

Chapter 21*Working in the Kitchen***Chapter 22***Prepare to Cook***Chapter 23***Cooking Basics***Unit Preview**

This unit is about kitchen safety and cooking basics. In this unit, you will learn about:

- Safe kitchen and food-handling practices.
- Preventing accidents in the kitchen.
- Meal preparation and food shopping.
- Reading and following recipes.
- Choosing the best ingredients.
- A variety of cooking techniques.

Explore the Photo

Cooking can be a fun and delicious experience which allows you to be creative. *What dishes or favorite meals do you know how to cook?*



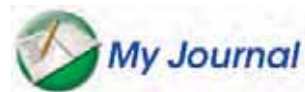
Life Skills Project Preview

A Meal from Your Culture

When you are done studying this unit, you will complete a project in which you will:

- ✓ Prepare a dish that reflects your heritage.
- ✓ Interview a member of your cultural community about the recipe.
- ✓ Share your meal with the class, explaining why it is important to your family or culture.

The prewriting activity below will help you get started.



Prewriting Activity Locate Information

Conduct research to find recipes for meals or foods that reflect your cultural heritage. Choose two or three dishes that you enjoy with your family, or meals that have special memories for you. Add recipes for these dishes to your journal and include answers to these questions:

- Besides being tasty, what makes these meals or foods important to you?
- What makes these meals or foods unique to your family or culture?
- What memories are associated with these meals or foods?

Working in the Kitchen

Section 21.1

Food Safety

■ **Main Idea** Food contamination occurs when food is handled improperly. Learn techniques to keep your kitchen and food clean and safe.

Section 21.2

Kitchen Essentials

■ **Main Idea** Most common kitchen accidents can be prevented. You can help avoid them by practicing safe work habits.





Explore the Photo

There are many things you need to keep in mind in order to stay safe in the kitchen.

What can happen if you do not pay attention to what you are doing while you cook or prepare a meal?

Writing Activity

Write a Personal Narrative

Remember When Choose a vivid memory from your childhood about an event or situation that happened in the kitchen. Narrate the events related to this memory so that your readers will understand why the event was important and memorable.

Writing Tips Follow these steps to write a personal narrative:

1. Use a strong point of view. The reader should be able to imagine what you are describing.
2. Begin with your thesis statement that communicates your memory, the point you want to make, and why the event was so memorable.
3. Tell a story.

Section 21.1 Food Safety

Reading Guide

Before You Read

Use Color As you read this section, try using different colored pens to take notes, using a different color for each different type of information. This is a visual trick that can help you learn new material and study for tests. For example, you could use red for vocabulary words, blue for explanations, and green for examples.

Read to Learn

Key Concepts

- ✓ **Name** two types of bacteria that cause food poisoning.
- ✓ **Explain** how to keep leftovers from spoiling.

Main Idea

Food contamination occurs when food is handled improperly. Learn techniques to keep your kitchen and food clean and safe.

Content Vocabulary

- foodborne illness
- salmonella
- contamination
- perishable
- E. coli


Academic Vocabulary

- minimize
- promptly

Graphic Organizer

As you read, write down three ways to help prevent food contamination. Use a graphic organizer like the one shown to help you organize your information.

Prevent Food Contamination
1.
2.
3.

 **Graphic Organizer** Go to this book's Online Learning Center at glencoe.com to print this graphic organizer.

Academic Standards



English Language Arts

NCTE 5 Use different writing process elements to communicate effectively.



Mathematics

NCTM Measurement Understand measurable attributes of objects and the units, systems, and processes of measurement.



Social Studies

NCSS V G Individuals, Groups, and Institutions Analyze the extent to which groups and institutions meet individual needs and promote the common good in contemporary and historical settings.

NCTE National Council of Teachers of English

NCTM National Council of Teachers of Mathematics

NSES National Science Education Standards

NCSS National Council for the Social Studies

When you get home from school, do you remember to wash your hands before eating? Sometimes you may be in a hurry and grab a snack without thinking about washing your hands. Eating unsafe food can make you very sick. Do you practice food and kitchen safety?

Foodborne Illness

Foodborne illness, also called food poisoning, is an illness caused by unsafe food. Food can become unsafe because of bacteria, parasites, fungi, viruses, or harmful chemicals. The symptoms of foodborne illnesses can sometimes feel like a mild flu. Symptoms such as diarrhea, nausea, stomach pain, headache, muscle pain, and fatigue usually appear within four to forty-eight hours after eating unsafe food. Get rest and drink plenty of fluids. If you have symptoms for more than one or two days, call a doctor. The safe handling of food and utensils can prevent most foodborne illnesses.



Identify What are the symptoms of foodborne illnesses?

Keep Food Safe

Contamination, occurs when food becomes infected with harmful bacteria. If you follow some simple procedures when you handle and prepare food, you can **minimize**, or decrease, the risk of food contamination. In mild cases, people who eat contaminated food may experience headaches, stomach cramps, and fever. In more severe cases, however, medical attention may be necessary.

A few types of bacteria cause most food poisoning. **E. coli** is the most deadly form of food poisoning. E. coli bacteria are found in contaminated water, raw or rare ground beef, and unpasteurized milk. For this reason, you should only eat hamburgers that have been fully cooked. Another common type of food poisoning is caused by salmonella bacteria. **Salmonella** (*sal-mə-'ne-lə*) bacteria are often found in raw or undercooked foods, such as meat, eggs, fish, and poultry. Salmonella grow quickly at room temperature and can be spread by hands and cooking utensils. Thoroughly cook all meat, poultry, fish, and eggs. Wash your hands, knife, and cutting board with soap and hot water whenever you cut raw meat, fish, or poultry.

You should always clean up the kitchen as you cook. Wipe up spills immediately and clean off the countertops. As you finish using pots, pans, and cooking utensils, wash them in hot, soapy water. By keeping the kitchen clean, it will be a more healthful and pleasant place to work.



As You Read

Connect Think about the foods and beverages in your refrigerator. Is there anything that should be thrown out?

Vocabulary

You can find definitions in the glossary at the back of this book.



Stay Alert

Snooze or Lose

If you are too tired, you will not be able to concentrate well in class. Not getting enough can lead for poor school performance. Balance your time in order to get enough sleep.





Defrosting

After you defrost food, it is important to use it right away. Waiting until later to cook food allows harmful bacteria to grow.

- Defrost food in the refrigerator.
- Do not let it sit out overnight.

Handling Food

Another way to reduce the risk of food poisoning is to handle perishable foods carefully. Foods that are **perishable** are likely to spoil quickly. Perishable foods include meat, poultry, fish, eggs, fresh fruits and vegetables, leftovers, and dairy products. Hot foods such as hamburgers should be kept hot, and cold foods such as yogurt should be kept cold until they are eaten. Keep hot foods at 140°F (60°C) or above, and cold foods at 40°F (4°C) or below. Otherwise bacteria might grow.

Foods that have been cooked should not stand at room temperature for more than two hours. For a packed lunch or picnic, use cold packs and a cooler to keep the cold foods cold.

Storing Leftovers

To keep leftovers from spoiling, refrigerate or freeze them **promptly**, or immediately after the meal. Put leftovers in a tightly covered shallow container, and store them in the refrigerator.

Many leftovers can also be frozen for use at a later date. When freezing leftovers, pack them in an airtight container, and label them with the name of the food and the date. Freezing food keeps bacteria from growing until the food is thawed. Most foods can be stored in the freezer for several months.

Freezer Storage

You can keep packaged frozen foods, meat, poultry, fish, bread, and home-prepared mixed dishes fresh and appealing by properly freezing them. Some foods do not freeze well, such as cooked egg whites, lettuce, and foods with mayonnaise or salad dressing.

Here are some storage guidelines:

- Store frozen foods in their original packages.
- Wrap foods properly so they do not spoil or get freezer burn. Freezer burn is harmless, but it causes unappealing, dried-up white areas on food. To prevent freezer burn, keep foods airtight in freezer paper, heavy-duty foil, freezer-quality plastic bags, or plastic freezer containers.
- Label frozen foods with the name, date frozen, and serving amount.



Thaw a Turkey

The safest way to thaw a frozen turkey is in the refrigerator. Allow 24 hours of thawing time for every 5 pounds (2 kg) of turkey. On what day do you need to start defrosting a 20-pound (9 kg) turkey for Thanksgiving, which falls on a Thursday?

Math Concept **Selecting Units of**

Measure Converting measurements into more manageable equivalents makes problem solving easier. For example, 24 hours = 1 day.

Starting Hint First, determine the number of days needed to defrost the turkey. Then, count backward from Thursday. Remember: the turkey will need to be cooked starting Thanksgiving morning!



For more math help, go to the Math Appendix located at the back of this book.

NCTM Measurement Understand measurable attributes of objects and the units, systems, and processes of measurement.

Prevent Food Contamination

To avoid getting sick from the foods you eat, you need to follow some basic guidelines for handling food. These guidelines will help you care for your health and the health of others.



Keep Your Kitchen and Utensils Clean Keep hands, counters, and utensils clean. If you spill something on the floor, wipe it up immediately with a paper towel, cloth, or mop. Wash cutting boards, utensils, and hands after handling raw meat, poultry, or seafood. Use separate towels for drying hands and drying dishes.

Prepare Food Properly When you are ill, it is best not to prepare food for others. Thaw frozen foods in the refrigerator or microwave oven. Keep raw meat, poultry, and seafood separate from other foods. Wash raw foods thoroughly. Keep your hair out of the food.


Serve and Store Food Safely Keep hot foods hot and cold foods cold. Serve cold and cooked food immediately. Refrigerate leftovers immediately. Use a separate spoon for tasting food. After you have used it for tasting, wash the spoon.

Food Safety and Shopping When shopping for food, put raw meat, poultry, and fish in plastic bags so they will not drip on other food. Check package labels for “use by” dates and directions for storage and cooking. Choose chilled, high-quality fresh produce. Refrigerated foods should feel cold and frozen foods should be solid. Avoid discolored or mushy frozen packages. Ice crystals signal thawed, refrozen food. Shop for refrigerated, frozen, and deli foods last. They will have less time to warm up. Avoid food packages with holes, tears, or broken safety seals. Pick canned goods without dents, bulges, rust, or leaks. Bulging cans signal that a food has been contaminated with dangerous organisms. Take groceries home right away. If getting groceries home takes more than 30 minutes, bring an insulated cooler for perishable foods.

COMMUNITY CONNECTIONS

Food Drive Many people donate canned goods, dry goods, and other nonperishable food items during holiday seasons. However, families are in need all year long. Consider asking your teacher if your class can start a food drive for a local pantry or shelter.



 **Store Leftovers** Put away leftovers without delay. *Why is it important to store leftovers properly?*

Refrigerator Storage

A refrigerator keeps perishable foods fresh for one day to several weeks. Even properly stored foods will not keep forever. Keep your refrigerator as cold as possible without freezing foods. Safe temperatures range from 32°F to 40°F (0°C to 4°C). Inside shelves and drawers stay colder than door shelves. Refrigerator storage guidelines include:

- Use foil, plastic wrap, zippered plastic bags, or airtight containers to cover and protect food.
- Put meat, poultry, fish, milk, and eggs on inside shelves. Use door shelves for most condiments, such as ketchup, mustard, and relish.
- Place raw meat, poultry, and fish on a plate or in a plastic bag, on the bottom shelf so they do not drip onto other foods.
- Leave space for cold air to circulate around food.
- Wipe spills immediately. Sanitize drawers. Throw away spoiled foods.

Character Counts

Confrontation

Jaden likes to cook for family and friends, but when her friend Sawyer comes for dinner, he finds that he is afraid to eat Jaden's cooking because of her practices in the kitchen. He sees that she does not wash her hands between handling meat and vegetables, and the counters are never wiped off.

You Make the Call

What should Sawyer do about eating dinner with Jaden? Write a paragraph explaining what course of action Sawyer should choose and why.

Dry Storage

Keep nonperishable foods in a cabinet or pantry. This includes grains such as rice, cereal, flour, and crackers. Oils, dry herbs, and unopened cans and jars can also be stored safely in a cabinet or pantry. Dry storage areas should be clean, dry, dark, and cool (below 85°F or 29°C). Tips for dry storage include:

- Do not store foods above the refrigerator or stove, or near a furnace outlet.
- Do not keep food under a sink. Openings around pipes cannot be sealed. Pests and moisture from pipes can spoil food.
- Do not store cleaning products or trash near food. Cleaners, detergents, and other household chemicals can contaminate food.
- Read the labels on food packaging. Some foods need refrigeration after being opened.



Stay Alert

Snack Attack Hunger dulls the brain. If you are thinking about food, you will not be able to pay attention as well in class. One way to avoid hunger is to be sure to eat a healthful breakfast every morning.



Section 21.1 After You Read

Review What You Have Learned

1. **Identify** places where *E. coli* bacteria can develop.
2. **Describe** freezer burn and how to prevent it.

Practice Academic Skills

English Language Arts


3. Write a step-by-step kitchen safety guide for someone who is just starting out in the kitchen. Provide guidelines for keeping the kitchen and food safe. Be sure to include what tools or supplies they will need.

NCTE 5 Use different writing process elements to communicate effectively.

Social Studies

4. Research food safety regulations for restaurants in your community. What are the guidelines for clean kitchens and cooking? How often are restaurants checked for following guidelines? How do the guidelines contribute to public safety? Write a short overview of what you discover.

NCSSV G Analyze the extent to which groups and institutions meet individual needs and promote the common good in contemporary and historical settings.

 **Check Your Answers** Check your answers at this book's Online Learning Center at glencoe.com.

Reading Guide

Before You Read

Take Guilt-Free Days of Rest The brain has a hard time absorbing new data when it is stressed. Your reading skills will be much more effective if you are relaxed and ready to learn.

Read to Learn

Key Concepts

- ✓ **Identify** the five most common kitchen accidents.
- ✓ **Describe** the benefit of having basic tools and cookware.
- ✓ **List** five examples of large kitchen appliances.

Main Idea

Most common kitchen accidents can be prevented. You can help avoid them by practicing safe work habits.

Content Vocabulary

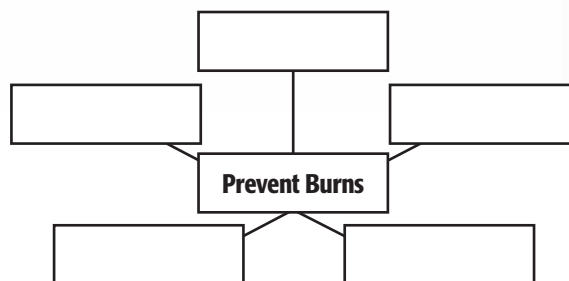
- flammable
- convection oven
- utensil

Academic Vocabulary

- hazard
- conduct

Graphic Organizer

As you read, write down five things you can do to help prevent burns in the kitchen. Use a graphic organizer like the one shown to help you organize your information.



- 🔗 **Graphic Organizer** Go to this book's Online Learning Center at glencoe.com to print this graphic organizer.

Academic Standards



English Language Arts

NCTE 8 Use information resources to gather information and create and communicate knowledge.



Science

NSES B Develop an understanding of the structure and properties of matter.



Social Studies

NCSS VIII A Science, Technology, and Society

Identify and describe both current and historical examples of the interaction and interdependence of science, technology, and society in a variety of cultural settings.

NCTE National Council of Teachers of English

NCTM National Council of Teachers of Mathematics

NSES National Science Education Standards

NCSS National Council for the Social Studies

Your home may seem like a safe place to be. However, if you do not take precautions to avoid accidents, your home can become very dangerous. The kitchen is a common place for accidents. How do you keep yourself safe when you cook or help others in the kitchen?

Kitchen Safety


The most common kitchen accidents include falls, burns, fires, cuts, and electric shocks. These types of accidents are usually preventable if you develop good, safe work habits. In general, keep hair, loose clothing, jewelry, and apron strings out of the way. They could catch fire or become tangled in appliances. Always pay attention to your tasks, and use the right tools for each job.

Falls

To prevent falls, follow these guidelines:

- Stand on a short stepladder or a sturdy step stool with a waist-high hand bar to get at high or hard-to-reach items. Do not use chairs because they tip over too easily.
- Turn pot and pan handles toward the center of the stove or counter so that the pots or pans will not get knocked over.
- Clean up spilled foods or liquids immediately.
- Keep cupboard doors and drawers closed when not in use.
- Choose kitchen rugs with a nonskid backing.
- Never walk on a wet floor. Clear away floor clutter.
- Store heavy items within easy reach.



 **Avoid Kitchen Falls** Clean up spilled food and liquids right away to avoid slips and falls. *What else can you do to avoid falls in the kitchen?*



As You Read

Connect Being in the kitchen can be dangerous. What are the potential dangers in your family's kitchen?



Stay Alert

Talk It Through

Being stressed can be a distraction. If you are worried about something, you might have trouble focusing on your schoolwork. If something is really bothering you, find someone to talk to about it, like a friend, parent, teacher, or counselor.



SCIENCE YOU CAN USE



Kitchen Fires

Fire requires three ingredients. It needs heat, fuel, and oxygen. When you add an ignition source, you have a fire! The ignition is the mechanism that ignites the fuel. To ignite means to cause to start burning.

Procedure Choose one type of kitchen fire to analyze. Conduct research to identify what might cause this type of fire. Also, find out about safe ways to put out this type of fire.

Analysis Write a report on your findings. In your report, describe the type of fire, typical causes, and safe ways to put out that type of fire.

NSES B Develop an understanding of the structure and properties of matter.

Burns

Several kitchen **hazards**, or dangers, can burn you. You can prevent most burns in the kitchen by following these safety precautions:

- Use dry potholders when cooking hot foods and liquids or removing them from the stove, oven, or microwave.
- Turn pot and pan handles toward the center of the range. This helps keep someone from bumping a hot pan off the range.
- When cooking, remove pan lids by tilting them away from you. This allows steam to escape safely at the back of the pot, away from your hands and face.
- Use medium or low temperatures to cook greasy foods, such as French fries or fried chicken, to avoid splattering hot oil.
- Wait until appliances cool down before cleaning them.

Fires

Fires can happen easily in the kitchen. Follow these safety precautions, or actions taken in advance:

- Keep a fire extinguisher in the kitchen where you can reach it quickly and safely. Be sure that you know how to use it properly.
- Do not wear clothing with long, loose-fitting sleeves when cooking. The sleeves can easily catch fire.
- If your hair is long, tie it back.
- Keep all flammable objects, such as paper bags, potholders, kitchen towels, curtains, and plastic containers, away from the stove. **Flammable** means capable of burning easily.
- Do not leave the kitchen while food is cooking. Fire can spread in seconds.
- If a grease fire starts, turn off the heat and smother the fire with a tight-fitting lid. Never use water. Water causes a grease fire to spread.
- Keep aerosol cans away from heat. They can explode if heated. Also, the spray from aerosol cans may be flammable.

Vocabulary

You can find definitions in the glossary at the back of this book.

Cuts

Kitchen knives have specific purposes, from trimming and peeling fruits and vegetables to slicing meat.

To prevent cuts from knives and other hazards, observe the following safety rules:

- Keep knives sharp. Sharp knives are often safer than dull ones, since a dull knife will force you to use more force, which can lead to the knife slipping and cutting you.
- Cut food away from your body. Use a cutting board for all cutting jobs, even if it is only a single apple. Do not hold food in your hand to cut.
- Wash knives and sharp objects separately from other utensils.
- Store knives in a special compartment in the drawer or in a knife holder. Put them away immediately after cleaning them.
- If you drop a knife, let it fall. Do not try to catch it.
- Never pick up broken glass with bare hands. Sweep it into a dustpan immediately. Then wipe the floor with several thicknesses of damp paper towels, put the broken pieces into a paper bag, and place the bag in a trash can.
- Throw away chipped or cracked plates and glasses.




Fire Extinguishers

Every kitchen should be equipped with a fire extinguisher. To use one, follow these steps:

- Pull the ring and stand back several feet from the fire. Aim the nozzle at the base of the flames.
- Squeeze the handle.
- Spray back and forth across the base of the fire.



 **Knife Safety** To cut safely, use the right knife for the job. Hold your hand so your fingertips are under your knuckles, and be careful of the thumb holding the food. *What else can you do to avoid accidental cuts?*



Stay Alert

Get Moving We all know that getting enough exercise is good for the body, but did you know it is good for your mind, too? Physical activity relieves stress, relaxes you, and improves concentration. Being physically active can also help you be mentally active.

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Electric Shocks

Electrical appliances make kitchen tasks easier, but they can also cause electric shocks. To prevent shocks, take the following precautions:

- Avoid using any appliance with a frayed, or worn, cord.
- Dry your hands before using electrical equipment.
- Disconnect appliances by pulling out the plug directly, not by tugging on the cord.
- Keep portable appliances unplugged when not in use.
- Always unplug a toaster before trying to pry food from it. Forks, knives, or other metal utensils can **conduct**, or carry, electricity and cause an electrical shock.



List What are some flammable kitchen items?

Small Equipment

Not all kitchen tools and cookware are essential. For example, you do not have to have a vegetable peeler to peel a carrot. You can also do the job with a paring knife. However, a kitchen equipped with basic tools and cookware makes food preparation much easier.

Kitchen Equipment

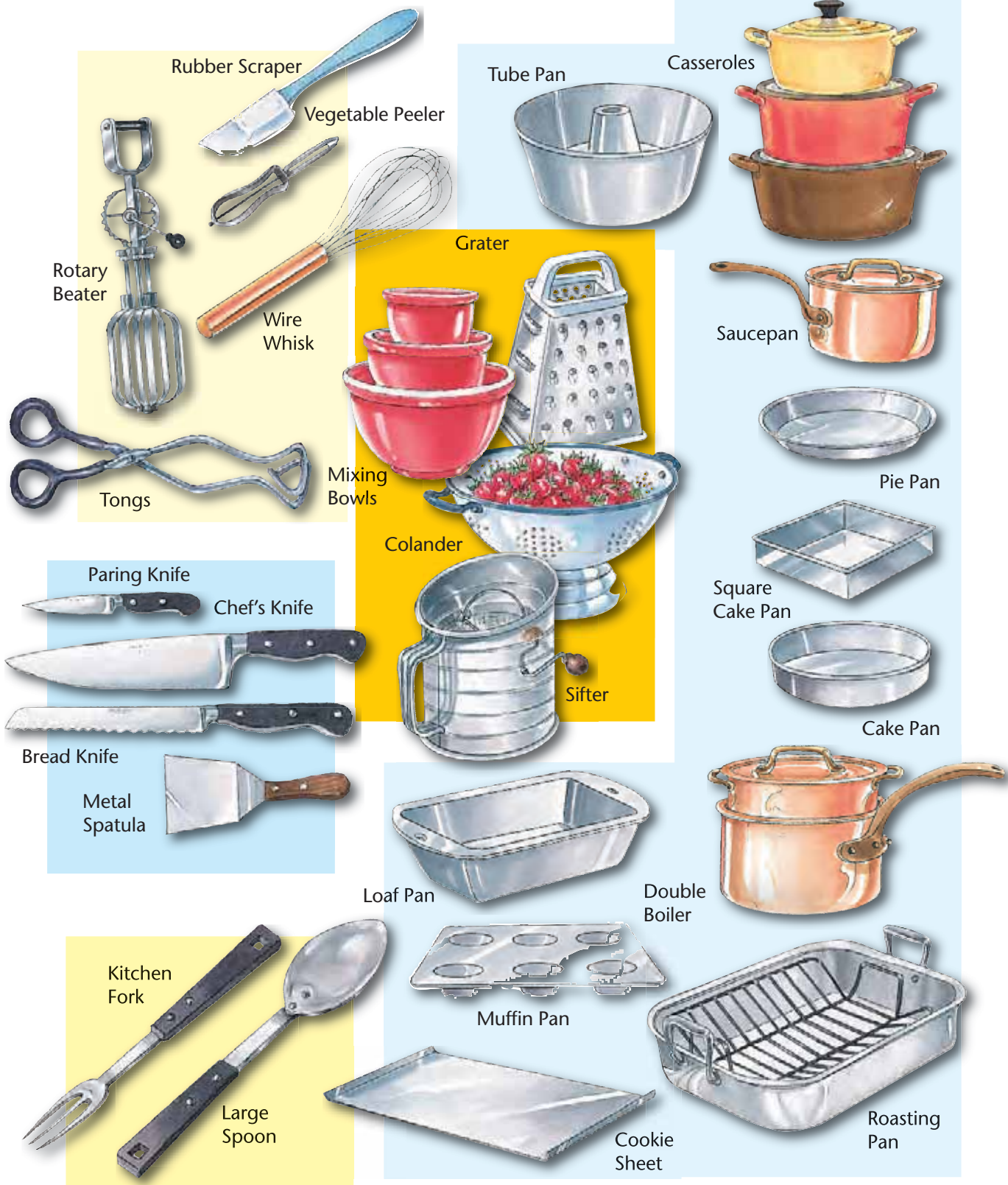
Tools and small equipment for the kitchen are designed for specific purposes.

Why is it important to have basic tools and cookware in the kitchen?



Figure 21.1 Kitchen Tools and Cookware

The Right Tool for the Right Job Having the right tools is an important part of being a successful cook. *Which of these tools would you use to turn chicken on a grill?*





 **Microwave Oven** Convenience and speed are the advantages of microwave cooking. *What kinds of foods would not cook well in a microwave?*

Many types of utensils and cookware are available. A **utensil** is a tool or container used in the kitchen. **Figure 21.1** illustrates many common kitchen items. You can cook just about anything if you have basic kitchen utensils, cookware, and appliances and know how to use them. Preparing food will be easier, more enjoyable, and safer when you select the right tools for the job. The most commonly used utensils include those for cooking, mixing, and slicing or cutting. Commonly used small appliances include toasters, hand mixers, food processors, and blenders. The best cookware to use depends on the type of food you are cooking and where you are cooking it. For instance, you could use a metal cake pan to bake cookies in a conventional oven, but not in a microwave oven. You should never put metal in a microwave oven. Metal in a microwave creates sparks which could result in a fire.



Recall Can you use a metal cake pan to bake cookies in a microwave oven? Why or why not?

Large Equipment

Large kitchen appliances, such as stoves, refrigerators, convection ovens, microwave ovens, and dishwashers, add convenience, speed, and ease to the kitchen. Compare appliances before you buy them. Check the prices, features, and energy efficiency of different models so you can get the best value for your money. Read the owner's manual to learn how to safely use and care for appliances. You can also learn about how each feature works, and what to do if the appliance stops working. Keep the owner's manuals for reference.

The cost of large kitchen equipment varies, depending on extra features they may include. For example:

- **Refrigerators** may have the freezer on the side, on the top, or on the bottom. Some are self-defrosting and have extra features, such as additional freezer space, ice makers, or ice cube and water dispensers.
- **Dishwashers** vary in the number and depth of racks they contain. Quiet-running and energy-efficient models tend to be more expensive.
- **Stoves or ranges** usually come with conventional ovens. Some stoves also include microwave ovens, while others include convection ovens.
- **Convection ovens** use a high-speed fan to circulate hot air throughout the oven, evenly and continuously, which speeds up the cooking. Conventional ovens may be self-cleaning or continuous cleaning. An automatic timer that can turn the oven on or off is another possible feature.
- **Microwave ovens** are fast, convenient, and easy to use. They come in a variety of sizes and have a range of power settings.

Section 21.2 After You Read

Review What You Have Learned

1. **Describe** ways to avoid falls in the kitchen.
2. **Name** some commonly used small appliances.
3. **Explain** why you should keep the owner's manuals that come with appliances.

Practice Academic Skills

English Language Arts


4. Choose one of the most common kitchen accidents, and create a poster that communicates how to avoid that type of accident. Use photos, clip art, graphics, and attention-grabbing text to show how to avoid this type of accident in the kitchen.

NCTE 8 Use information resources to gather information and create and communicate knowledge.

Social Studies

5. Choose a small appliance that is used in the kitchen. Research the history of the appliance, including who created it and how it has changed and developed over the years. Be prepared to give a short presentation to your classmates.

NCSS VIII A Identify and describe both current and historical examples of the interaction and interdependence of science, technology, and society in a variety of cultural settings.

 **Check Your Answers** Check your answers at this book's Online Learning Center at glencoe.com.

Discovering Careers

Focus on Careers in Food Service ▼



Do you have a keen sense for the taste of food? Do you like to cook or bake for the enjoyment of others? If you answered yes to either of those questions, you might want to consider a future career in food inspection or serving. The following chart explores several careers in food service.

Career Activities ▼

At School

1 Select two of the careers listed. Research the education, training, and work experience required for each career. Write a summary of your results.

At Home

2 With a parent, write out the procedures that you and your family follow when cooking. How safe is your home kitchen?

At Work

3 Can you think of all the different types of jobs there are, working in a restaurant? Do some research if necessary.

In the Community

4 Contact and interview someone in your community who works in food service. Ask this person to describe what his or her typical work day is like. Share what you learned with your class.

Job Title	Job Description
Flavorist	Identifies the chemical compounds in food flavors. Conducts experiments to test different flavors. Blends and creates flavors.
Head Server	Supervises and trains wait staff to take guests' orders, clear tables, and present checks. Suggests menu items and answers questions regarding foods.
Caterer	Provides food for parties, special dinners, and receptions. Meets with clients to discuss menus. Delivers and serves food.
Cake Decorator	Designs cakes and pastries for sale. Creates decorations on specialty cakes, birthday cakes, and wedding cakes.
Restaurant Kitchen Manager	Organizes procedures for cooking and cleaning. Schedules employees for work. Makes sure policies regarding safe cooking are followed.

Learn More Online  glencoe.com

Career Investigations Go to this book's Online Learning Center for activities and worksheets to help you explore careers.



Chapter Summary

Section 21.1 Food Safety

Foodborne illness, also called food poisoning, is an illness caused by unsafe food. Food can become unsafe because of bacteria, parasites, fungi, viruses, and harmful chemicals. Keeping food safe can prevent food becoming infected with harmful bacteria. By following some simple procedures when handling and preparing food, you can reduce the risk of food contamination. Store food properly and quickly after you are finished eating, and cook meat fully before serving.

Section 21.2 Kitchen Essentials

The most common kitchen accidents include falls, burns, fires, cuts, and electric shocks. These types of accidents are usually preventable if you develop good, safe work habits. For your kitchen, many types of utensils and cookware are available. The best cookware to use depends on the type of food you are cooking and where you are cooking it. Large kitchen equipment such as stoves, convection ovens, microwave ovens, refrigerators, and dishwashers, can also make food preparation easier.

Words You Learned

1. Use at least six of these content and academic vocabulary words in a short essay about food and kitchen safety.

Content Vocabulary

- foodborne illness (p. 469)
- contamination (p. 469)
- E. coli (p. 469)
- salmonella (p. 469)
- perishable (p. 470)
- flammable (p. 476)
- utensil (p. 480)
- convection oven (p. 481)

Academic Vocabulary

- minimize (p. 469)
- promptly (p. 470)
- hazard (p. 476)
- conduct (p. 478)

Review Key Concepts

2. **Name** two types of bacteria that cause food poisoning.
3. **Explain** how to keep leftovers from spoiling.
4. **Identify** the five most common kitchen accidents.
5. **Describe** the benefit of having basic tools and cookware.
6. **List** five examples of large kitchen appliances.

Critical Thinking

7. **Formulate** a plan for keeping food safe in your home.
8. **Evaluate** the safety of your kitchen at home. If there are safety issues, suggest how these can be fixed.
9. **Compare and contrast** conventional ovens with convection ovens.

Real-World Skills and Applications

Problem-Solving

10. **First Aid in the Kitchen** You and your older sister prepared a meal for your parents' 15th wedding anniversary. Everything was going well until your sister accidentally knocked over a pan on the stove. The liquid in the pan caused a minor burn on the top of her foot. Write a paragraph to explain the proper first-aid procedure, and include the list of supplies you would need.

Interpersonal and Collaborative

11. **Kitchen Safety Guidelines** Follow your teacher's directions to form groups. Design a brochure about kitchen safety. The brochure should include illustrations and written safety guidelines. Post your team's brochure in the classroom. Remember to share them with family members at home.

Financial Literacy

12. **Appliances and Energy Use** When comparing costs for large kitchen and household appliances, you should consider both the purchase price and the ongoing electricity costs of operating the appliance. The government requires most major new appliances to have a yellow EnergyGuide sticker that shows typical energy usage and costs for that model, and how it compares to other models. Imagine that you are comparing two similar refrigerators. Model A costs \$595, and uses \$58 worth of electricity a year. Model B costs \$715, but uses \$35 in electricity a year. If a refrigerator lasts 15 years, which model will end up being the least expensive?



13. **Design a Kitchen** With all the options these days for a kitchen, you can have any type of kitchen you want. Design a kitchen that is safe, convenient, and well-equipped. Begin with a list of what you would want in your kitchen. Then design your kitchen for the most efficient use. Create a diagram of your kitchen that shows where appliances will be placed and where utensils will be found for your perfect kitchen. Include where the cupboards, counters, sink, dishwasher and refrigerator will be. Share your diagram with the class.

14. **Research Disease** Choose either E.coli or salmonella, and research to find additional, in-depth information on one of these illnesses. Find out how it is caused, the symptoms, and ways to prevent it. Prepare a brief presentation on what you find to the class.



15. **Set the Table** With permission from your teacher or a parent, go online to search for information on proper table settings. On plain paper, illustrate different ideas and save them for reference. Label according to the appropriate kind of function, for example, picnic, holiday, or family meal. Compile the different table settings to include in your Life Skills Binder.

Academic Skills



English Language Arts

16. **Establish Safety Procedures** Imagine that your class is having a dinner party for the parents. Your job is to make sure that the food served is safe to eat. Write down all the procedures you would follow to make the food safe. Present the procedures in an easy-to-follow list of steps.

NCTE 5 Use different writing process elements to communicate effectively.



Social Studies

17. **Research Food Safety** Food safety has changed and developed throughout history. Choose a historical period and find examples of how safety was addressed in the kitchen. Did different social groups follow different procedures for food safety? Were men and women involved in food preparation? What were the biggest risks that people of this period had to address? Present your findings to the class.

NCSS IV B Individual Development and Identity Identify, describe, and express appreciation for the influence of various historical and contemporary cultures on an individual's daily life.



Mathematics

18. **Storing Food** Marco has just finished cooking 2 quarts (115.5 cubic inches) of vegetable soup that he would like to store in the freezer for later use. He is trying to decide if all of that soup will fit inside one resealable container. The container he would like to use is cylindrical, and measures 8 inches wide and 4 inches tall. Can Marco fit 2 quarts of soup in the container?

Math Concept Volume of a Cylinder

A cylinder is a solid with a circular base and top. Calculate the volume (V) of a cylinder as $V = \pi r^2 h$, where r is the radius of the circular base, and h is the cylinder's height. Use 3.14 for π .

Starting Hint The height (h) of the container is 8 inches. Since a circle's radius equals $\frac{1}{2}$ of its diameter, the radius (r) of the top and bottom of the container is $\frac{1}{2} \times 4$ inches = 2 inches. Plug these numbers into the volume formula to find the volume in cubic inches.

NCTM Geometry Use visualization, spatial reasoning, and geometric modeling to solve problems.



Standardized Test Practice

Mathematics

Choose the letter of the best answer. Write the letter for the answer on a separate sheet of paper.

Test-Taking Tip Study for tests over a few days or weeks, and continually review class material. Do not wait until the night before to try and learn everything.

19. If the formula for converting from Celsius to Fahrenheit is $F = 9/5C + 32$, what is the formula for converting from Fahrenheit to Celsius?
- $C = 5/9(F - 32)$
 - $C = 5/9(F + 32)$
 - $C = 32 - 9/5F$
 - $C = 9/5(F - 32)$