut your onion in half and shove it into the body cavity of your turkey. Cut off the top of the garlic and add it in the same area.

Next, season the outside of your bird by adding butter, chopped garlic, salt, pepper, rosemary, and poultry spice between the skin and the meat of your turkey. Butter can be placed under the skin in cubes or melted and mixed with the spices and poured under the skin. Ensure your entire bird is seasoned in this

way. Additionally, add some salt, pepper, and poultry seasoning to the outside of the skin.

Pull the ends of the legs together and use the flap of skin between the legs, or a small piece of twine, to secure the legs together. If you have chosen to use the turkey bag or pop-out thermometer, add those now. The thermometer should be placed into the meat of the breast and should pop out when the turkey reaches a temperature of 165-175° F internally, the safe temperature for consuming turkey meat. The bag can be placed around the entire pan and turkey and tied closed, capturing moisture and helping to keep your oven clean.

Place the turkey in the pre-heated oven, checking the internal temperature at the end of your calculated cooking time with a meat thermometer. This should be checked in the breast of the turkey and should be 165-175° F. If it is still under temperature, allow your turkey to cook longer. If needed, allow the turkey to roast a few minutes longer without the bag to brown the skin.

Before carving, you need to let your turkey rest for at least 30 minutes. This allows the meat to soak in the juices it shed during cooking and helps the meat you serve to be moist and tender.

As always, thoroughly clean any area, utensil, and dish your raw turkey came into contact with before preparing any other foods on them. Wash your hands often and dispose of the gloves you used in prep. Immediately after preparation is finished. Refrain from touching your face or other foods while working with raw meat.

Other traditional dishes served with turkey include: cranberry sauce, stuffing/dressing, mashed potatoes, gravy, rolls, green bean casserole, salads, pies, and sweet potatoes/yams.

*Lesson Assignment: This Thanksgiving, work with your parents to choose, defrost, prepare, and cook the turkey and other foods traditional to your family. Use the chart below to calculate how large of a turkey you will need, how much defrosting time it will require, and appropriate times for starting prep, cooking, and serving. An example has been done for you in the first row.

# of People	x 1.25 lbs/person	Actual turkey weight	÷ 4-5 lbs	X 24 hours	Dinner Time	Cooking Time (20 min/lb)	Start Prep Time	Start Cooking Time	Start Rest Time
5	6.25 lbs	12 lbs	3	3 days	5 pm	4 hours	11:30am-12pm	12:30 pm	4:30 pm

200. Lighting Fireworks

Though fireworks originated in China hundreds of years ago, they are still a part of celebrations around the world today. In America, many people light fireworks to celebrate 4th of July, New Year’s, and other holidays and events. Fireworks as small as sparklers and as large professional shows are set off every year. In many areas, adults can purchase a variety of fireworks. However, before purchasing fireworks, it’s important to understand how to safely transport, store, and use them.

Most fireworks consist of a few simple parts. They have a plastic or paper shell that holds everything together, an amount of black powder (gunpowder), and a fuse. The fuse, usually a string or cord, is cut long enough to allow the person lighting the firework to move away from it before the fire reaches the powder, which creates an explosive reaction. Fireworks may also contain different chemicals, which create different colors, and/or metal flakes, which create flashes

of light. In short, fireworks are explosives and can be quite dangerous if not properly cared for.

The first thing to check when choosing fireworks, is your local and state laws. Some states allow fireworks for public purchase, while others are more restrictive about what types can be bought. Additionally, firework restrictions may be in place temporarily in areas where there is a high risk of wildfire.

When purchasing fireworks, go to a trusted and well-known vendor. Around holidays, many stores carry fireworks and booths pop up around town run by well-known companies. Purchasing homemade fireworks from unknown vendors can be illegal and dangerous. Ensure you understand the requirements of each type of firework for sale before purchasing. Some may be small enough to hold in your hand (e.g. sparklers, pop-its) while others (fountains, aerials) may require more clearance. Many places have videos of the fireworks in action and information on the packaging to help aid you in your choices. Ask questions you may have while in the shop.

After purchasing your fireworks, transport them safely by placing them in the trunk or truck bed, not in the area where passengers are. If placed in the truck bed, cover them with a tarp to prevent sun exposure. In either spot, fireworks should be kept dry, away from flames and cigarettes, and out of direct sunlight. They should not be left where they can be accessed by children nor should they be left inside a hot car. It's a good idea to bring a container to place your fireworks in to prevent them from rolling around in the car as you drive.

If you need to store your fireworks for a time, place them in a plastic container with a lid. If needed, lock them up to ensure children don't reach them. Keep them away from flames, water, and electronics and at a temperature below 130° F. Refrain from moving them around too much.

When you are ready to use your fireworks, there are some basic rules and precautions to observe. First, ensure you have an area clear of debris, cars, homes, power lines, and other hazardous materials. This area should be large enough to meet the clearance requirements outlined on the fireworks you chose and level and flat. Next, bring a connected hose, several buckets of water, and/or fire extinguisher near the area to be used in case of fire. Map out a seating area that provides a clear view, but also ensures a safe distance for those who will be

watching. Bring the fireworks to an area nearby, but out of range of sparks from those that will be lit first. Create an “evacuation” plan and mentally map out a safe area to retreat to if something goes wrong. Fireworks can sometimes tip over, explode, or malfunction and knowing where to go for safety can prevent injuries. Check the weather, fireworks should not be used in times of high-wind and will not light well in rain or snow. Finally, ensure that the person(s) lighting and handling the fireworks is properly dressed. They should refrain from wearing baggy clothing or hanging jewelry and wear closed-toed shoes.

Light one firework at a time, in the lighting area. Use a lighter, rather than matches, and keep your face and body away from the fuse. Never let small children light fireworks on their own. Once the fuse is lit, move quickly to the safe watching area. Wait until the firework is completely finished before moving on to the next one. A firework that did not launch after lighting the fuse is known as a dud. This sometimes happens for several reasons. Duds, however, still contain black powder and can be dangerous. Do not try to re-light or move the firework dud or lean over it. Rather, it should be watered down thoroughly with a hose and a shovel should be used to submerge it in a bucket of water. This will extinguish any flame and prevent further unexpected reactions. Once cool (e.g. the next morning) the dud can be double wrapped plastic bags, ensuring they stay wet, and thrown away.

After your firework show, allow the fireworks to cool and spray them with the hose until fully saturated with water or place them in a bucket full of water carefully. Once saturated and cool, they can be thrown away in the garbage. However, it is safest to allow them to sit in the water overnight and then clean up in the morning. Many fires begin with fireworks that were thrown away before being properly extinguished and, as most people place their garbage cans next to buildings, can cause damage to houses and garages.

While fireworks can be safely used and enjoyed at home, certain precautions and preparations should be taken. By following these basic rules, most accidents and injuries can be avoided.

*Lesson Assignment: The year, work with your parents to learn how to choose, transport, store, prepare, and light fireworks that they feel are age-appropriate. Aid in the clean-up and safe disposal of the fireworks your family used.

201. Cooking and Dying Eggs

Though Easter is celebrated today as a Christian celebration of the resurrection of Jesus Christ, it originated as a pagan celebration of the coming of spring. To them, spring was the end of a long, often dangerous, winter full of sickness and with no new food growing. The first signs of spring were seen as new life for the earth and the start of a time of plenty. To commemorate this rebirth, eggs were decorated in bright colors as they were a symbol of life and fertility.

Today, many people dye Easter eggs to celebrate the same idea of rebirth, though most center it on Christ and the hope for life through Him. Ceramic and real eggs can be painted or dyed. Likewise, many people use plastic or candy eggs in place of real ones. However, dying eggs at home before Easter Sunday is a simple tradition observed throughout the world.

The first step of dying eggs is to prepare them. Chicken eggs with a white shell are commonly used as they hold and show dyed colors better than other varieties and are readily available. Eggs should be washed and gently placed in a pot of cool water until all eggs are completely submerged. A teaspoon of salt can be added to the water to prevent cracks. Next, place the pot on the stovetop on medium heat and cover with a lid. Allow the eggs to come to a boil and cook an additional 12 minutes. After 12 minutes, turn off the heat and allow eggs to cool. Alternatively, the pot, water, and eggs, can be placed under cool, running water to cool the eggs more quickly. When cool, place the eggs back in the carton and refrigerate.

To prepare the dye, fill a mug, cup, or shallow bowl $\frac{3}{4}$ of the way with water and add 1 Tbsp. of vinegar. Color is added using food coloring drops or egg dye tablets. The more food coloring drops used, the brighter the color will be. Mix with a spoon. Repeat this process for each desired color, each with its own cup/bowl. When all colors are prepared, eggs can be placed or dipped into the dye to color them. The longer you leave your egg in a color, the brighter the color will appear on the egg. Allow finished eggs to dry and store in a carton in the refrigerator. Eat within 1 week.

****Lesson Assignment:** During the Easter season, help prepare the eggs and dyes for your family. Spend time together experimenting with different methods and patterns on your eggs.

202. Our Traditional Foods

Some American holidays include traditional foods for homes across the country. For example, most people have turkey on Thanksgiving, ham at Christmas time, deviled eggs for Easter, and BBQ for Independence Day. However, each family has their own unique and traditional foods. For this lesson, fill in the recipe cards below with your family's favorite holiday meals, drinks, and snacks. Include things like treats for New Year's, drinks or snacks for Valentine's, St. Patrick's Day dinner, Easter treats and dinner, birthday cakes/treats, summer BBQ's, Halloween snacks and meals, Thanksgiving sides and desserts, and Christmas cookies, meals, sides, and drinks. Print as many copies of the cards as needed and find a method of organizing them (e.g. binder, laminated cards, card box) that works for you.

Chapter Thirty: Family Life

203. Family-Work Balance

Each day has 24 hours in it. This is true to every person on earth. However, how we spend that time will vary from person to person. The demands, priorities, and goals of each one of us will determine how our life is spent. Many times, we each have several goals we are working on at one time. We all need to make money to support ourselves, we may have a spouse and/or children, we may need to care for extended family or pets, we all have spiritual, emotional, physical, and mental health needs, and many of us enjoy hobbies or special interests. With so many demands on our time, we spend life trying to balance it all and often feel like there is never enough time to do all we want.

Like money, time can only be spent once and must be carefully prioritized. If our entire paycheck goes to buying food, there is nothing left for shelter, utilities, transportation, education, or fun. The choices we make in life will affect how we spend our time. The two biggest demands on our time will be work and family.

Most people need to work to support themselves and their families. A job trades time for money and is considered to be a necessary investment for survival in most cases. Often, it takes up a quarter of our time each week. Jobs affect our mental and physical health as well as our family relationships. Your choice of career, as well as the choice of your spouse, will shape nearly every other aspect of your life.

Choosing a career is an important decision. Different jobs come with different demands and rewards. They offer different pay-rates, require different amounts of education, take up differing amounts of time, and vary in difficulty and stress level. Some allow you to work while children are in school or bring your pet, while others may be strict about visitors. While many people simply choose a career they believe they will enjoy, considering all aspects of a job before investing in it is a smarter choice. Understanding that your needs and wants will change over time, and your job may too, can also help you navigate career choices.

When considering which career to pursue, first consider your main goals in life and the needs that come with them. If your goal is to travel, you will need a

career that pays well and offers flexibility. If you want a family, you will need a job that provides for their needs while giving you time at home. If you want a lavish lifestyle, you will need to be well-educated and hard working.

Next, make a list of careers that interest you and research them. How much education does this career require? What is the salary range? What are the average hours like? In what ways is this career flexible? In what ways is it not? What would I enjoy about this career? What would bother me about it? How easy or difficult is it to get a job in this field right now? How likely is it that I will use my degree? Is this a high-stress or laid-back career? Does it challenge or frustrate those working in it? If you can, interview a few people in each field and ask for their advice. What do they like? Dislike? What would they have done differently? Would they still choose this career if they could start over?

Compare each career, its demands and benefits, with your main goals. If a career you are interested in does not fit your main goals right now, look more seriously at those that do. If you can, get a lower-level job in the industry and get experience from inside the field. Decide if it is something you really want to do and if it fits with your goals.

For many people, their main goal in life is to support their family. This may mean supporting themselves and pets, a spouse, or children. It may also mean supporting their parents or extended family members as needed. It may mean living with close friends or alone. Whatever your goals for a family are, you will likely want to spend time with them. Family time may be recreational and fun. However, it may also mean time with sick children, time maintaining and running a household, time volunteering to schools, and time supporting a friend in a crisis. Family time may also mean caring for your own physical and mental health, engaging in hobbies you enjoy, or fulfilling other goals you have.

Finding a work-family balance is a difficult task. Your choice of career and family-type will greatly influence this balance. It will change over time as your family grows or becomes smaller and your career demands increase or decrease. This balancing act is one of constant assessment of priorities and adjustments. It requires honesty, communication, and understanding between you, your employer, and your family members. Often, it requires a sacrifice of less-important priorities in order to focus on the most important things.

Boundaries are an important part of balancing your life. They will look different for each circumstance but it's important to set them. This protects your health and time at work as well as at home. Boundaries may be for you, such as you work only a certain amount of hours or only in a certain place, for your work, as in not taking extra hours during special family days, or for your family, as in no phone calls during work meetings. Learning to say no and ask that others respect your boundaries will decrease your stress levels and improve your focus both at work and at home.

Understanding your resources will also help you maintain a balance. With only so much time, energy, and mental focus, there will be some non-essential activities (e.g. limit time on social media or in other hobbies) that will need to be limited or eliminated for a time. You may have to ask for extended deadlines occasionally, insist on taking vacation or sick leave as agreed upon in your contract, or schedule some larger family activities around your work schedule in order to be there. These choices will be personal and should reflect your focus on your main goals.

Communication is key to establishing a balanced life. Honest communication will help you understand your own needs, the needs of family members, and the needs of your job. This can help you to prioritize and adjust your time and focus.

In addition to caring for your career and your family, you will need to find time to care for yourself. Stress management, hobbies, and self-care help improve your health and focus and allow you to be better at your job and more available for your family. It is important to consider this when making decisions about time management.

****Lesson Assignment:** Take the time to research 10 careers you may be interested in. Make a chart showing the job, average working hours, average pay, stress-level, required education (money and time investment), benefits, and pitfalls for each one. Then, make a list of three to five main goals you have for your life. Use your research to see which three careers fit your goals best. If you can, spend time learning about, volunteering in, or working in your chosen fields to get an idea of what it is really like.

204. Family Roles and Rules

Families come in all shapes, sizes, and types. Each family has different routines, rules, goals, and its own unique culture. A family is the smallest type of community and, like any community, members rely on each other for the things they need and want.

No matter the makeup of the family, each household has goals, needs, and dreams for the future. These may be personal or group goals and needs. To achieve these goals and provide for the needs in the home, certain work must be done. For example, to have a clean home, chores must be done by someone. To have healthy, nutritious food, someone must cook. To pay the mortgage, someone must earn money. To gain an education, someone must do schoolwork, transport the kids to school, and ensure they have all the supplies necessary. Running a household and making sure all needs are met is a team effort.

While the rules in each household will vary, a healthy home considers input from all members of the team. While parents may make the final decision (as they have more experience and a better understanding of resources) rules in the home work better if they are discussed and explained beforehand. Each family must decide on their own rules, the consequences for breaking them, and what happens if they are correctly followed. Parents should talk with children about rules, explaining why they exist and what the goal of each rule is. They should set clear, fair, and age-appropriate consequences. For example, a rule of 1 hour of screen time per child per day may seem unfair to children at first. However, when parents explain that excessive screen time can cause several specific problems (e.g. less-active lifestyle, mood changes, wasted time, work not getting finished), children can start to understand that parents created the rule to help guide and protect children. After a rule is in place, it should be consistently followed for every child. If the rule is broken, the parent should explain what rule was broken, what the consequence is, and allow the child to state what they could have done differently. Though it may take time, staying consistent in enforcing rules is the surest way of teaching children boundaries.

As children grow and needs change, rules may change, too. For example, the bedtime of a teen may be much later than that of a toddler. Parents should point out that each new rule comes with new responsibilities and that, as the child gets

older, they will be given more trust to make their own decisions within the rules. Trust is something earned by being reliable and honest. Teens may have more input on which rules apply to them and what the consequences and rewards may be for those rules. For example, a teen who drives is given more freedom to travel and spend time with friends. However, a rule might be made that they always tell parents where they are and who they are with, as a safety precaution. This shows that parents trust their child to choose where to spend their time, while also relying on that child to drive safely, care for the car, and report their location to the parent for their own safety. A reward for careful observance of this rule may be that the teen can leave for longer periods of time or travel further distances. Breaking the rule may signal that the teen is not mature enough to be trusted with these decisions and may lose the privilege of using the family car for a time. Again, consistency is key in keeping rules in place.

Like rules, roles and responsibilities will vary from family to family. Many families use a chore chart of some kind as a visual aid to remind each member of their roles. A chore chart can be made by first listing all of the chores or duties that need to be filled in the household. This may include school, homework, cleaning, laundry, cooking, yard work, jobs, extracurricular activities, pet care, and regular maintenance.

Next, each chore or duty is evaluated to see which family member can and should complete it. Each child, for example will need to do school and homework. A mother, father, or both will need to work. A teen may also hold a job. The football player will have regular practice, while a pet owner should be responsible for that pet's care.

Remaining chores may be further distributed by considering the age and abilities of family members. A toddler won't be able to wash the dishes, but can help set or clear the table. An elementary-aged child probably won't be able to mow the lawn, but a teenager can. When making a chore chart, consider the strengths, needs, and age of each family member. Play to strengths on your team, allowing each person to do something their natural skills will help with. As children grow, change or add to their chores, teaching them each responsibility in the home over time. Parents should teach children how to correctly complete each chore. This way, when a child has their own home, they know how to correctly do each task.

Finally, implement the chore chart. You can create a visual aid (e.g. chalkboard, Velcro tabs, checklist, sticker chart), or a virtual one (e.g. chore chart on a tablet) to help each family member understand their daily tasks. Include things like brushing teeth, showering, and cleaning up their things on charts for younger children. Older children can include school and extracurricular activities on their chart. However the chart is displayed, encourage and remind your child to complete their tasks each day. Over time, this will build skills and teach your child that their contribution is an important part of keeping the family and home running.

Additionally, families may or may not choose to implement an allowance. If an allowance is implemented, it should reflect the amount and difficulty of chores each child does. Allowance should be the child's earned money and should be treated as such. Giving your child the ability to choose how to save, spend, or donate their money allows them learn money skills over time with little risk. Encourage your child to save for large items they want and do extra chores to earn more. Teaching the value of working for something they want is a life-long skill.

****Lesson Assignment:** With a parent, discuss rules and responsibilities in your family. Talk about what you think is fair and what you may feel is not fair. Discuss questions and concerns you may have and work together to adjust items to better fit your age and maturity level. This may mean taking on more chores, a later bedtime or curfew, or a job outside of the home.

205. Family Communication

As with any team, communication is a critical component in success. No team is perfect and no family is without disagreements. Many of these disagreements can be settled through healthy, honest, and active communication. In active communication, the goal is not to prove who is right, it is simply to understand the thought process and viewpoint of each person. Mutual understanding and a loving relationship will help open the door for compromises or changes that can benefit both parties.

Family communication can include several different aspects of life. It may mean sharing what's on the calendar for the day, discussing which chores need to be done, talking about hobbies and interests, or sharing emotions and feelings with each other. It may also mean seeking advice from a spouse or parent, discussing something that is bothering you, or offering help to someone else. All family communication should progress with the idea that family members are on the same team and should help each other. This idea should be backed by open discussion, apologies when needed, and actions that support trust between each member of the family.

When we think of communication, most of us think of verbal communication: the words that we say. Verbal communication allows us to share ideas, thoughts, and emotions with others. Likewise, they can share what they are thinking with us. No one can read the mind of another person, even if they are very close. Verbal communication is necessary within families as it can help us understand each other. Being honest and respectful in what you say can help build relationships and solve problems. Many times, verbal communication helps us understand that the other person isn't trying to bother us, they simply didn't know what they were doing bothered us so much.

Most of our communication, however, is non-verbal. This includes facial expressions, gestures, body language, tone and volume of our voice, eye contact (or lack of), space between you and the person you are communicating with, touch, appearance, and use of objects. Often times, we can tell how someone feels by the face they are making, the way they hold their body, and the tone and volume of their voice. If they are tense and loud, they are likely angry. If they are slumped, quiet, and crying, they may be sad. Jumping and smiling signal that they are happy. If they are standing nearby and putting their hand on our shoulder or back, they may be providing support.

Most of the time, our brains perform and interpret this information without us really thinking about it. This is why we sometimes find ourselves yelling in an argument without even realizing we raised our voice. However, being aware of non-verbal communication can help us better communicate with others. First, we can better control our own non-verbal cues, helping to calm situations and better convey our emotions and thoughts to others. Secondly, it can help us pick up on

cues from others, especially those we know well. If you begin to notice your mom raises her voice more often when she is hungry, you can suggest a snack or meal rather than becoming defensive. If a brother is quiet and sad, you may want to go ask why he is sad and try to offer support.

While non-verbal communication is important, the way we interpret it may not always be accurate. Many times it is simply a clue and verbal communication should be used to fully understand each other. All communication relies on openness and trust between those talking and a desire to work together towards a common goal.

****Lesson Assignment:** Take time today to consciously notice communication in your family. Watch for verbal and non-verbal communication and note how it helps or hurts those in your household. If you can, make a small change to your non-verbal communication and note how it changes the way you talk to those in your family and how they react. Additionally, note a non-verbal cue from a family member and verbally point it out to them, along with how you interpret it. Verbally discuss how that person is feeling and how that cue led you to believe your interpretation. Note the differences and similarities in your interpretation vs. their verbal explanation.