



Cooking Merit Badge

Troop 344 & 9344
Pemberville, OH





Requirements

1. **Health and Safety.** Do the following:

- a. Explain to your counselor the most likely hazards you may encounter while participating in cooking activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards
- b. Show that you know first aid for and how to prevent injuries or illnesses that could occur while preparing meals and eating, including burns and scalds, cuts, choking, and allergic reactions.
- c. Describe how meat, fish, chicken, eggs, dairy products, and fresh vegetables should be stored, transported, and properly prepared for cooking. Explain how to prevent cross-contamination.
- d. Discuss with your counselor food allergies, food intolerance, and food-related illnesses and diseases. Explain why someone who handles or prepares food needs to be aware of these concerns.
- e. Discuss with your counselor why reading food labels is important. Explain how to identify common allergens such as peanuts, tree nuts, milk, eggs, wheat, soy, and shellfish.



Requirements

2. Nutrition. Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, give five examples for EACH of the following food groups, the recommended number of daily servings, and the recommended serving size:
 1. Fruits
 2. Vegetables
 3. Grains
 4. Proteins
 5. Dairy
- b. Explain why you should limit your intake of oils and sugars.
- c. Determine your daily level of activity and your caloric need based on your activity level. Then, based on the MyPlate food guide, discuss with your counselor an appropriate meal plan for yourself for one day.
- d. Discuss your current eating habits with your counselor and what you can do to eat healthier, based on the MyPlate food guide.
- e. Discuss the following food label terms: calorie, fat, saturated fat, trans fat, cholesterol, sodium, carbohydrate, dietary fiber, sugar, protein. Explain how to calculate total carbohydrates and nutritional values for two servings, based on the serving size specified on the label.



Requirements

3. **Cooking Basics.** Do the following:

- a. Discuss EACH of the following cooking methods. For each one, describe the equipment needed, how temperature control is maintained, and name at least one food that can be cooked using that method: baking, boiling, broiling, pan frying, simmering, steaming, microwaving, grilling, foil cooking, and use of a Dutch oven.
- b. Discuss the benefits of using a camp stove on an outing vs. a charcoal or wood fire.
- c. Describe with your counselor how to manage your time when preparing a meal so components for each course are ready to serve at the same time.



Requirements

- 4. Cooking at Home.** Using the MyPlate food guide or the current USDA nutrition model, plan a menu for three full days of meals (three breakfasts, three lunches, and three dinners) plus one dessert. Your menu should include enough to feed yourself and at least one adult, keeping in mind any special needs (such as food allergies) and how you kept your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.

Then do the following:

- a. Create a shopping list for your meals showing the amount of food needed to prepare and serve each meal, and the cost for each meal.
- b. Share and discuss your meal plan and shopping list with your counselor.



Requirements

4. Cooking at Home. Using the MyPlate food guide or the current USDA nutrition model, plan a menu for three full days of meals (three breakfasts, three lunches, and three dinners) plus one dessert. Your menu should include enough to feed yourself and at least one adult, keeping in mind any special needs (such as food allergies) and how you kept your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.

Then do the following:

- d. Using at least five of the 10 cooking methods from requirement 3, prepare and serve yourself and at least one adult (parent, family member, guardian, or other responsible adult) one breakfast, one lunch, one dinner, and one dessert from the meals you planned.
- e. Time your cooking to have each meal ready to serve at the proper time. Have an adult verify the preparation of the meal to your counselor.
- f. After each meal, ask a person you served to evaluate the meal on presentation and taste, then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how better planning and preparation help ensure a successful meal.



Requirements

5. **Camp Cooking.** Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, plan a menu that includes four meals, one snack, and one dessert for your patrol (or a similar size group of up to eight youth, including you) on a camping trip. These four meals must include two breakfasts, one lunch, and one dinner. Additionally, you must plan one snack and one dessert. Your menus should include enough food for each person, keeping in mind any special needs (such as food allergies) and how you keep your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.
- b. Find or create recipes for the four meals, the snack, and the dessert you have planned. Adjust menu items in the recipes for the number to be served. Create a shopping list and budget to determine the per-person cost.
- c. Share and discuss your menu plans and shopping list with your counselor.



Requirements

5. **Camp Cooking.** Do the following:

- d. In the outdoors, using your menu plans and recipes for this requirement, cook two of the four meals you planned using either a camp stove OR backpack stove. Use a skillet over campfire coals OR a Dutch oven for the third meal, and cook the fourth meal in a foil pack OR on a skewer. Serve all of these meals to your patrol or a group of youth.**
- e. In the outdoors, using your menu plans and recipes for this requirement, prepare one snack and one dessert. Serve both of these to your patrol or a group of youth.**
- f. After each meal, have those you served evaluate the meal on presentation and taste, and then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how planning and preparation help ensure successful outdoor cooking.

**Where local regulations do not allow you to build a fire, the counselor may adjust the requirement to meet the law. The meals in requirements 5 and 6 may be prepared for different trips and need not be prepared consecutively. Scouts working on this badge in summer camp should take into consideration foods that can be obtained at the camp commissary.



Requirements

5. **Camp Cooking.** Do the following:

- g. Explain to your counselor how you cleaned the equipment, utensils, and the cooking site thoroughly after each meal. Explain how you properly disposed of dishwater and of all garbage.
- h. Discuss how you followed the Outdoor Code and no-trace principles when preparing your meals.



Requirements

6. Trail and backpacking meals. Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, plan a menu for trail hiking or backpacking that includes one breakfast, one lunch, one dinner, and one snack. These meals must not require refrigeration and are to be consumed by three to five people (including you). Be sure to keep in mind any special needs (such as food allergies) and how you will keep your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.
- b. Create a shopping list for your meals, showing the amount of food needed to prepare and serve each meal, and the cost for each meal.
- c. Share and discuss your meal plan and shopping list with your counselor. Your plan must include how to repackage foods for your hike or backpacking trip to eliminate as much bulk, weight, and garbage as possible.



Requirements

6. Trail and backpacking meals. Do the following:

- d. While on a trail hike or backpacking trip, prepare and serve two meals and a snack from the menu planned for this requirement. At least one of those meals must be cooked over a fire, or an approved trail stove (with proper supervision).**
- e. After each meal, have those you served evaluate the meal on presentation and taste, then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how planning and preparation help ensure successful trail hiking or backpacking meals.
- f. Discuss how you followed the Outdoor Code and no-trace principles during your outing. Explain to your counselor how you cleaned any equipment, utensils, and the cooking site after each meal. Explain how you properly disposed of any dishwater and packed out all garbage.

**Where local regulations do not allow you to build a fire, the counselor may adjust the requirement to meet the law. The meals in requirements 5 and 6 may be prepared for different trips and need not be prepared consecutively. Scouts working on this badge in summer camp should take into consideration foods that can be obtained at the camp commissary.



Requirements

- 7. Food-related careers.** Find out about three career opportunities in cooking. Select one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

Basics of Cooking

- Safety
- Food Nutrition
- Meal Planning
- Food Preparation



Safety



Requirements

1. **Health and Safety.** Do the following:

- a. Explain to your counselor the most likely hazards you may encounter while participating in cooking activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards
- b. Show that you know first aid for and how to prevent injuries or illnesses that could occur while preparing meals and eating, including burns and scalds, cuts, choking, and allergic reactions.
- c. Describe how meat, fish, chicken, eggs, dairy products, and fresh vegetables should be stored, transported, and properly prepared for cooking. Explain how to prevent cross-contamination.
- d. Discuss with your counselor food allergies, food intolerance, and food-related illnesses and diseases. Explain why someone who handles or prepares food needs to be aware of these concerns.
- e. Discuss with your counselor why reading food labels is important. Explain how to identify common allergens such as peanuts, tree nuts, milk, eggs, wheat, soy, and shellfish.

Heat Sources

Common Cooking Injuries

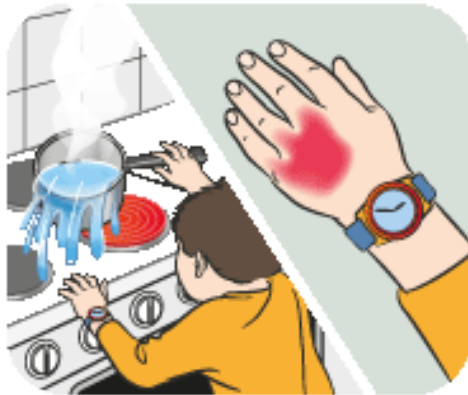
➤ Burns and Scalds:

- Burns take place when contact is made with hot objects, chemicals, electrical sources, radiated heat, frozen surfaces, friction or radiation.
- Scalds are from boiling fluids or steam.



First Aid for Burns and Scalds

First steps when a burn happens



A burn is an **injury to the skin from something hot** – a heater, oven, hot drink or boiling water in a kettle or saucepan. Scalds are the most common burn among children. They're caused by hot liquids.



If your child gets a burn or scald, first make sure the area is safe and there is no risk of further injury to your child or yourself. Take your child to a safe place if possible.



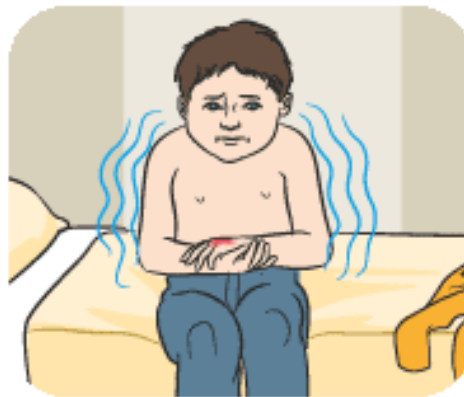
If the burn or scald is over your child's clothing, remove the clothing immediately, if it isn't stuck to the burn. Remove watches or jewellery. Leave any blisters alone.

First Aid for Burns and Scalds

First aid treatment



Treat the burn under **running water** for 20 minutes. Do this straight away. This treatment is still useful up to three hours after the burn.



Cool the burn, not the child. If the burn is large, stop cooling it after 20 minutes. This is because **hypothermia** can happen quickly in children.



Cover the burn with a loose, light, non-sticky dressing such as plastic wrap or a clean, wet cloth. Raise burned limbs.

First Aid for Burns and Scalds

When to get medical attention



Don't apply ice, iced water, lotions, moisturisers, oil, ointments, creams or powders to the burn. **Butter or flour can make the damage worse.**



Call an ambulance if the burn is to your child's face, airway, hands or genitals, or if the burn is larger than the size of your child's hand.



Go to a doctor or hospital if the burn is the size of a 20-cent piece or larger, or if it's deep, raw, angry or blistered. Also go if the pain persists or is severe, or you're not sure how bad the burn is.

Heat Sources

Preventing Burn Injuries

- Basic guidelines to follow when using heat to prepare foods:
 - Do not leave a lit stove unattended.
 - Dress appropriately when cooking; try not to wear loose clothing such as an open sweater or open jacket.
 - You do not want anything to be able to dangle into fire/stove etc.
 - Also possibly getting pulled in by a power kitchen tool or catching a pot on the stove.
 - Keep stove/oven area clean.
 - Do not keep towels, oven mitts, or pot holders close to heat source.

Heat Sources

Preventing Burn Injuries

- Take time to prepare meals without rushing.
- Always use pot holders that are in good repair.
- Keep pot handles turned toward the back of the stove.
- Cook on rear burners when ever possible, but avoid reaching over an open flame or hot burner.
- Use caution when moving heavy pots of liquids from the stove.
- Keep all heated liquid and food out of children's reach, and never hold anything hot while carrying a child.

Heat Sources

Preventing Burn Injuries

➤ In Camp

- Ensure camp stoves are working properly.
- Ensure all safety fire standards are adhered to when cooking around an open fire.
- Ensure pots/pans are stabilized in open fire area so as not to fall and burn anyone.
- Clear all flammable vegetation 5" from fire.
- Attend to fire at all times.
- Keep fire fighting tools handy (water and/or shovel).
- Leave fire only when it is out.

Sharp Instruments

Common Cooking Injuries

➤ How to treat cuts:

- As soon as you cut yourself, wash the wound immediately with soap and water in order to prevent infection.
- Apply a dry, clean dressing and hold pressure directly to the wound.
- If the bleeding is very bad you should go to the emergency room immediately.
- Cuts longer than 1 cm may need stitches; visit the doctor within the first 12 hours of cutting yourself.



Sharp Instruments

Common Cooking Injuries

➤ How to prevent cuts:

- **Always use sharp knives.** A sharp knife requires less pressure in cutting than a dull knife does, and your hand is less likely to slip.
- **Cut correctly.** Don't hold something in your hand when cutting it. Use a large cutting board. Curl your fingers under when holding food and cut away from you. Keep your fingers away from the blade.
- **Keep your eyes on your cutting.** It's easy to get distracted when preparing meals.

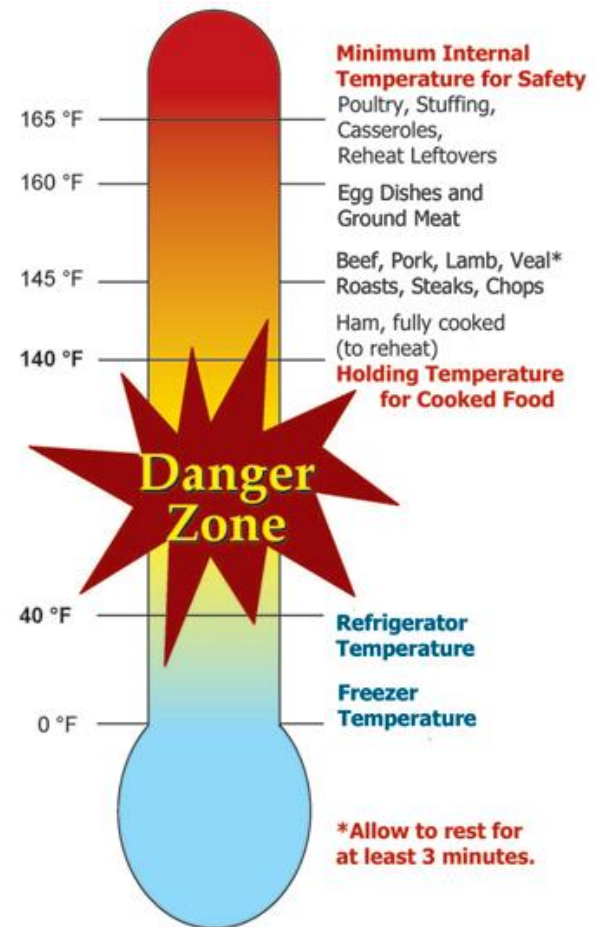
Requirements

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- b. Show that you know first aid for and how to prevent injuries or illnesses that could occur while preparing meals and eating, including burns and scalds, cuts, choking, and allergic reactions.
- c. Describe how meat, fish, chicken, eggs, dairy products, and fresh vegetables should be stored, transported, and properly prepared for cooking. Explain how to prevent cross-contamination.
- d. Discuss with your counselor food allergies, food intolerance, and food-related illnesses and diseases. Explain why someone who handles or prepares food needs to be aware of these concerns.
- e. Discuss with your counselor why reading food labels is important. Explain how to identify common allergens such as peanuts, tree nuts, milk, eggs, wheat, soy, and shellfish.

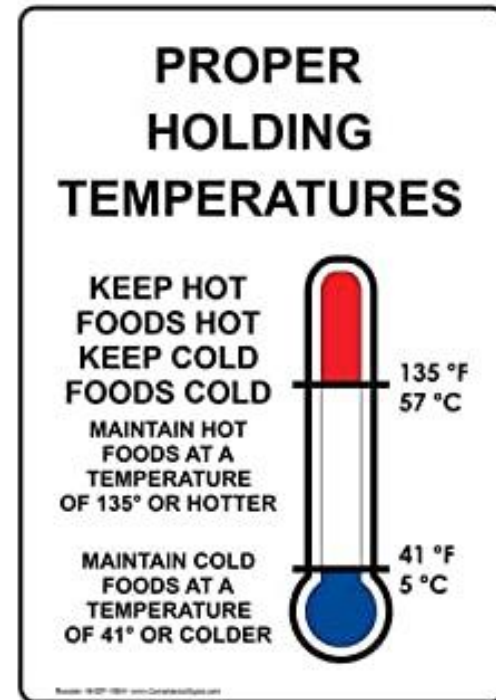
Food Safety

- Meats and dairy items must be kept cold before use.
- Meat removed from wrapper must be kept separate.
- Meat should be cooked before it is no longer cool.
- Any cooked foods need to be properly stored and refrigerated to eliminate risks of growing bacteria.



Food Safety

- Keep cold foods cold.
- Keep hot foods hot.
- Make certain safety seals on food in jars, containers, etc. are intact.
- Freeze meat or poultry that will not be used within 2-3 days.
- Refrigerate any leftovers and discard if not eaten within three days or more.



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Food Allergies and Food Intolerance

➤ Allergies:

- Immune system overreacts (Anaphylactic Shock).
- Common severe food allergies: nuts, eggs, dairy, shellfish.

➤ Food intolerance:

- Cannot digest components.
- Common food intolerance: gluten (celiac disease), lactose.

MAIN CULPRITS

Foods responsible for intolerance or allergy

Eight major foods or food groups believed to account for 90 per cent of food allergies.



MILK



WHEAT



EGGS



SOYBEANS



PEANUTS



TREE NUTS
(almond, cashew, pecan, walnut, hazelnut, macadamia)



SHELL FISH
(shrimp, crab, lobster)



FISHES

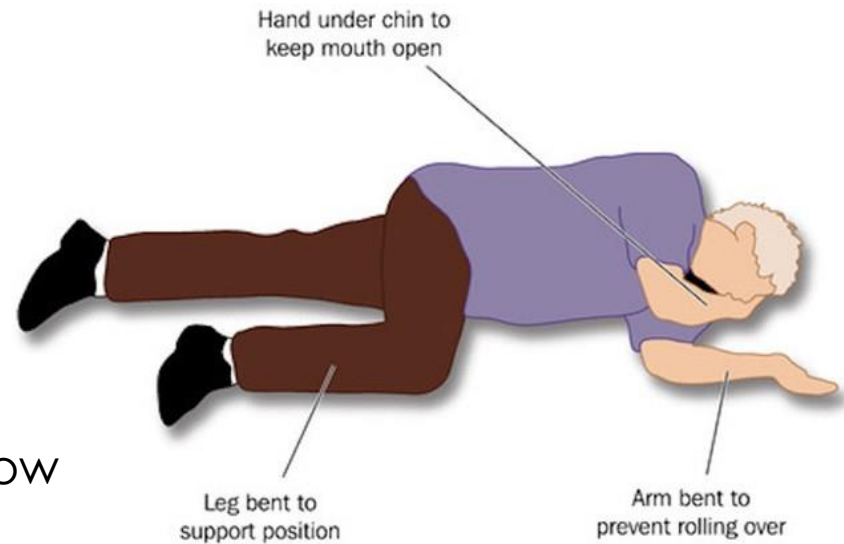
Symptoms of Allergic Reactions

- Difficulty breathing, wheezing.
- Tightness in throat or chest.
- Swelling of the face and neck, puffy eyes.



First Aid for Anaphylaxis (Severe Allergic Reactions)

- Call 911.
- Lay person flat – do not allow them to stand or walk.
 - If unconscious, place in recovery position.
 - If breathing is difficult allow them to sit up.
- Give adrenaline autoinjector (EpiPen).
- Monitor the victim's breathing and be prepared to give CPR.



First Aid for Anaphylaxis (Severe Allergic Reactions)

- Emergency Epinephrine Kit (EpiPen)
- May be carried by people with severe allergies.
- Help the victim open and use the kit as needed.



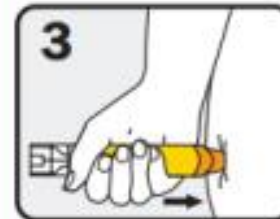
How to give EpiPen®



Form fist around EpiPen® and PULL OFF BLUE SAFETY RELEASE



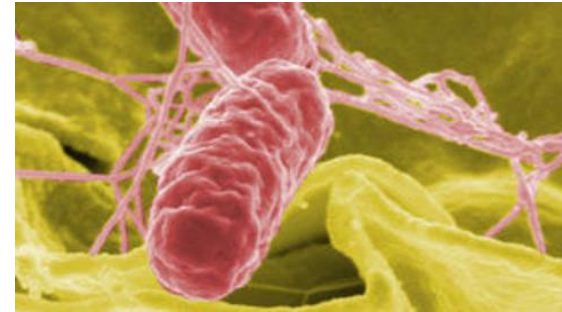
Hold leg still and PLACE ORANGE END against outer mid-thigh (with or without clothing)



PUSH DOWN HARD until a click is heard or felt and hold in place for 3 seconds REMOVE EpiPen®

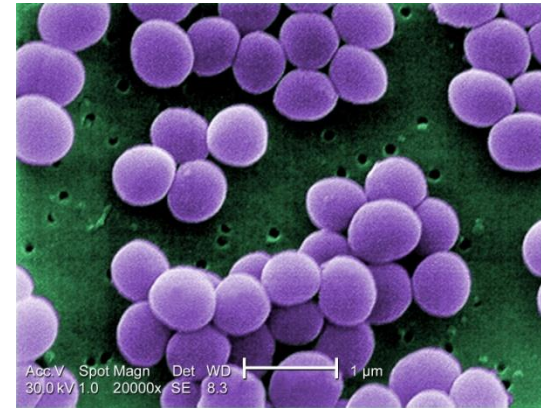
Food Sickness from Improper Handling

- **Salmonella Enteritis**- bacteria linked to raw, uncooked eggs, poultry, unwashed raw vegetables and fruits.
- Symptoms- nausea, vomiting, fever, abdominal pain, diarrhea, dehydration, weakness and loss of appetite.
- Prevention- cook food through, wash all fruits and vegetables, wipe up raw meat juice from counter and sanitize, clean utensils etc.



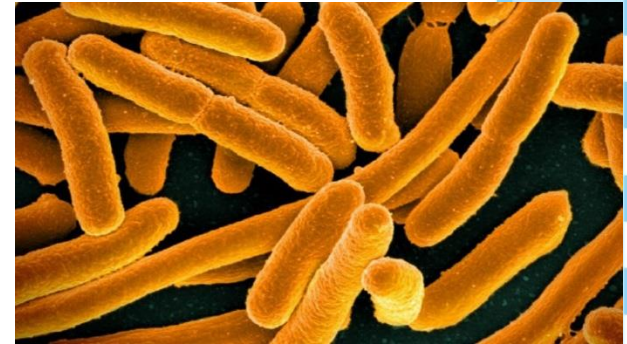
Food Sickness from Improper Handling

- **Staphylococcal Enteritis-** bacteria multiplies in warm temperatures and thrives on protein.
- Symptoms- nausea, diarrhea, headache, fever, chills, weakness and dizziness.
- Prevention- wash hands and utensils before serving food, cook meat thoroughly, refrigerate leftovers promptly and in covered containers.



Food Sickness from Improper Handling

- **Escherichia Coli Enteritis (E. Coli)** - bacteria that attacks the intestinal tract.
 - It can be transmitted from one person to another.
 - It grows at temperatures of 44 degrees and above.
 - It can cause serious illness for elderly adults and young children.
- Symptoms - nausea, vomiting, diarrhea, fever, and abdominal cramps.
- Prevention - wash hands, foods need to be prepared in sanitary conditions, cook food through, and refrigerate foods below 44 degrees.



Food Sickness from Improper Handling

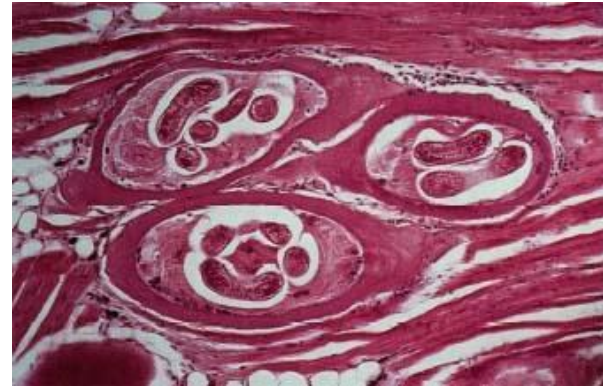
- **Botulism-** this is a deadly disease. Ingestion of bacteria.
- Symptoms- dry mouth, double vision, nausea, vomiting, diarrhea, abdominal cramps, sore throat, dizziness, constipation, muscle weakness, muscle paralysis, difficulty swallowing and breathing.
- Prevention- never use food from bulging containers/cans, strange odor or appearance, cool leftovers quickly, and reheat all refrigerated leftover foods.



Food Sickness from Improper Handling

➤ **Trichinosis**- is caused by the parasite *Trichinella spiralis*.

- Its larvae can remain alive in humans tissue for years.
- You get it from eating undercooked or raw meat with the parasite.



➤ Symptoms- stomach ache, nausea, vomiting, and diarrhea.

- This occurs within one week of digesting the parasite.
- Usually from pork.

➤ Prevention- Cook meats all the way through, especially pork.

Food Sickness from Improper Handling

➤ **Hepatitis** - Hepatitis A is one of five viruses that causes inflammation of the liver.

- The others are B, C, D and E.
- Hepatitis A is a mild illness characterized by sudden fever, nausea, abdominal discomfort, followed by days of jaundice.



➤ **Prevention** - Wash hands with soap and warm water before preparing and eating food, scrub under fingernails, cook shellfish thoroughly, drink water from approved sources only, keep bathrooms clean and disinfected.

Food Safety Summary

➤ Prevention:

- Wash hands
- Cook food
- No cross-contamination
- Immunization
- Good food management
- Know where your food comes from



Requirements

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- b. Show that you know first aid for and how to prevent injuries or illnesses that could occur while preparing meals and eating, including burns and scalds, cuts, choking, and allergic reactions.
- c. Describe how meat, fish, chicken, eggs, dairy products, and fresh vegetables should be stored, transported, and properly prepared for cooking. Explain how to prevent cross-contamination.
- d. Discuss with your counselor food allergies, food intolerance, and food-related illnesses and diseases. Explain why someone who handles or prepares food needs to be aware of these concerns.
- e. Discuss with your counselor why reading food labels is important. Explain how to identify common allergens such as peanuts, tree nuts, milk, eggs, wheat, soy, and shellfish.

Reading a Label for Allergens

- Bold text highlights allergens that are contained within the product.
- Some products will inform you if it is made in a facility that processes other products that contain allergens.

INGREDIENTS

Water, Carrots, Onions, Red Lentils (4.5%) Potatoes, Cauliflower, Leeks, Peas, Cornflower, **Wheat** flour, Cream (**milk**), Yeast Extract, Concentrated Tomato Paste, Garlic, Sugar, **Celery** Seed, Sunflower Oil, Herb and Spice, White Pepper, Parsley

ALLERGY ADVICE

For allergens, see ingredients in **bold**

INGREDIENTS: Whole-grain sprouted brown rice protein concentrate, natural flavor, stevia.

ALLERGEN INFORMATION: This product is manufactured in a facility that processes other products which may contain soy, dairy, wheat, tree nuts, shellfish, fish, peanuts, and eggs and may contain traces of all of the above.



**ALLERGEN LABELING FOR PACKAGED FOODS
SOLD IN THE US IS DICTATED BY AN ACT OF
CONGRESS KNOWN AS FALCPA**

FALCPA regulations apply only to foods regulated by the FDA, which do *not* include meat, poultry and eggs.



**THE LABEL CAN WARN YOU THAT THE
PRODUCT IS NOT SAFE**

Manufacturers must clearly indicate when any of the following eight allergens are *ingredients* of the product: peanuts, tree nuts, eggs, milk, wheat, soybeans, fish, and shellfish.



**THE LABEL CAN'T TELL YOU
THAT THE PRODUCT IS SAFE**

Manufacturers are ***not*** required to tell you when there is a possibility of cross-contamination with these allergens!

Additional warnings like "*May contain...*" and "*Manufactured on equipment with...*" are entirely voluntary. There are no standards for when they should be used, how they should be worded, and where they should be placed.

THEIR ABSENCE DOES NOT MEAN THE PRODUCT IS SAFE!

Understand the limitations of the label when concerned with food allergies.

Discussion

- What hazards are possible?
- How would you prevent these hazards?
- First aid for these hazards?
- How do you manage: meat, fish, eggs, dairy, fresh vegetables? Why
- What can you do to prevent food-related illnesses?
- What should you do about food allergies and food intolerance?

Nutrition





Requirements

2. Nutrition. Do the following:

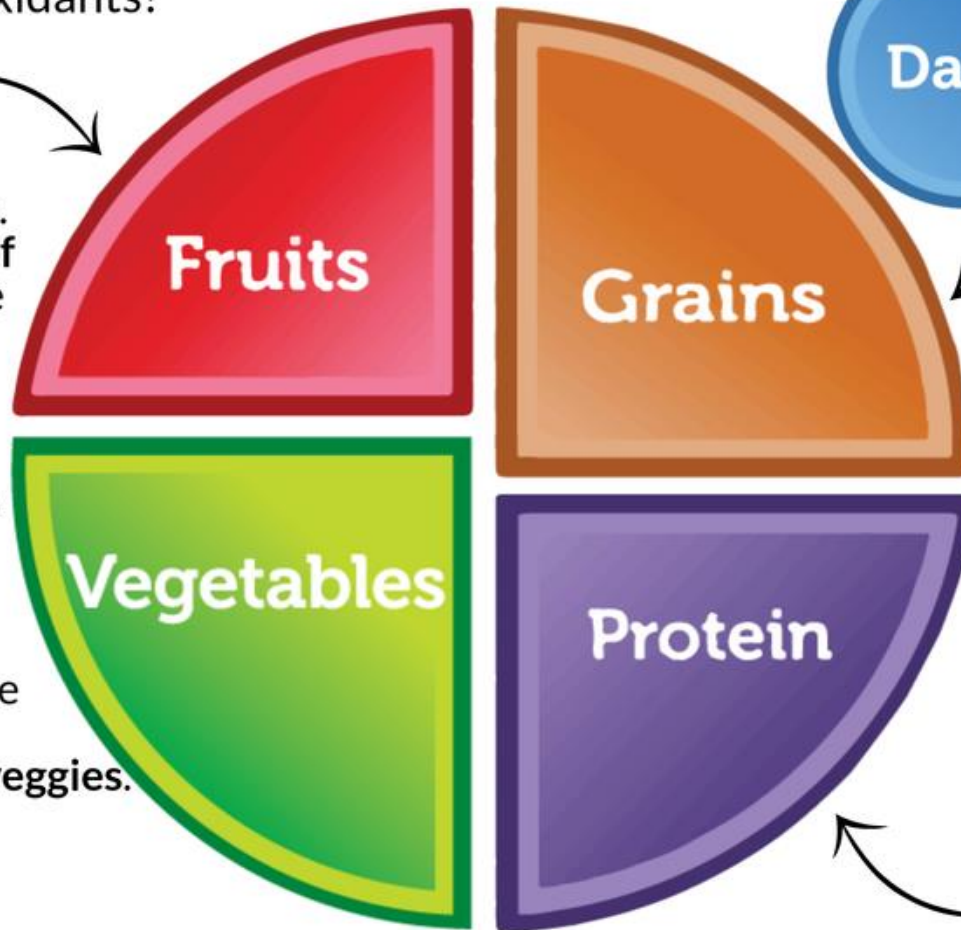
- a. Using the MyPlate food guide or the current USDA nutrition model, give five examples for EACH of the following food groups, the recommended number of daily servings, and the recommended serving size:
 1. Fruits
 2. Vegetables
 3. Grains
 4. Proteins
 5. Dairy
- b. Explain why you should limit your intake of oils and sugars.
- c. Determine your daily level of activity and your caloric need based on your activity level. Then, based on the MyPlate food guide, discuss with your counselor an appropriate meal plan for yourself for one day.
- d. Discuss your current eating habits with your counselor and what you can do to eat healthier, based on the MyPlate food guide.
- e. Discuss the following food label terms: calorie, fat, saturated fat, trans fat, cholesterol, sodium, carbohydrate, dietary fiber, sugar, protein. Explain how to calculate total carbohydrates and nutritional values for two servings, based on the serving size specified on the label.

MyPlate: A Guide

Make half your plate fruits and veggies. They're packed with fiber & antioxidants!

Fruit:
Eat fruits of all colors. Go for **fruit instead of juice**, which has more fiber and fewer calories.

Vegetables:
The more colors and types that you eat, the better! Aim to get mostly **non-starchy veggies**.



Dairy:
3 servings per day gets you the calcium you need. Choose low-fat for fewer calories.

Grains:
Eat mostly **whole grains**. Refined grains, like white bread and white rice, have less nutrition. Whole grains have more **fiber**, iron, and B vitamins.

Protein:
A palm-sized amount at lunch and dinner is all you need. Beans, nuts, fish, and chicken are good, lean choices.

Recommended Number of Servings

Food group	1,600-calorie diet	2,000-calorie diet
Grains (mainly whole grains)	6 a day	6-8 a day
Vegetables	3-4 a day	4-5 a day
Fruits	4 a day	4-5 a day
Low-fat or fat-free milk and milk products	2-3 a day	2-3 a day
Lean meats, poultry and fish	3-4 one-ounce servings or fewer a day	6 one-ounce servings or fewer a day
Nuts, seeds and legumes	3-4 a week	4-5 a week
Fats and oils	2 a day	2-3 a day
Sweets and added sugars	3 or fewer a week	5 or fewer a week

MyPlate Guide to Portion Sizes

- Fruit section = 1/4 cup.
- Vegetable section = 1/2 cup.
- Grains section = 1/2 cup.
- Protein section = 1/4 cup.

Examples of Single Servings for Each Food Group

➤ Grains

- 1 slice whole-wheat bread
- 1 ounce dry whole-grain cereal
- 1/2 cup cooked cereal, rice or pasta (preferably whole grain)

➤ Vegetables

- 1 cup raw leafy green vegetable
- 1/2 cup cut-up raw or cooked vegetables
- 1/2 cup (4 fluid ounces) low-sodium vegetable juice

➤ Fruits

- 1 medium fruit
- 1/4 cup dried fruit
- 1/2 cup fresh, frozen or canned fruit
- 1/2 cup (4 fluid ounces) 100% fruit juice

Examples of Single Servings for Each Food Group

➤ **Milk and milk products**

- 1 cup (8 fluid ounces) low-fat or fat-free milk
- 1 cup low-fat or fat-free yogurt
- 1 1/2 ounces low-fat or fat-free cheese

➤ **Meat, poultry and fish**

- 1 ounce cooked lean meat, skinless poultry or fish
- 1 egg
- 2 egg whites

➤ **Nuts, seeds and legumes**

- 1/3 cup (1 1/2 ounces) nuts
- 2 tablespoons peanut butter
- 2 tablespoons (1/2 ounce) seeds
- 1/2 cup cooked legumes (dried beans or peas)

Examples of Single Servings for Each Food Group

➤ **Fats and oils**

- 1 teaspoon soft margarine
- 1 teaspoon vegetable oil
- 1 tablespoon mayonnaise
- 2 tablespoons low-fat salad dressing (or 1 tablespoon regular dressing)

➤ **Sweets and added sugars**

- 1 tablespoon sugar
- 1 tablespoon jelly or jam
- 1/2 cup sorbet
- 1 cup (8 fluid ounces) sugar-sweetened lemonade

Get To Know Your Food Groups

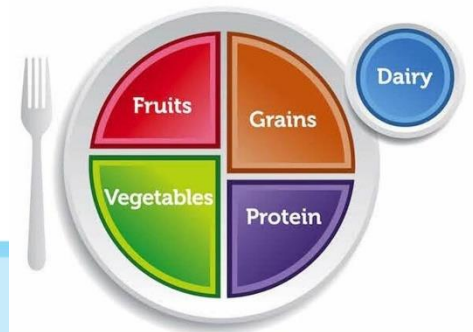
- Created by U.S. Dept. of Agriculture
- Types of foods people should eat as well as quantity for a healthy life.
- Emphasizes fruits; vegetables, whole grains, low fat dairy products, lean meats, poultry, fish, beans, eggs and nuts.



Fruits

➤ Focus on fruits

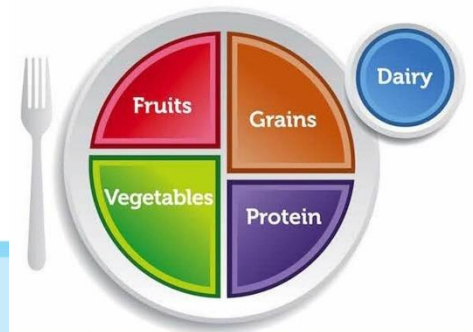
- Fruits can be fresh, frozen, canned or dried.
- Great substitutes for sugary sweets.
- **Berries:** blueberries, raspberries, strawberries.
- **Citrus:** oranges, grapefruit, tangerines, pineapple.
- **Melons:** cantaloupe, honeydew
- **Pitted:** apricots, avocado, cherries, mangoes, prune
- **Others:** apples, banana, grapes, kiwi fruit, pears.



Vegetables

➤ Vary your veggies

- Fresh is best, then frozen and canned last.
- **Greens:** broccoli, collard greens, turnip, leafy lettuce.
- **Orange:** acorn squash, butternut squash, pumpkin.
- **Dried Beans/Peas:** black eyed peas, garbanzo, lentils, navy bean, soybeans etc.
- **Starchy:** sweet corn, green peas, lima beans, potatoes
- **Other Vegetables:** artichokes, asparagus, beets, brussel sprouts, cabbage, cauliflower, celery, cucumbers, eggplant, green beans, green or red peppers, okra and radish.

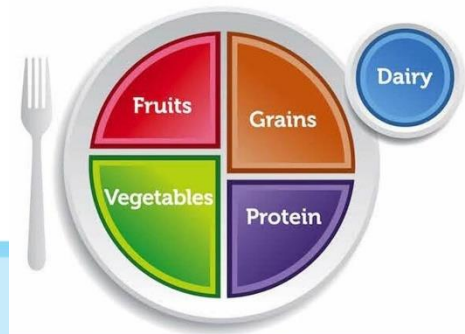
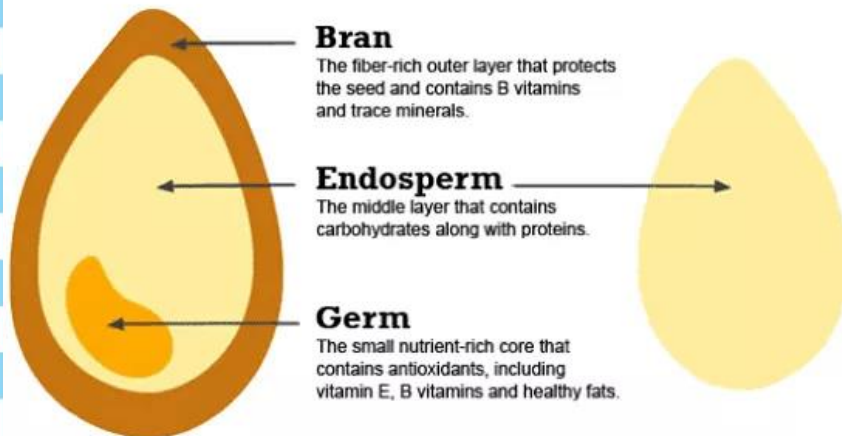


Grains

- Two subgroups in Grain
 - **Whole Grains** are complex carbohydrates. Provide energy and stamina for the body.
 - Examples are whole wheat bread, oatmeal, brown rice.
 - Good source of fiber, iron and many B vitamins.
 - These grains take the body longer to process. Good hiking food.

Whole Grain

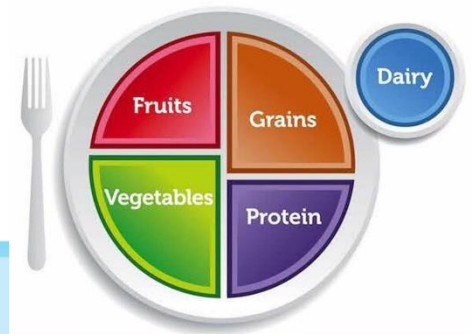
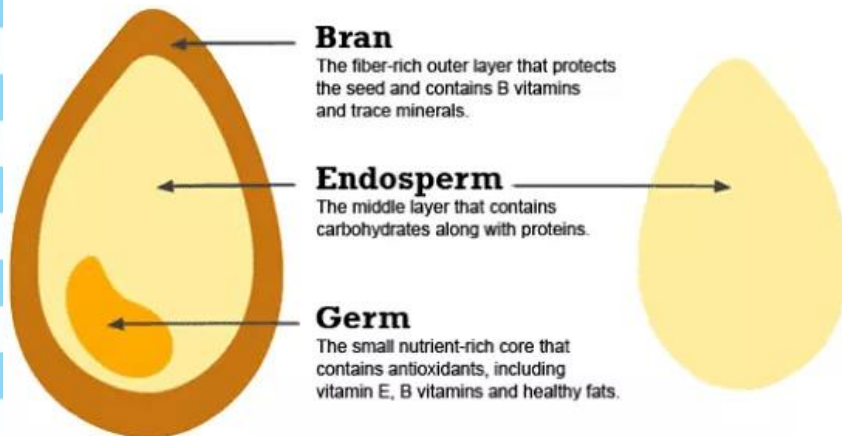
vs. "White" Grain



Grains

- Two subgroups in Grain
 - **Refined Grains** are milled and processed.
 - All of the bran, many vitamins and nutrients are removed.
 - They are enriched with vitamins, but not the bran.
 - Examples are noodles, rice, pasta, macaroni, white flour.

Whole Grain vs. "White" Grain



Replace Refined Grains

twitter.com/HealthNutCorner



White Flour
• Enriched Flour
• All Purpose Flour



White Rice



Parboiled Rice



Cream of Wheat



Degermed Cornflour



Use Whole-Grains



Whole-Wheat
• Spelt



Brown Rice



Wild Rice



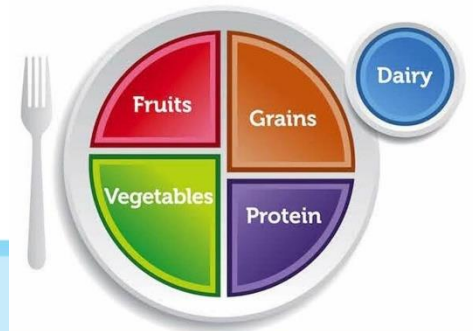
Oats



Whole-Grain Cornmeal

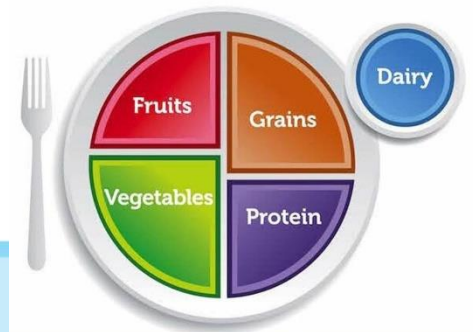
Protein Foods

- **Seafood:** salmon, tuna, trout, tilapia, sardines, herring, mackerel, shrimp, crab, oysters, mussels, etc.
- **Meat, Poultry, and Eggs:** beef, chicken, turkey, pork, eggs, etc.
- **Nuts, Seeds, and Soy:** nuts, nut butters, seeds, soy products, etc.
- These products supply most of your protein to keep bones and muscles strong.
 - It also provides energy.
- Utilize lean cuts of meat and poultry.
- Some meats that are not lean are extremely fattening like bacon, sausage, hotdogs, processed meats.
 - These should be used sparingly.



Dairy

- Calcium rich foods
- In this group all products are made of milk.
 - Yogurt, cheese, cottage cheese, puddings, ice cream, and cream soups.
- Use low fat or skim as much as possible, regular milk is very high in calories and fat.
- Yogurts, sweetened drink/chocolate, strawberry milk high in sugar.
 - Limit to skim to reduce calories.





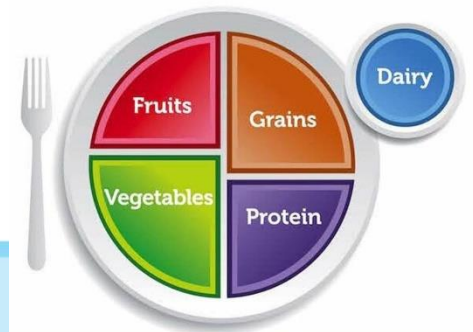
Requirements

2. Nutrition. Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, give five examples for EACH of the following food groups, the recommended number of daily servings, and the recommended serving size:
 1. Fruits
 2. Vegetables
 3. Grains
 4. Proteins
 5. Dairy
- b. Explain why you should limit your intake of oils and sugars.
- c. Determine your daily level of activity and your caloric need based on your activity level. Then, based on the MyPlate food guide, discuss with your counselor an appropriate meal plan for yourself for one day.
- d. Discuss your current eating habits with your counselor and what you can do to eat healthier, based on the MyPlate food guide.
- e. Discuss the following food label terms: calorie, fat, saturated fat, trans fat, cholesterol, sodium, carbohydrate, dietary fiber, sugar, protein. Explain how to calculate total carbohydrates and nutritional values for two servings, based on the serving size specified on the label.

Fats, Oils, and Sweets

- Fats, oils, and sweets give us calories.
- Most of these foods do not contain many vitamins or minerals so they are called "empty calorie" foods.
- When we eat them along with foods like grains, fruits, vegetables, milk and meat products they are part of a healthy diet.
- Eating too many fats, oils or sweets can be a problem when we eat them instead of foods and nutrients we get in the other food groups.





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How many calories do I need?

Daily calorie needs based on age, gender, and activity level

Age (Years)	Gender	Sedentary (Not Active)	Moderately Active	Active
2-3	Male or female	1,000	1,000	1,000
4-8	Male	1,200 – 1,400	1,400 – 1,600	1,600 – 2,000
	Female	1,200 – 1,400	1,400 – 1,600	1,400 – 1,800
9-13	Male	1,600 – 2,000	1,800 – 2,200	2,000 – 2,600
	Female	1,400 – 1,600	1,600 – 2,000	1,800 – 2,200
14-18	Male	2,000 – 2,400	2,400 – 2,800	2,800 – 3,200
	Female	1,800	2,000	2,400
19-30	Male	2,400 – 2,600	2,600 – 2,800	3,000
	Female	1,800 – 2,000	2,000 – 2,200	2,400
31-50	Male	2,200 – 2,400	2,400 – 2,600	2,800 – 3,000
	Female	1,800	2,000	2,200
51 and older	Male	2,000 – 2,200	2,200 – 2,400	2,400 – 2,800
	Female	1,600	1,800	2,000 – 2,200

Sample Vegetarian One-Day Meal Plan

Meal	Menu
<i>Breakfast</i>	1 Cup Melon Balls (Cantaloupe or Honeydew Melon) 1 Slice Whole Wheat Toast 1/2 T. Peanut Butter 1 Oz. Whole-Grain Ready-to-Eat Cereal 1 Medium Banana 1 Cup 1% Milk
<i>Lunch</i>	Sandwich (2 Oz. Soy-Based Deli Slices) on Whole Wheat Bread with Lettuce and Tomato 1/2 Cup of Baby Carrots 1 Cup 1% Milk 1 Medium Apple
<i>Dinner</i>	Bean Burrito with 1/2 Cup Refried Vegetarian Beans, Lettuce, Tomato, and Salsa on a Whole-Wheat Tortilla 1-1/2 Cups of Rice and Vegetables with Brown Rice, Corn, and Broccoli tossed with 1/2 T. Olive Oil
<i>Snack</i>	1 Cup Calcium and Vitamin D-Fortified Orange Juice 1/2 Oz. Unsalted Almonds 1/2 Cup Dried Apricots 6 Whole-Grain Crackers

Healthy Foods You Should Eat Every Day



BRAIN

salmon, tuna,
sardines, walnut



MUSCLE

bananas, red meat,
fish, eggs



LUNGS

broccoli,
Brussels sprouts,
Chinese cabbage



SKIN

blueberries, salmon,
green tea

green vegetables,
beans, salmon



EYES

corn, eggs, carrot



HEART

tomatoes,
potatoes,
prune juice



BOWELS

prunes, yogurt



BONE

oranges,
celery, milk



What happens if I get ...?

- too many calories...
 - from carbs and fat.
 - Will store as fat (~3500 cal/lb)
 - from proteins.
 - Gout
 - Key long-term problems.
 - Obesity
 - Diabetes
 - Liver failure

What happens if I get ...?

- too few calories.
 - Body takes energy out of storage.
 - Long-term health problems.
 - Heart rhythm abnormalities
 - Depression
 - Anemia
 - Brittle bones
 - Feast-or-famine syndrome.
 - Eating too few calories can actually sabotage weight-loss efforts.
 - Body functions begin to shutdown.

Discussion

- Describe what you've eaten today or yesterday. Does it follow the MyPlate guidelines?
- Is your caloric intake a good fit for your activity level?
- Describe the long-term consequences of your current eating habits.
- Describe a balanced meal plan for a day.
- How can you improve your diet? Do you want to? Why?

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- **Calorie** - is a unit of energy. In nutrition, calories refer to the energy people get from the food and drink they consume, and the energy they use in physical activity. Calories are listed in the nutritional information on all food packaging. Many weight loss programs center around reducing the intake of calories.
- **Fat** - serve both as energy sources for the body, and as stores for energy in excess of what the body needs immediately. Each gram of *fat* when burned or metabolized releases about 9 food calories.
- **Saturated fat** - is a type of dietary fat. It is one of the unhealthy fats. These fats are most often solid at room temperature. Foods like butter, palm and coconut oils, cheese, and red meat have high amounts of saturated fat.
- **Trans fats** – are a form of unsaturated fat. Artificial trans fats (or trans fatty acids) are created in process that adds hydrogen to liquid vegetable oils to make them more solid (margarine and Crisco). Trans fats raise your bad (LDL) cholesterol levels and lower your good (HDL) cholesterol levels. Eating trans fats increases your risk of developing heart disease and stroke. It's also associated with a higher risk of developing type 2 diabetes.

- **Cholesterol** - is a waxy, fat-like substance that's found in all the cells in your body. Your body needs some cholesterol to make hormones, vitamin D, and substances that help you digest foods. Your body makes all the cholesterol it needs. Cholesterol is also found in foods from animal sources, such as egg yolks, meat, and cheese. If you have too much cholesterol in your blood, it can combine with other substances in the blood to form plaque. Plaque sticks to the walls of your arteries. This buildup of plaque is known as atherosclerosis. It can lead to coronary artery disease, where your coronary arteries become narrow or even blocked.
- **Sodium** - is an essential mineral that regulates blood volume, blood pressure, osmotic equilibrium and pH. Too much sodium in the diet can lead to high blood pressure, heart disease, and stroke.

- **Carbohydrates** - are the sugars, starches and fibers found in fruits, grains, vegetables and milk products. They are one of the basic food groups and are important to a healthy diet. Excess carbs can lead to weight gain. Carbs commonly considered bad include pastries, sodas, and highly processed foods. Bad carbs rarely have nutritional value. Good carbs are complex carbs, such as whole grains, fruits, vegetables, beans and legumes. They are processed more slowly and also contain a many of other nutrients.
- **Dietary fiber** - also known as roughage, is the indigestible part of plant foods. Fiber has a host of health benefits, including reducing the risk of heart disease and type 2 diabetes. Fiber is mostly in vegetables, fruits, whole grains, and legumes.
- **Sugar** - is the generic name for sweet-tasting, soluble carbs, many of which are used in food. Table sugar refers to sucrose. Sugar is a source of *carbohydrate* and energy. On its own, sugar has no other nutrients.
- **Proteins** - are essential nutrients for the human body. They are one of the building blocks of body tissue and can also serve as a fuel source. As a fuel, proteins provide as much energy density as carbohydrates:

How to Read a Food Label

1. Serving Information



2. Calories



3. Nutrients



Nutrition Facts	
4 servings per container	
Serving size	1 cup (227g)
Amount per serving	
Calories	280
	% Daily Value*
Total Fat 9g	12%
Saturated Fat 4.5g	23%
<i>Trans</i> Fat 0g	
Cholesterol 35mg	12%
Sodium 850mg	37%
Total Carbohydrate 34g	12%
Dietary Fiber 4g	14%
Total Sugars 6g	
Includes 0g Added Sugars	0%
Protein 15g	
Vitamin D 0mcg	0%
Calcium 320mg	25%
Iron 1.6mg	8%
Potassium 510mg	10%

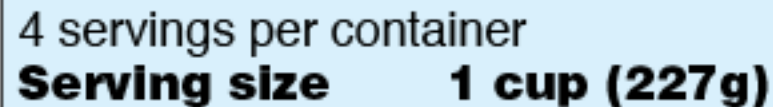
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

4. Quick Guide to percent Daily Value (%DV)

- 5% or less is **low**
- 20% or more is **high**

How to Read a Food Label

1. Serving Information

A simulated food label snippet with a light blue background and a black border. It contains the text: "4 servings per container" in a standard font, followed by "Serving size" in bold, and "1 cup (227g)" in bold. Below the text is a thick black horizontal bar.

4 servings per container
Serving size **1 cup (227g)**

- a. Serving sizes are standardized to make it easier to compare similar foods; they are provided in familiar units, such as cups or pieces, followed by the metric amount, e.g., the number of grams (g). The serving size reflects the amount that people typically eat or drink. **It is not a recommendation of how much you should eat or drink.**

How to Read a Food Label

2. Calories

Amount per serving	
Calories	280

- a. Calories provide a measure of how much energy you get from a serving of this food. To achieve or maintain a healthy body weight, balance the number of calories you eat and drink with the number of calories your body uses. 2,000 calories a day is used as a general guide for nutrition advice. Your calorie needs may be higher or lower and vary depending on your age, sex, height, weight, and physical activity level.

Remember: The number of servings you consume determines the number of calories you actually eat. Eating too many calories per day is linked to overweight and obesity.

How to Read a Food Label

3. Nutrients

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Saturated Fat 4.5g	23%
<i>Trans</i> Fat 0g	
Cholesterol 35mg	12%
Sodium 850mg	37%
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Dietary Fiber 4g	14%
Total Sugars 6g	
Includes 0g Added Sugars	0%
Protein 15g	
Vitamin D 0mcg	0%
Calcium 320mg	25%
Iron 1.6mg	8%
Potassium 510mg	10%

- a. It shows you some key nutrients that impact your health. You can use the label to support your personal dietary needs – look for foods that contain more of the nutrients you want to get more of and less of the nutrients you may want to limit.

How to Read a Food Label

4. The Percent Daily Value (%DV)

	% Daily Value*
Total Fat 9g	12%
Saturated Fat 4.5g	23%
<i>Trans</i> Fat 0g	
Cholesterol 35mg	12%
Sodium 850mg	37%
Total Carbohydrate 34g	12%
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Total Sugars 6g	
Includes 0g Added Sugars	0%
Protein 15g	
Vitamin D 0mcg	0%
Calcium 320mg	25%
Iron 1.6mg	8%
Potassium 510mg	10%

- a. The % Daily Value (%DV) is the percentage of the Daily Value for each nutrient in a serving of the food. The Daily Values are reference amounts (expressed in grams, milligrams, or micrograms) of nutrients to consume or not to exceed each day.

How to Read a Food Label

- It's important to realize that all the nutrient amounts shown on the label, including the number of calories, refer to the size of the serving.
- **Pay attention to the serving size, especially how many servings there are in the food package.**
- In the sample label, one serving equals 1 cup. If you ate two cups, you would be consuming two servings. That is two times the calories and nutrients shown in the sample label, so you would need to double the nutrient and calorie amounts, as well as the %DVs, to see what you are getting in two servings.

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Requirements

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- a. Discuss EACH of the following cooking methods. For each one, describe the equipment needed, how temperature control is maintained, and name at least one food that can be cooked using that method: baking, boiling, broiling, pan frying, simmering, steaming, microwaving, grilling, foil cooking, and use of a Dutch oven.
- b. Discuss the benefits of using a camp stove on an outing vs. a charcoal or wood fire.
- c. Describe with your counselor how to manage your time when preparing a meal so components for each course are ready to serve at the same time.

Baking

- Baking is a method of preparing food that uses dry heat, normally in an oven. The most common baked item is bread but many other types of foods are baked. Heat is gradually transferred "from the surface of cakes, cookies, and breads to their center.



How to Bake

- Select the item you wish to bake and prepare according to directions.
- If the dish you are baking requires the oven to be preheated, turn the oven on at this time and select the proper temperature per your recipe.
- To ensure even baking, unless otherwise specified in your recipe, select the rack in the center of your oven for best results.
- Set a timer for the recipe's recommended time after your dish is placed in the oven.
- Do a visual check on your recipe about three quarters of the way through the cooking process, to make sure it is cooking evenly and not cooking too fast.
- When the timer sounds or when you think your recipe is cooked, gently open the oven door all the way. To prevent burns, use an oven mitt or pot holders to slide out the rack.

Boiling

- In the kitchen, **boiling** is cooking **food** at a relatively high temperature, 212 degrees, in water or some other water-based liquid. It's a vigorous process that works best for sturdier **foods**; anything delicate can get damaged. Eggs, pasta, and potatoes are often boiled.



How to Boil Food

- Requires little more than a heavy-bottomed pot or saucepan to evenly distribute the heat and a stove.
- Boiling is used primarily to cook meats, pasta, and vegetables.
- When **boiling** vegetables or pasta, add the uncooked **food** to water that's fully churning.
- Meat and root vegetables should be *boiled* by placing them in a pot of cold water first, and then slowly bring them to a *boil*.

Simmering

- Simmering is a food preparation technique by which foods are cooked in hot liquids kept just below the boiling point of water (lower than 100 °C or 212 °F)
- To keep a pot simmering, one brings it to a boil and then reduces the heat to a point where the formation of bubbles has almost ceased.



Steaming

- Steaming works by boiling water continuously, causing it to vaporize into steam; the steam then carries heat to the nearby food, thus cooking the food. ... Such cooking is most often done by placing the food into a food steamer.



Pan Frying

- A form of frying characterized by the use of minimal cooking oil; typically using just enough oil to lubricate the pan. Because of the partial coverage, the food must be flipped at least once to cook both sides.
- Use a heavy-bottomed pan for evenly distributed heat with no hot spots. Nonstick skillet allows you to use less oil than traditional pan-fried recipes.
- Start many foods on medium-high heat to initiate browning, then reduce the heat to allow it to finish cooking more slowly.
- Fish fillets, pork chops, hamburgers, chicken, and sturdy vegetables such as potatoes are often pan fried



Microwaving

- Microwaves cause water molecules in food to vibrate, producing heat that cooks the food. Foods high in water content, like fresh vegetables, can be cooked more quickly than other foods.
- Microwave cooking can be more energy efficient because foods cook faster and the energy heats only the food, not the whole oven compartment.
- Foods cooked in a microwave oven may keep more of their vitamins and minerals, because microwave ovens can cook more quickly and without adding water.



Do's and Don'ts of Microwaving

- DO follow the instructions of your microwave.
- Don't use metal bowls or utensils.
- Do use glass, ceramic or microwave safe plastic containers.
- Don't cook all foods for the same time.
- Do stir food occasionally.
- Do heat it until bubbling and/or steaming.
- Don't microwave food uncovered.
- Do clean it often.
- Do check on your food frequently.



Grilling

- Grilling is a form of cooking that involves dry heat applied to the surface of food, commonly from above, below or from the side. Grilling usually involves a significant amount of direct, radiant heat, and tends to be used for cooking meat and vegetables quickly.
- Steak, hamburgers, chicken, and hot dogs are the most popular foods to grill.
- In general all beef products should be cooked over direct heat and with the grill on the high setting.



How to Grill

- Pre-heat your grill before you start cooking.
- After your grill is preheated, use a brass-wire brush to scrape the charred goo and gunk off of the grate.
- Once your grill is clean, oil the grate by grabbing an oiled paper towel with some long tongs, and wiping it over the bars.
 - You'll need to use an oil with a high smoking temperature, like canola oil.
- Now that your grill is hot and the grate is clean, your food won't stick to it as much, and you're likely to get those classic grill lines!
- To avoid losing juices during turning, always flip your meat or vegetables using tongs or a spatula, rather than a fork.
- Limit the flips. Ideally, you should flip each item once during the grilling process.
- Whatever you do, don't press down on burgers or chicken (or anything) with a spatula while they're grilling! This squeezes out the juices and once they're gone ... they're gone!

Dutch Oven Cooking

- A Dutch oven is a thick-walled cooking pot with a tight-fitting lid. Dutch ovens are usually made of seasoned cast iron; however, some Dutch ovens are instead made of cast aluminum.
- A camping Dutch oven usually has three integral legs, a wire bail handle, and a slightly concave, rimmed lid so that coals from the cooking fire can be placed on top as well as below.
- Dutch ovens are well suited for long, slow cooking, such as in making roasts, stews, and casseroles. Almost any recipe that can be cooked in a conventional oven can be cooked in a Dutch oven.



Dutch Oven Cooking

- It is also possible to stack Dutch ovens on top of each other, conserving the heat that would normally rise from the hot coals on the top.
- After use Dutch ovens are typically cleaned like other cast-iron cookware: with boiling water, and a soft brush or sponge, then dried and lightly oiled.



Dutch Oven Cooking Tips

1. Always keep an eye on your ovens.
2. Wait for your fire to have hot coals rather than yellow flames.
3. Season your Dutch oven with oil before cooking to help minimize food sticking.
4. If steam is forcing its way out around the lid, the oven is too hot.
5. Use a pie tin set on 4 pebbles in the Dutch oven for rolls, biscuits, or pies to prevent burning.



Dutch Oven Cooking Tips

6. Always clean and dry your Dutch oven after use. Letting it sit wet or in water or rain will rust it.
7. Make sure you have food or water in your Dutch oven before placing it on coals, unless you are monitoring the heating. An empty oven can burn off the seasoning easily.
8. Use wooden or high-temperature silicone utensils. Plastic spatulas touching the Dutch oven sides can melt, and metal can scratch.
9. A common mistake is to set the lid on the ground. Make sure you have a clean, sturdy place to set the lid.
10. Use a Dutch oven liner to help with clean-up of sugary desserts.



2. Lid Stand



Requirements

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- b. Discuss the benefits of using a camp stove on an outing vs. a charcoal or wood fire.
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Camp Stoves Vs. Campfires

Stoves

➤ Advantages:

- Quick to set up. It's just like cooking on the stove at home. Much better control of heat. Using a portable stove that accommodates large pots or skillets makes sense for larger groups. When cooking for one, a small camp stove is faster and easier than making a campfire. With gusty winds, a stove with a protective shield can keep you on schedule for mealtimes. You can use a stove in areas where campfires are prohibited. Stoves have almost no environmental impact

➤ Disadvantages:

- More equipment is required.



Camp Stoves Vs. Campfires

Campfires

➤ Advantages:

- With a little know-how, you can start a fire nearly anywhere. Less equipment to bring.

➤ Disadvantages:

- Slower to set up. Can darken pots. Harder to control and regulate heat. More prone to burning food/hands. Some locations ban visitors from collecting firewood from the local forest. Conversely, some locations do not allow outside firewood due to pest concerns. Campfires may be banned in areas of forest fire danger. If has been raining, it's going to be difficult to find wood that is dry enough to burn properly. Campfires make "leave-no-trace" camping virtually impossible.



Requirements

3. **Cooking Basics.** Do the following:

- a. Discuss EACH of the following cooking methods. For each one, describe the equipment needed, how temperature control is maintained, and name at least one food that can be cooked using that method: baking, boiling, broiling, pan frying, simmering, steaming, microwaving, grilling, foil cooking, and use of a Dutch oven.
- b. Discuss the benefits of using a camp stove on an outing vs. a charcoal or wood fire.
- c. Describe with your counselor how to manage your time when preparing a meal so components for each course are ready to serve at the same time.

Time Management

- Before you start to cook, go through the recipe's list of ingredients, make sure you have everything you need, and then prepare everything you need.
 - Chop produce, peel garlic, measure out spices and seasonings, etc.
 - Prepare each ingredient and place it in a small prep bowl and set it aside until it's time to add it to the recipe.
- Follow a schedule.
 - Create a timetable, based on how long it takes to prepare each course or recipe.
 - Write down what will take the longest to prepare, then the next, and the next, and so on.
 - Make sure you take into account all the steps needed.



Time Management

EXAMPLE – Pot roast with carrots and onions, green bean casserole, mashed potatoes, rolls, gravy, rice pudding

- 2:00 – Preheat oven.
- 2:00 – Crush four garlic cloves. Remove roast from refrigerator. Trim, wash, and rub both sides with garlic. Place in pan with 1 cup water and quartered onion.
- 2:20 – Cover and put in 350 degree oven. Set timer for 2 hours, 40 minutes.
- 3:30 – Cook 1 cup rice in 2 cups water. When done add sugar, cornstarch, and milk, reduce heat to low. Cook uncovered, until pudding thickens slightly. Remove from heat, pour in serving dishes, and put in fridge.
- 4:15 – Set table. Put out trivets for hot stuff.
- 4:30 – Put out empty serving dishes.
- Etc.
- 5:00 –EAT!

Discussion

- Can you describe each method, the equipment, and a food that can be cooked with that method?
- On a camp outing, what are the pros and cons of using a camp stove vs. a charcoal or wood fire?
- How do the Outdoor Code and No-Trace principles relate to cooking outdoors?

Requirements

- 4. Cooking at Home.** Using the MyPlate food guide or the current USDA nutrition model, plan a menu for three full days of meals (three breakfasts, three lunches, and three dinners) plus one dessert. Your menu should include enough to feed yourself and at least one adult, keeping in mind any special needs (such as food allergies) and how you kept your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.

Then do the following:

- a. Create a shopping list for your meals showing the amount of food needed to prepare and serve each meal, and the cost for each meal.
- b. Share and discuss your meal plan and shopping list with your counselor.

Home Menu Planning Template

Day 1		Menu	Quantity	Calories	Equipment	Utensils
Breakfast	Fruits					
	Vegetables					
	Grain					
	Protein					
	Dairy					

Plan for three breakfasts, three lunches, and three dinners

Home Shopping List Template

	Menu Item	Components to purchase	Quantity	Cost
Breakfast 1				
Breakfast 1 Total Cost				

Plan for three breakfasts, three lunches, and three dinners

Requirements

- 4. Cooking at Home.** Using the MyPlate food guide or the current USDA nutrition model, plan a menu for three full days of meals (three breakfasts, three lunches, and three dinners) plus one dessert. Your menu should include enough to feed yourself and at least one adult, keeping in mind any special needs (such as food allergies) and how you kept your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.

Then do the following:

- d. Using at least five of the 10 cooking methods from requirement 3, prepare and serve yourself and at least one adult (parent, family member, guardian, or other responsible adult) one breakfast, one lunch, one dinner, and one dessert from the meals you planned. *
- e. Time your cooking to have each meal ready to serve at the proper time. Have an adult verify the preparation of the meal to your counselor.
- f. After each meal, ask a person you served to evaluate the meal on presentation and taste, then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how better planning and preparation help ensure a successful meal.

Verification of Methods and Meals

Using at least five of the 10 cooking methods from requirement 3, prepare and serve yourself and at least one adult (parent, family member, guardian, or other responsible adult) one breakfast, one lunch, one dinner, and one dessert from the meals you planned. Cooking methods used:

- | | | | | |
|-----------------------------------|--------------------------------------|-----------------------------------|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> Baking | <input type="checkbox"/> Simmering | <input type="checkbox"/> Boiling | <input type="checkbox"/> Broiling | <input type="checkbox"/> Pan frying |
| <input type="checkbox"/> Steaming | <input type="checkbox"/> Microwaving | <input type="checkbox"/> Grilling | <input type="checkbox"/> Foil Cooking | <input type="checkbox"/> Dutch oven |

Time your cooking to have each meal ready to serve at the proper time. Have an adult verify the preparation of the meal to your counselor.

Breakfast No. _____ Date: _____ Adult's verification: _____

Lunch No. _____ Date: _____ Adult's verification: _____

Dinner No. _____ Date: _____ Adult's verification: _____

Dessert _____ Date: _____ Adult's verification: _____

Home Cooking Evaluation Template

Meal	Evaluation by those served		Self Evaluation	
	Presentation	Taste	Presentation	Taste
Meal 1				

After each meal, have those you served evaluate the meal on presentation and taste, and then evaluate your own meal.

Requirements

5. **Camp Cooking.** Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, plan a menu that includes four meals, one snack, and one dessert for your patrol (or a similar size group of up to eight youth, including you) on a camping trip. These four meals must include two breakfasts, one lunch, and one dinner. Additionally, you must plan one snack and one dessert. Your menus should include enough food for each person, keeping in mind any special needs (such as food allergies) and how you keep your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.
- b. Find or create recipes for the four meals, the snack, and the dessert you have planned. Adjust menu items in the recipes for the number to be served. Create a shopping list and budget to determine the per-person cost.
- c. Share and discuss your meal plan and shopping list with your counselor.

Camp Menu Planning Template

Day 1		Menu	Quantity	Calories	Equipment	Utensils
Breakfast	Fruits					
	Vegetables					
	Grain					
	Protein					
	Dairy					

Plan for three breakfasts, three lunches, and three dinners

Camp Shopping List Template

	Menu Item	Components to purchase	Quantity	Cost
Breakfast 1				
Breakfast 1 Total Cost				

Plan for three breakfasts, three lunches, and three dinners

Requirements

5. **Camp Cooking.** Do the following:

- d. In the outdoors, using your menu plans and recipes for this requirement, cook two of the four meals you planned using either a camp stove OR backpack stove. Use a skillet over campfire coals OR a Dutch oven for the third meal, and cook the fourth meal in a foil pack OR on a skewer. Serve all of these meals to your patrol or a group of youth.**
- e. In the outdoors, using your menu plans and recipes for this requirement, prepare one snack and one dessert. Serve both of these to your patrol or a group of youth.**
- f. After each meal, have those you served evaluate the meal on presentation and taste, and then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how planning and preparation help ensure successful outdoor cooking.

Verification of Methods and Meals

In the outdoors, using your menu plans for this requirement, cook two of the five meals you planned using either a lightweight stove or a low-impact fire. Use a different cooking method from requirement 3 for each meal. You must also cook a third meal using either a Dutch oven OR a foil pack OR kabobs. Serve all of these meals to your patrol or a group of youth.

Meal 1 _____ Heat Source: _____ Method: _____ Date: _____

Meal 2 _____ Heat Source: _____ Method: _____ Date: _____

Meal 3 _____ Heat Source: _____ Method: _____ Date: _____

Dessert or Snack:: _____ Date: _____

Camp Cooking Evaluation Template

Meal	Evaluation by those served		Self Evaluation	
	Presentation	Taste	Presentation	Taste
Meal 1				

After each meal, have those you served evaluate the meal on presentation and taste, and then evaluate your own meal.

Requirements

5. **Camp Cooking.** Do the following:

- g. Explain to your counselor how you cleaned the equipment, utensils, and the cooking site thoroughly after each meal. Explain how you properly disposed of dishwater and of all garbage.
- h. Discuss how you followed the Outdoor Code and no-trace principles when preparing your meals.

Clean-Up

Good dish washing technique will help you stay healthy (especially on extended trips) and minimize impact in the wild.

- **Pre-Rinse** – each individual uses a little bit of drinking water to rinse out their dishes and utensils, drinks that rinse water, and then puts their dishes on the wash pile.
- **Hot Water Wash** (First Dish Pan) using as little soap as possible the dishes are washed. The cleanest dishes go first, the dirtiest dishes go last.
- **Hot Water Rinse** (Second Dish Pan) once all the soapy water has been shaken off the dishes they are rinsed in hot water.
- **Sanitizing Soak** (Third Dish Pan) rinsed dishes go into a sanitizing soak.



Clean-Up

➤ **Disposing of dishwater**

- Strain the dirty water using a kitchen strainer to remove as many food particles as possible and put the food particles in your trash.
- Carry dishwater and rinse water away from your camp and at least 75 steps from any streams, lakes, campsites, or trails.
- Give the water a good fling with a long sweeping throw to spread it over a large area.
- Broadcast the strained dishwater in a sunny area if possible so it will evaporate quickly, causing minimal impact.

Requirements

5. **Camp Cooking.** Do the following:

- g. Explain to your counselor how you cleaned the equipment, utensils, and the cooking site thoroughly after each meal. Explain how you properly disposed of dishwater and of all garbage.
- h. Discuss how you followed the Outdoor Code and no-trace principles when preparing your meals.

Leave No Trace and Outdoor Code

Leave No Trace

- Plan ahead and prepare.
- Travel and camp on durable surfaces.
- Dispose of waste properly.
- Leave what you find.
- Minimize campfire impacts.
- Respect wildlife.
- Be considerate of other visitors.

Outdoor Code

As an American, I will do my best to:

- Be clean in my outdoor manners.
- Be careful with fire.
- Be considerate in the outdoors.
- Be conservation minded.



Requirements

6. Trail and backpacking meals. Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, plan a menu for trail hiking or backpacking that includes one breakfast, one lunch, one dinner, and one snack. These meals must not require refrigeration and are to be consumed by three to five people (including you). Be sure to keep in mind any special needs (such as food allergies) and how you will keep your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.
- b. Create a shopping list for your meals, showing the amount of food needed to prepare and serve each meal, and the cost for each meal.
- c. Share and discuss your meal plan and shopping list with your counselor. Your plan must include how to repackage foods for your hike or backpacking trip to eliminate as much bulk, weight, and garbage as possible.

Backpacking Menu Planning Template

Day 1		Menu	Quantity	Calories	Equipment	Utensils
Breakfast	Fruits					
	Vegetables					
	Grain					
	Protein					
	Dairy					

Plan for three breakfasts, three lunches, and three dinners

Backpacking Shopping List Template

	Menu Item	Components to purchase	Quantity	Cost
Breakfast 1				
Breakfast 1 Total Cost				

Plan for three breakfasts, three lunches, and three dinners

Requirements

6. Trail and backpacking meals. Do the following:

- a. Using the MyPlate food guide or the current USDA nutrition model, plan a menu for trail hiking or backpacking that includes one breakfast, one lunch, one dinner, and one snack. These meals must not require refrigeration and are to be consumed by three to five people (including you). Be sure to keep in mind any special needs (such as food allergies) and how you will keep your foods safe and free from cross-contamination. List the equipment and utensils needed to prepare and serve these meals.
- b. Create a shopping list for your meals, showing the amount of food needed to prepare and serve each meal, and the cost for each meal.
- c. Share and discuss your meal plan and shopping list with your counselor. Your plan must include how to repackage foods for your hike or backpacking trip to eliminate as much bulk, weight, and garbage as possible.

Reducing Bulk, Weight, and Garbage

- When deciding what food to carry, choose those food items that deliver the most calories for the weight or bulk you have to pack.
 - Fatty foods that travel well often have double the calories per ounce of carbohydrates.
- Measure your portions when you pack so that you only bring what you need.
 - Serving size on package label is a good starting point.
- Consider the weight of the container itself (no canned goods or jars).
- Use freeze-dried or dehydrated foods you can mix with water found near your campsites to minimize weight.
- Remove food from its original packaging and carry serving-sized amounts in Ziploc baggies.
 - This cuts down on weight and trash, and the bags can have many other uses during your trip.

Requirements

6. Trail and backpacking meals. Do the following:

- d. While on a trail hike or backpacking trip, prepare and serve two meals and a snack from the menu planned for this requirement. At least one of those meals must be cooked over a fire, or an approved trail stove (with proper supervision).
- e. After each meal, have those you served evaluate the meal on presentation and taste, then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how planning and preparation help ensure successful trail hiking or backpacking meals.
- f. Discuss how you followed the Outdoor Code and no-trace principles during your outing. Explain to your counselor how you cleaned any equipment, utensils, and the cooking site after each meal. Explain how you properly disposed of any dishwater and packed out all garbage.

Camp Cooking Evaluation Template

Meal	Evaluation by those served		Self Evaluation	
Meal 1	Presentation	Taste	Presentation	Taste

After each meal, have those you served evaluate the meal on presentation and taste, and then evaluate your own meal.

Requirements

6. Trail and backpacking meals. Do the following:

- d. While on a trail hike or backpacking trip, prepare and serve two meals and a snack from the menu planned for this requirement. At least one of those meals must be cooked over a fire, or an approved trail stove (with proper supervision).
- e. After each meal, have those you served evaluate the meal on presentation and taste, then evaluate your own meal. Discuss what you learned with your counselor, including any adjustments that could have improved or enhanced your meals. Tell how planning and preparation help ensure successful trail hiking or backpacking meals.
- f. Discuss how you followed the Outdoor Code and no-trace principles during your outing. Explain to your counselor how you cleaned any equipment, utensils, and the cooking site after each meal. Explain how you properly disposed of any dishwater and packed out all garbage.

Clean-Up

- Cooking the right amount of food makes the food disposal and dishwashing process much easier.
- Join the “clean plate club” by leaving as little food as possible on the plate.
- All dishwashing should be done 200 feet away from any water source.
- Use the minimum amount of biodegradable soap that is necessary to clean the dishes.
- Rinse dishes with a small amount of filtered water to remove soap residue.
- After washing, strain your dishwater through a fine mesh strainer (or a bandana) and broadcast the wastewater.
- Pack out the food remnants in your garbage bag.

Requirements

- 7. Food-related careers.** Find out about three career opportunities in cooking. Select one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

Culinary Careers

