

Unit 4: Are You Safe?

Lessons 1 & 2: Reading

READ

Read the article. As you read, summarize parts of the text. Write the important ideas in your notebook.

Reading Skill: Summarizing

As you read, stop to summarize parts of a text so that you will remember and understand what you read. Write a few sentences about the main ideas. Leave out unimportant events, ideas, and details. When you finish reading, summarize the entire text.

Thunder and Lightning

Thunderstorms occur all over the world. Thunder and lightning usually accompany thunderstorms. Lightning is an electrical discharge that can travel 60,000 miles per second and can be five times hotter than the surface of the sun. Thunder is the sound made by lightning. Thunderstorms can be severe and cause damage. Take these steps to be safe.

If a thunderstorm is predicted for your area, first bring inside objects that could blow away in strong winds. For example, bring in trash or recycling bins. Next, make sure items in your home are safe. Unplug

electrical items such as appliances and computers. Power surges from lightning can damage these items. Once a thunderstorm starts, follow the 30/30 rule. When you first see lightning, count to 30. If you hear thunder before you reach 30, go indoors. Stay in the basement or in the room with the fewest windows. Stay inside 30 minutes after you hear the last thunderclap. If you are in a vehicle, try to get inside the nearest building. If you are not able to do this, stay in your vehicle.

Fact or Fiction?

- Lightning never strikes twice in the same place.

FICTION. *Lightning often strikes the same place more than once.*

- Taking a shower or bath during a thunderstorm is dangerous.

FACT. *Pipes can conduct electricity if lightning hits your home.*

- Talking on the phone during a thunderstorm can be dangerous.

FACT AND FICTION. *This is only true for phones that have a cord. It's safe to use cordless phones and cell phones.*

- Shoes with rubber soles and rubber tires protect you from lightning.

FICTION. *A small amount of rubber does not protect you when lightning strikes.*

- Never touch someone who has been hit by lightning.

FICTION. *It's safe to touch people hit by lightning and important to do so if they need first aid. 90 percent of people hit by lightning survive.*

CHECK YOUR UNDERSTANDING

A Read the article again. Match each summary with the correct paragraph of the article. Write (paragraph) 1 or 2.

___ There are many things you can do to stay safe when there is a thunderstorm. You should secure items in your home and outside. Stay inside or in your vehicle until the thunderstorm is over.

___ Thunderstorms involve thunder and lightning and can cause damage. Lightning is an electrical discharge, and thunder is a sound made by lightning.

B Read the statements. Write *T* (true) or *F* (false).

 F 1. Thunder is an electrical discharge.

___ 2. Lightning can travel 100,000 miles an hour.

___ 3. You should bring items inside that could blow away in a thunderstorm.

___ 4. Power surges can damage computers.

___ 5. You should stay indoors one hour after you hear the last thunderclap in a storm.

___ 6. You should never stay in your vehicle during a thunderstorm.

___ 7. Lightning can strike in the same place more than once.

___ 8. It's safe to use a cell phone during a thunderstorm.

___ 9. Shoes with rubber soles protect you from lightning.

___ 10. Most people die after lightning hits them.

C Answer the questions.

1. What is the 30/30 rule?

2. Why is it dangerous to take a shower or bath during a thunderstorm?

A Change the passive sentences to active sentences.

1. The workers might have been hurt by the accident.

The accident might have hurt the workers.

2. Many houses could have been destroyed by the hurricane.

3. The building should have been evacuated by the fire chief.

4. The town should have been warned by the police.

5. The trash cans should have been collected by the building manager.

B Complete the sentences.

1. Tanya didn't evacuate her home during the flood. She had to wait for help. She should

_____ have evacuated _____. She shouldn't _____ have stayed home _____.

2. Ernesto didn't watch the news on Friday. He didn't know there was going to be an

earthquake. He went to work. He should _____.

He shouldn't _____.

3. The police warned Ai-Lun to lock her doors at night, but she didn't listen. She didn't lock

them. She was lucky. She wasn't robbed. She should _____.

She might _____.

4. Jordan and Solomon didn't prepare an emergency kit for their home. The lights went out, and they didn't have a flashlight or candle. They had to sit in the dark for five hours. They

should _____.

They might not _____.

C Complete the conversation. Circle the correct words.

Linh: Hi, Jesse. Did you hear about the hurricane in Florida?

Jesse: Yes, I did. My aunt and uncle live in Miami.

Linh: Wow! Are they OK?

Jesse: Yes, they are. But it was a bad situation because they stayed for a while. They didn't realize that the hurricane would be so dangerous. If they had known that, they **might not have been** / **might not have** stayed.

Linh: Wasn't there a warning on the news? They **should have been** / **should have** warned right away.

Jesse: No, at first there was no warning to evacuate. Later the governor went on TV and gave the evacuation order.

Linh: So, did they evacuate then?

Jesse: Not at first. They **should have been** / **should have** evacuated right away, but they didn't. At last, my mother called them and convinced them. They **might not have been** / **might not have** left otherwise. It was a good thing she did because their home was badly damaged. They **could have been** / **could have** hurt.

Linh: It's a good thing that they left. Miami got hit very badly. The city **should have been** / **should have** more prepared for the hurricane.

D MAKE IT PERSONAL. Complete the sentences with your own opinions.

You were in your car. You turned on the radio and heard there was a thunderstorm. You parked your car in a parking lot and sat under a tree for protection. Lightning hit a tree near you. You were very lucky.

1. You could have _____.

2. You might not have _____.

3. You should have _____.

4. You shouldn't have _____.

DICTIONARY SKILL: Finding the right meaning

Many English words have more than one meaning. When a dictionary entry has more than one meaning, you will see a number (1, 2, 3, etc.) before each meaning or *definition*. The first meaning is the most common one. Look at the example.

haz·ard¹ /'hæzəd/ *n.* [C] **1** something that may be dangerous or cause accidents, problems, etc.:
a health hazard | the hazards of starting your own business
2 occupational hazard a problem or risk that cannot be avoided in the job that you do—**hazardous**
adj.: *hazardous waste from factories*

Read each pair of definitions and sentences. Complete each pair with one word in the box. Check your answers in a dictionary.

disaster flood safe uproot

1. Not likely to cause or allow any physical injury or harm: *Have a _____ trip.*
Not involving any risk and very likely to succeed: *U.S. Treasury bonds are considered a _____ investment.*
2. To pull a plant and its roots out of the ground: *The elephant's trunk is powerful enough to _____ trees.*
To force a person or people to leave a home or homeland and move to a different place: *Because of the war in Kosovo, Genti had to _____ his family and move to the United States.*
3. A sudden event such as a hurricane that causes great harm or damage: *Hurricane Katrina was a terrible natural _____.*
A complete failure: *The party was a total _____! The food was terrible and the music was too loud.*
4. A very large amount of water that covers an area that is usually dry: *The _____ was caused by the storm, which brought a huge amount of rain.*
A very large number of things or people that arrive at the same time: *The TV station has received a _____ of complaints about last night's show.*

WORD STUDY: Understanding word families

Most English words belong to a word “family.” These words all have related meanings but different forms of speech. For example, *rotate* (verb), *rotation* (noun), and *rotating* (adjective) all belong to a word family. They all describe turning in a circle around a fixed point.

- A** Complete the chart of word families. Write the missing words and check your answers in a dictionary. More than one form is sometimes possible for some parts of speech. If a part of speech does not exist for that word, write *X*.

Verb	Noun	Adjective
center	center	
confide	confidence	
damage		damaged damaging
discriminate		discriminating
prevent		
	safe safety	safe
survive		surviving
trap	trap	

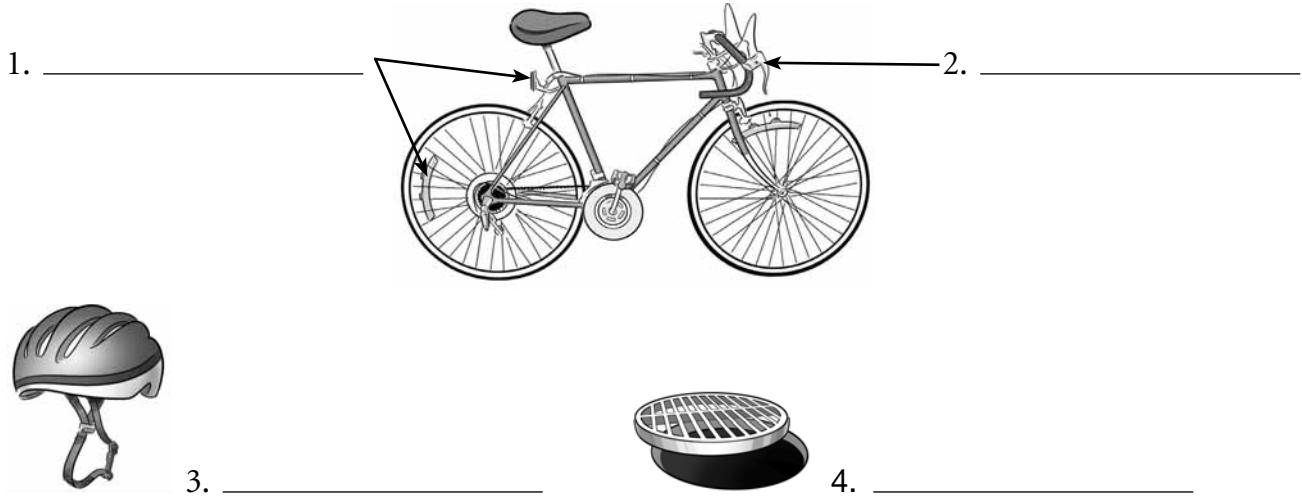
- B** Complete each sentence with the correct part of speech of the word in parentheses. Use the word families chart above as a guide.

1. “Tornado Alley” is located in the _____ (*center*) part of the United States.
2. She asked her coworker not to discuss the matter with anyone. She wanted to keep it _____ (*confide*).
3. The flood caused a huge amount of _____ (*damage*) to their property.
4. The law prohibits _____ (*discriminate*) against people on the basis of race, religion, sex, or age. This means that it is against the law to treat people unfairly because of their race, religion, sex, or age.
5. OSHA is an organization that sets standards for the _____ (*prevent*) of unsafe and unhealthful situations in the workplace.
6. If you want to _____ (*survive*) a powerful hurricane, it is important to have a good emergency plan.
7. The woman was rescued after eight days of being _____ (*trap*) in the rubble.

LIFE SKILLS

A Match the words in the box to the pictures. Write the words.

hand brakes helmet reflectors sewer grate



B Read the safety poster. What is the topic?

BICYCLE SAFETY IS NO ACCIDENT

Bicycle accidents kill 900 people every year, and send about 567,000 to hospital emergency rooms with injuries. Studies have shown that helmet use reduces injuries by 85 percent. Follow these rules when you ride:

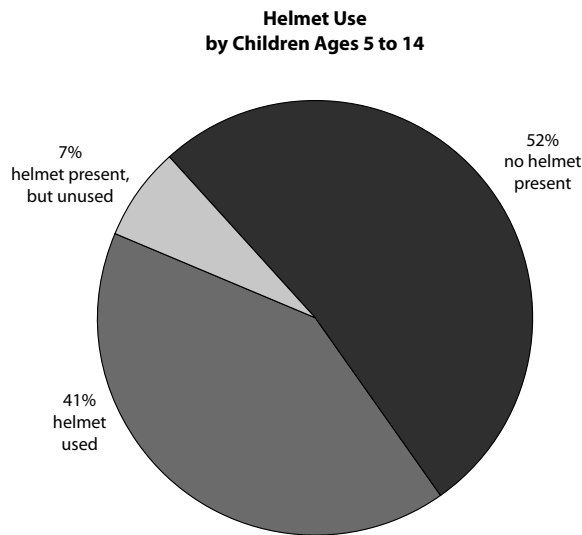
■ Always wear a helmet to help prevent head injuries.	■ Walk—don't ride—your bicycle across busy intersections and left-turn corners.
■ Observe all traffic laws and signals, just as cars must do.	■ Avoid riding in wet weather. When the road is wet, handbrakes may require a longer distance to stop.
■ Don't ride double (with two people) on a bicycle.	■ Avoid riding in the dark. If you do, be sure the bike is equipped with a headlight, a taillight, and reflectors. Wear light colors and reflective vests and jackets.
■ Ride near the curb and in the same direction as traffic.	■ Avoid loose clothing or long coats that can catch in pedals or wheels.
■ Find alternate routes rather than ride through busy intersections or through heavy or high-speed traffic. Always look out for traffic.	■ Avoid crossing raised sewer grates.

C Read the statements about the safety poster. Write *T* (true) or *F* (false).

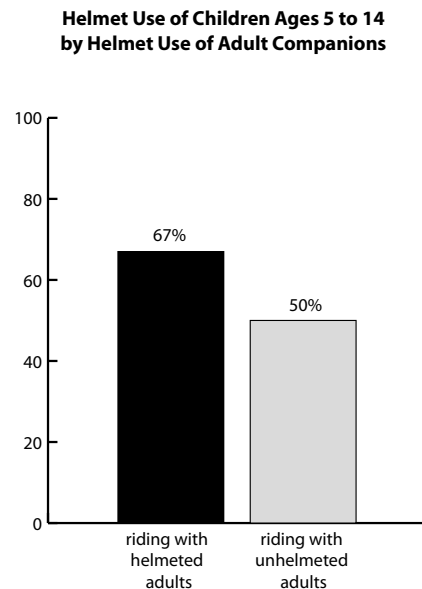
- ___ 1. If you ride a bicycle at night, you should wear special clothing so drivers can see you.
- ___ 2. It is safe to ride over a sewer grate on a bicycle if you ride slowly.
- ___ 3. If you wear a bicycle helmet, there is a much greater chance that you will not get a head injury in an accident.
- ___ 4. When you ride a bicycle in wet weather, the brakes work faster than they usually do.
- ___ 5. If you see a stoplight, it is OK to ride through it on a bicycle if you do not see any car coming within 50 feet.
- ___ 6. When you ride a bicycle, you should ride with the traffic facing you so that you can see oncoming cars.

STUDY SKILL: Read a pie chart and a bar graph

Read the charts that show children’s use of helmets. Answer the questions.



Source: National SAFE KIDS Campaign, May 2004



- 1. What percentage of children did not have a helmet? _____
- 2. What percentage of children had a helmet but did not use it? _____
- 3. What does the study about children and adults show? _____
 - a. When children ride with adults, more children wear helmets.
 - b. When children ride with adults, fewer children wear helmets.
 - c. Children are not influenced by adult companions.

READ

Read the article. Highlight the common workplace injuries and illnesses.

Reading Skill:

Monitoring comprehension

Monitoring your comprehension will help you understand difficult texts, such as government documents. Reread such texts slowly and carefully. List any difficult words. Try to figure out their meanings from clues in the surrounding words and sentences. If you can't figure out a word, look it up in a dictionary. Then try to restate the information in your own words.

INJURIES AND ILLNESSES

Workplace injuries and illnesses are a problem for many people. Statistics show that in the United States, accidents and illnesses happen most frequently in mid-size companies (50 to 249 employees). Approximately 50 percent of all injuries and illnesses result in employees missing work. Listed below are some common injuries and illnesses.

Slips and Trips

Many accidents happen each year when employees trip over objects in the workplace. These are usually items put in places they shouldn't be. Slipping on wet floors also causes many injuries. This type of injury can happen in any work setting.

Sprains and Strains

A lot of people sprain or strain muscles at work. These types of injuries are usually caused by manual labor such as lifting, pushing, pulling, or carrying heavy objects. These injuries occur most commonly in warehouses.

Shocks

Electrical equipment can cause shocks. Only licensed electricians should ever touch equipment that can have an electrical discharge. Dangerous equipment needs to be labeled with signs that indicate shock or voltage.

Hearing Loss

Hearing loss is a common workplace injury in jobs where people are exposed to extremely loud noises over an extended period. People who work in factories often have hearing loss. Because of new safety regulations, the number of people suffering hearing loss has been decreasing every year.

Carcinogens

Carcinogens are substances that cause cancer. Asbestos is a well-known carcinogen. This material is sometimes put behind walls or above ceilings to fireproof or insulate buildings. It isn't used anymore, but it is still present in many older buildings. Workers can develop lung cancer from breathing in asbestos. People who work in an environment with asbestos or other carcinogens need to wear protective respiratory equipment.

Other Biohazards

In addition to cancer-causing materials, work sites may have other substances that are biological hazards. For example, hospitals have many biohazards from sick patients. These substances carry microorganisms that could give workers viral infections such as rubella or tuberculosis. Workers need to handle biohazardous materials carefully and dispose of them safely.

CHECK YOUR UNDERSTANDING

A Match the signs with the headings in the article.



B Read the statements. Write *T* (true) or *F* (false).

- ___ 1. Asbestos is a material that can cause cancer.
- ___ 2. Construction workers may be exposed to asbestos.
- ___ 3. Biohazards can cause viruses, infections, or other illnesses.
- ___ 4. Slips and trips usually only happen in office buildings or factories.
- ___ 5. More workers are suffering hearing loss now than they did in the past.

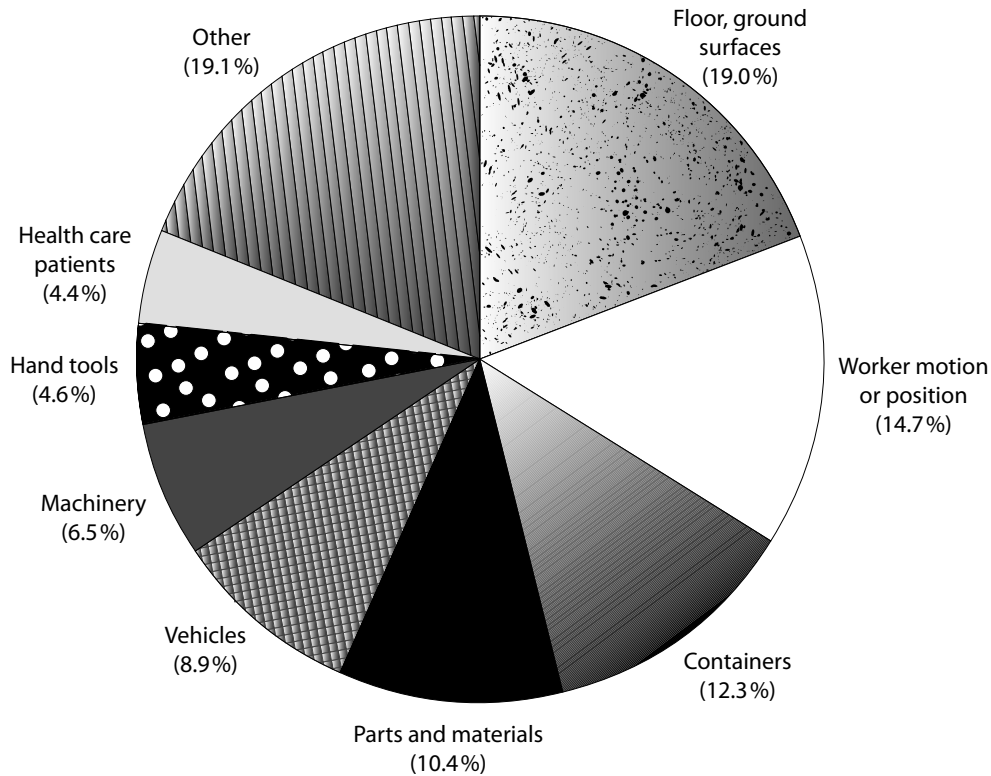
C Match the words from the article with the definitions. Write the letters.

- | | |
|-----------------------------|--|
| 1. ___ occur | a. dangerous materials |
| 2. ___ manual labor | b. happen |
| 3. ___ hazardous substances | c. a long time |
| 4. ___ extended period | d. work done by hand, without machines |

Lesson 8: Life Skills and Study Skills

LIFE SKILLS

Look at the chart showing workplace injuries and illnesses. Circle the correct answers.



1. According to the chart, which of these results in more accidents?
a. parts and materials b. worker motion or position c. containers
2. What percentage of accidents is caused by floor and ground surfaces?
a. 19 b. 14.7 c. 19.1
3. What category has the lowest number of illnesses and accidents?
a. hand tools b. health care patients c. machinery
4. What percentage of accidents is caused in health care settings?
a. 10.4 b. 14.7 c. 4.4

STUDY SKILL: Make inferences

Read about the workplaces. What is the health hazard in each one? Write the correct words in the box.

chemical hazard

electrical hazard

excessive noise

extreme temperatures

worker motion or position

1. Javier is an exterminator who sprays pesticides in people's homes to kill insects. Recently, he has been having trouble breathing. He coughs a lot, and he sometimes has headaches.

2. Lin works in a meatpacking factory. The machines are very loud. She has noticed that she often cannot hear people.

3. Sam works in the boiler room of a large company. Recently, he has been having sweaty palms, his safety glasses fog up, and he feels dizzy.

4. Anna is a medical claims processor. She works on the computer all day, and her job involves a lot of typing. Lately she has been getting shooting pains in her right hand and arm.

5. Ming works as a florist in a small garden center. There are extensions cords all over the floor. Yesterday, when she plugged in the fan by her desk, there was a crackling noise and smoke came out of the electrical outlet.

READ

Read about fire safety. Underline the imperatives. Circle any signal words.

How to Prevent Fires in the Home

The Home Safety Council reports that fires and burns are the third leading cause of unintentional injury and related deaths in the home. Most of these fires could be prevented. For example, some fires have started when people smoked at home and did not extinguish the cigarette. Follow these safety tips to reduce the chance of fire in your home.

First, identify the most common sources of fires in the home. Many fires start in the kitchen. Do not leave the room when you are cooking. If you must leave, then turn off the stove. Make sure that all flammable materials, such as towels and oven mitts, are kept away from the stove. You should not wear loose clothing when cooking.

Electrical appliances and cords also cause fires. If an appliance overheats or sparks, turn it off immediately and unplug it. It's important to replace the appliance or to have it professionally repaired. Extension cords should only be used on a temporary basis. Do not place electrical cords under rugs



or in areas where people walk. Cover unused outlets with safety caps, especially if there are small children in the home.

Candles should be used with care. Never place candles near something that could burn. Blow out all candles when you leave a room. Do not use candles in bedrooms or other areas where people sleep.



After you have identified potential hazards, the next step is to install alarm systems. Make sure every floor of the home and every bedroom has a smoke alarm. Test the alarms once a month to be certain they're working. Also, consider installing a home sprinkler system. Sprinklers greatly increase your chances of surviving a home fire.

Finally, have an escape plan. Try to have two escape routes from every room. Practice your escape plans with your family at least once a month. These simple precautions can save your life and the lives of your family members.



Review & Expand: Vocabulary

A Match the words with their definitions. Write the letters.

- | | |
|------------------|--|
| ___ 1. furnish | a. strong and not likely to break or be hurt |
| ___ 2. toxic | b. supply or provide something |
| ___ 3. comply | c. a particular type of solid, liquid, or gas |
| ___ 4. sturdy | d. poisonous |
| ___ 5. substance | e. do what you are asked to do or what a law or rule tells you to do |

B Use the words in Exercise A to complete the sentences.

1. Residents were asked to _____ with the evacuation order because the city was in the direct path of the hurricane.
2. It is important to keep _____ liquids in tightly sealed containers and out of reach of small children.
3. The Red Cross will _____ everyone in the emergency shelter with a blanket and other necessities.
4. After the storm, the fish in the river were covered with a dark, oily _____.
5. Although the building looked _____, it collapsed during the earthquake.

C Make vocabulary cards for the words *substance* and *toxic*. For each word, include one expression that uses the word.

Learning Strategy:

Expressions with key vocabulary

Recording expressions that use key vocabulary is a good way to learn the vocabulary. For example, a **health hazard** is something that poses a threat to your health.