A THIRSTY WORLD 4

Three million black plastic balls help turn away the sun's UV rays and protect the drinking water in the Ivanhoe Reservoir in Los Angeles California, USA.

ACADEMIC SKILLS

LISTENING Listening for Problems and Solutions
Using a T-Chart
SPEAKING Asking for and Giving Opinions
Suffixes and Syllable Stress
CRITICAL THINKING Prioritizing

THINK AND DISCUSS

1 Look at the photo. What do you think these people are doing?
2 Which do you think is a bigger problem—too much water, or not enough water?

EXPLORE THE THEME

Look at the infographic and read the information. Then discuss the questions.

1. What is *Hidden Water*, or *virtual water*?
2. How many gallons of water are required to produce a cup of tea? A pair of jeans? A T-shirt? A pound of figs?
3. Which kind of diet requires more water: a mostly vegetarian diet or a diet that includes meat? Why?
4. Does any of the information from the infographic surprise you? Will it cause you to change any of your everyday habits?

HIDDEN WATER

The world consumes trillions of virtual gallons of water. When you serve a pound of beef, you are also serving 1,857 gallons[1] of water. A cup of coffee? That's 37 gallons, enough water to fill the average bathtub. When you wear a pair of jeans, you're wearing 2,900 gallons. This is the amount of fresh water that we consume but don't actually see. It's called *virtual water:* the amount of water used to create a product.

[1]one gallon = 3.785 liters

ANIMAL PRODUCTS

Virtual-water totals include the amount of water used to raise the animals and make the product into food (e.g., making milk into cheese).

589 PROCESSED CHEESE

400 EGGS

371 FRESH CHEESE

138 YOGURT

MEAT

The virtual water for meat is the water the animals drink and the water used to grow their food and clean their living areas.

1,857 GALLONS OF WATER USED TO PRODUCE ONE POUND OF BEEF

469 CHICKEN

FRUITS AND VEGETABLES

Both rainwater and irrigation water are included in the virtual-water totals for fruits and vegetables.

379 GALLONS FOR A POUND OF FIGS

154 AVOCADOS

109 CORN

193 PLUMS

43 BEANS

31 POTATOES

25 EGGPLANTS

185 CHERRIES

103 BANANAS

84 APPLES

78 GRAPES

55 ORANGES

33 STRAWBERRIES

EVERYDAY ITEMS

Cotton is used to make many items that we wear and use every day, such as T-shirts, jeans, and bedsheets, and it requires a lot of water.

2,900 GALLONS TO PRODUCE ONE PAIR OF BLUE JEANS

2,800 ONE COTTON BEDSHEET

766 ONE COTTON T-SHIRT

634 ONE BURGER

9 ONE CUP OF TEA

37 ONE CUP OF COFFEE

53 ONE GLASS OF MILK

WHY MEAT USES MORE WATER

A human diet that regularly includes meat requires 60 percent more water than a mostly vegetarian diet. This is due to the amount of water needed to raise cattle. The graphic on the right shows the amount of water needed to raise an average cow (approximately 3 years).

88,400 GALLONS FOR 18,700 POUNDS OF FEED + 6,300 GALLONS FOR DRINKING + 1,900 GALLONS FOR CLEANING = 816,600 GALLONS USED DURING THE LIFE OF THE ANIMAL

A Vocabulary

MEANING FROM CONTEXT

A 1.27 Read and listen to the statements in the quiz below. Notice each word in **blue** and think about its meaning.

QUIZ: HOW MUCH DO YOU KNOW ABOUT WATER?

1. The Amazon River **supplies** about 20% of the fresh water that enters the world's oceans.	T	F
2. Farmers **require** 911 gallons (3,450 liters) of water to produce 2.2 pounds (1 kilogram) of rice.	T	F
3. The **risk** of disease is high if the water you drink is not clean. About 1 million people die each year from drinking dirty water.	T	F
4. Farming uses a **significant** amount of water—up to 40 percent of the fresh water used worldwide.	T	F
5. The United States has built more than 80,000 dams[1] to **manage** water for different uses such as producing electricity.	T	F
6. Scientists say that 13 gallons (50 liters) of water per day is **adequate** for one person.	T	F
7 You can **collect** water in a desert with just a sheet of plastic and an empty can.	T	F
8. Water is a renewable **resource**, so we can use the same water again and again.	T	F
9. The Nile River in Africa (the longest river in the world) **flows** through four different countries.	T	F
10. People in Australia use the smallest **amount** of water of any country in the world.	T	F

[1]**dam** (n): a wall built across a river to stop the water from flowing, often to make electricity

B Match each word in **blue** from exercise A with its definition.

1. _____ supplies (v)	a. material people can use
2. _____ require (v)	b. how much there is of something
3. _____ risk (n)	c. possibility that something bad will happen
4. _____ significant (adj)	d. enough
5. _____ manage (v)	e. moves slowly without stopping
6. _____ adequate (adj)	f. to bring together
7. _____ collect (v)	g. gives or provides something
8. _____ resource (n)	h. to need
9. _____ flows	i. important, meaningful
10. _____ amount (n)	j. to use carefully

A hiker filters water in the Talkeetna Mountains near Palmer, Alaska, USA.

C Take the quiz from exercise A. Choose T for *True* or F for *False* for each statement.

D Work with a partner. Compare and discuss your answers from the quiz. Then check your answers at the bottom of this page.

VOCABULARY SKILL Recognizing Suffixes

Adding a suffix to a word changes its part of speech, or grammatical function. For example, the suffixes *-ion /-tion/-ation*, *-ance/-ence,* and *-ment* change verbs to nouns. Recognizing suffixes and parts of speech can help you build your vocabulary.

Verb	Noun
preserve	preservation
govern	government
occur	occurrence

E Choose the correct form of the word to complete each sentence. Then compare your answers with a partner's.

1. Chemistry 101 is a (require / requirement) for my major, so I have to take the course.
2. I have an interesting (collect / collection) of stamps from different countries.
3. Where I live, rainstorms (occur / occurrence) frequently in summer.
4. We (depend / dependence) on fresh water for many things in our daily lives.
5. Good water (manage / management) can help our city during the dry season.
6. Desert plants (require / requirement) very little water to grow.

F Work in a group. Discuss these questions.

CRITICAL THINKING: ANALYZING

1. What are the risks of not having enough water? Of having too much water? Do you know of any places that have experienced these problems recently?
2. Besides water, what are some things you require each day?
3. How is the water supply in your country? Is it difficult to get an adequate amount of clean water where you live?
4. Good management of natural resources can make them last longer. Besides water, what are some natural resources that people need to manage well?

Answers: The false statements are 3. (about 6 to 8 million people die each year), 4. (around 70 percent of fresh water is used for farming), 9. (11 different countries), and 10. (Mozambique, in Africa).

The Itaipu Dam, on the border between Brazil and Paraguay, was built across the Paraná River.

A Listening A Talk about the Itaipu Dam

BEFORE LISTENING

PRIOR KNOWLEDGE

A Work with a partner. Look at the map and photo, and discuss these questions.

1. What do you know about Brazil and Paraguay? Have you ever been to those countries or read news stories about them?
2. The photo shows the Paraná River behind the Itaipu Dam. Can you explain what a dam such as this does?

WHILE LISTENING

LISTENING FOR MAIN IDEAS

B 1.28 ▶ 1.6 Listen to a talk and check (✓) the main idea.

- ☐ The Itaipu Dam is one of the largest dams in the world.
- ☐ Building the Itaipu Dam forced many families to leave their land.
- ☐ The Itaipu Dam is good for the economies of Brazil and Paraguay.
- ☐ There are both benefits and problems with the Itaipu Dam.

NOTE-TAKING SKILL Using a T-Chart

Using a T-chart is a helpful way to take notes on two aspects of a topic such as benefits and problems, advantages and disadvantages, or facts and opinions. Having your notes organized in a T-chart is also helpful when you need to review or study the information later.

Farming	
Benefits	**Problems**
produces food	*requires a lot of water*

NOTE TAKING

C 1.28 Listen to the talk again, and complete the notes in the T-chart with the information you hear.

Itaipu Dam (Paraná River, Paraguay and Brazil)	
Benefits	**Problems**
– Building the dam created jobs: about _____(1)_____ workers were required. – Good for economy: 1. Provides about _____(2)_____ % of the electricity used in Brazil and about _____(3)_____ % in Paraguay. 2. Tourist attraction: _____(4)_____ can go on free tours and go _____(5)_____ in natural areas. – Supplies water that _____(6)_____ can use during times of drought.	– Reservoir covered _____(7)_____ square miles of _____(8)_____ with water. – Around _____(9)_____ families lost their _____(10)_____ and had to leave the area. – Some _____(11)_____ and _____(12)_____ sites now underwater. – Farmers say reservoir may be raising _____(13)_____ temperatures by as much as 4°C. – Not everyone thinks the _____(14)_____ between the two countries is _____(15)_____.

AFTER LISTENING

CRITICAL THINKING: ANALYZING

D Work with a partner. Decide which person (or people) would agree with each of the statements below. Then discuss the statements and give reasons for the ones you agree with.

1. _____ The problems with the dam are more significant than the benefits it provides.
2. _____ It might be necessary for some families to lose their land if the result is electricity for many people.
3. _____ The benefits of the dam are more significant than the problems.
4. _____ More countries should build very large dams to manage their water.

a. The guest speaker

b. A family who lost their land

c. The owner of a tourism company near the dam

d. A farmer who grows food crops near the dam

e. You

A Speaking

GRAMMAR FOR SPEAKING Active and Passive Voice

In the active voice, the subject performs or does the action.

*The dam **provides** electricity for many people.*

In the passive voice, the subject receives the action.

*Electricity **is provided** by the dam.*

We form the passive voice with the verb *be* plus the past participle of a verb.

*The water in our city **is managed** carefully.*
*How **is** this word **pronounced**?*

We often use the passive voice to talk about processes.

*Water **is collected** in containers and **used** for washing clothes.*

We use *by* with the passive when we want to specify *who* or *what* did the action.

*These books were given to us **by the school**.*

A Underline the verb form in each sentence. Choose P for *Passive Voice* or A for *Active Voice*. Then complete each sentence to make it true.

1. Rice is grown in countries such as _____ and _____. P A
2. In my country, a lot of electricity is provided by _____. P A
3. Nowadays, many people study online instead of in _____. P A
4. At my house, we use a significant amount of water for _____. P A
5. In my country, children are taught to _____. P A
6. My favorite dish is made with _____. P A

B Work with a partner. Take turns saying and explaining your sentences from exercise A.

> *Rice is grown in countries such as India and Thailand.*

C Take turns asking and answering these questions with a partner. Use the passive voice in your answers.

> *Coffee is grown in Brazil, Colombia, . . .*

1. Where does coffee grow?
2. Who owns or rents the house or apartment next to yours?
3. Who manages the money in your household?
4. What are some of the ways people use smartphones?
5. What kind of people collect coins?
6. Who corrects the homework in this class?

A woman fills a watering can with rainwater in Basalt, Colorado, USA.

PRONUNCIATION Suffixes and Syllable Stress

1.29 When the suffixes *-tion*, *-ity*, *-ial*, and *-ical* are added to words, the stress changes. The syllable just before each of these suffixes receives the main stress, or primary stress.

Paying attention to suffixes and syllable stress can help you improve your listening comprehension and pronunciation skills.

-tion
***e**ducate* → *edu**ca**tion*

-ity
*a**vai**lable* → *availa**bi**lity*

-ial
***in**dustry* → *in**dus**trial*

-ical
***hi**story* → *hi**stor**ical*

D 1.30 Underline the syllable with the main stress in each **bold** word. Then listen and check your answers.

1. **politics** — It was a significant **political** event.
2. **resident** — This is a **residential** apartment building.
3. **apply** — We turned in our **application** before the due date.
4. **possible** — There is a **possibility** of finding water on other planets.
5. **inform** — We need more **information** before we make a decision.
6. **theory** — This is only a **theoretical** situation. It's not real.

E Work with a partner. Take turns reading the sentences from exercise D aloud. Pay attention to the suffixes and syllable stress.

F Take turns asking and answering these questions with a partner. Pay attention to suffixes and syllable stress. PERSONALIZING

1. Many people enjoy being active. What are some of the activities you like to do in your free time?
2. People define the word *busy* in different ways. What is your definition of *busy*?
3. Parents influence their children in important ways. Who else has been influential in your life?
4. Many people want to conserve electricity. What are some devices you use that consume a significant amount of electrical power?

LESSON TASK Presenting a Clean Water Device

CRITICAL THINKING: EVALUATING

A **Work in a group. Read the situation below and the information about three clean water devices on this and the next page. Use the information to say sentences about each device. Use the passive voice. Then discuss the questions that follow.**

> *The drum is used to bring clean water to houses.*

Situation: You work for an organization called Safe Water Now. Your organization wants to spend $1 million for a new device that will help provide clean water for people. You have to give a presentation to the directors of your organization that explains which device is best and why.

1. What problem does each device try to solve?
2. Who could benefit from each device?
3. How easy or difficult do you think it is to make each device and get it to people?

Device 1 The **Q Drum** carries 13 gallons (50 liters) of water easily.

- drum/use to bring clean water to houses
- rope/put through a hole
- drum/pull/not carry
- drums/make/in South Africa
- drums/sell for $70

Device 2 The **KickStart Pump** helps farmers provide more water for their crops.

- pump/sell to farmers in Africa
- pump/operate with your feet
- more crops/grow with the water
- money from crops/use for family's health and education
- pumps/make in Kenya/sell for $70

Device 3 The **LifeStraw** provides clean water for one person for a year.

- LifeStraw/use with any kind of dirty water
- one end/put in a person's mouth/the other end/put into water
- LifeStraw/use in emergency situations and for camping
- no electrical power/require to use the LifeStraw
- LifeStraw/make by a Swiss company/sell for about $20

A man uses a LifeStraw in Yosemite National Park, California, USA.

B **With your group, follow the steps below to plan your presentation.** ORGANIZING IDEAS

1. Decide which device you will present to the directors.
2. Plan what you will say. Use the passive voice when appropriate. Your presentation should answer these questions:
   - Which device did your group choose?
   - How does the device work?
   - Who will this device help? How will it help them?
   - Why do you think this is the best device?
   > *It's easier to use because the drum is pulled, not carried.*
   > *More crops can be grown with the water from the pump, which helps farmers.*
3. Decide which information each member of your group will present.
4. Write notes to help you with your part of the presentation.
5. Practice your presentation.

PRESENTATION SKILL Speaking at the Right Volume

When you are giving a presentation, you need to speak a little louder than normal so your audience can hear and understand you. This also shows that you are confident. At the beginning of your presentation, check your volume with your audience. Here are some questions you can ask:

Can everyone hear me? *Is my volume OK?*

C **With your group, give your presentation to the class. Remember to speak at the right volume.** PRESENTING

Video

White-water rafters, Grand Canyon, Arizona, USA

Dam-Release Rafting

BEFORE VIEWING

A Read the information about the video you are going to watch. Use your dictionary to help you with any words you don't know.

MEET JONNY PHILLIPS AND RICHARD AMBROSE. They're industrial scientists from the United Kingdom. They are also the hosts of a BBC documentary television show called *I Didn't Know That,* and they're known for doing dangerous and exciting activities. In this video, Jonny and Richard introduce us to an unusual kind of water sport: dam-release[1] rafting. In a country that's not known for its mountainous landscapes, this may be the only way to experience the excitement of whitewater rafting[2].

[1]**release** (v): to let go or set free
[2]**whitewater rafting** (n): rafting that takes place on fast-moving rivers with rough water

PREDICTING

B Check (✓) the things you think you will see or learn about in the video. Then compare your predictions with a partner's.

☐ a dam	☐ a mountain	☐ how water is released from a dam
☐ a raft	☐ a river or stream	☐ how to stay safe when rafting

WHILE VIEWING

C ▶ 1.7 Watch the video and check your predictions from exercise B.

CHECKING PREDICTIONS

D ▶ 1.7 Watch the video again and complete each quote from the video with the number that you hear.

UNDERSTANDING DETAILS

1. "This valve alone can release over _____ liters of water a minute."
2. "For water to be released for a whole day, it can cost _____ pounds."
3. "With the dam open, the amount of water flowing down this river increases to a massive _____ million liters."
4. "That's _____ times the normal amount, which means the boys will be traveling down it _____ times faster than normal!"

AFTER VIEWING

E Use the passive form of the verbs in parentheses to complete the steps for dam-release rafting.

1. First, a release of water *is requested* (request).
2. Second, money _____ (pay) for the release of water.
3. Next, a valve inside the dam _____ (open) to release the water.
4. After that, people in the raft _____ (carry) on a wild ride down the river.
5. Finally, the valve _____, (close) and much of the water stays behind the dam again.

F Work with a partner. Close your books and take turns retelling the steps for dam-release rafting from exercise E. Use the passive voice.

G Work in a group. Discuss these questions.

CRITICAL THINKING: ANALYZING

1. The kind of rafting you saw in the video is somewhat risky, and people can be hurt if they do it. Why do you think some people enjoy risky or even dangerous activities?
2. Is rafting a sport you might want to do? Explain.
3. Do you think there are any disadvantages to releasing the water from a dam for a water sport? Explain.

B Vocabulary

PERSONALIZING

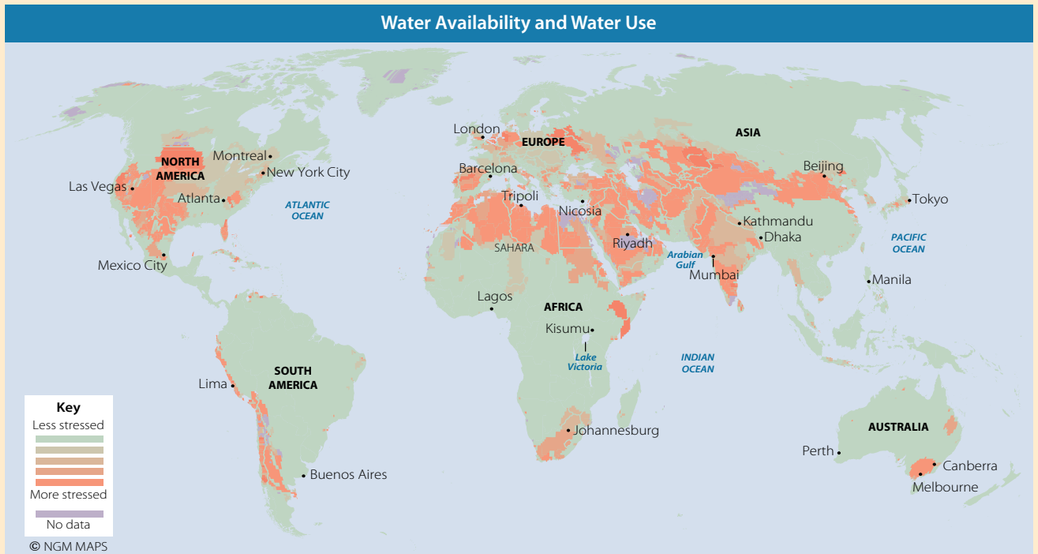
A **Work with a partner. Discuss these questions.**

1. Have you ever experienced a water shortage? Explain.
2. Are there any rules in your country about using water? Explain.

MEANING FROM CONTEXT

B 1.31 **Look at the map and read and listen to the information about "water-stressed areas" in the world. These are areas where the demand for clean water is greater than the supply. Notice each word in blue and think about its meaning.**

1. An **urgent** problem in the western United States is low levels of groundwater.
2. Water from rivers can be **distributed** to cities and farms where the water is needed.
3. Without adequate water for **agriculture**, a world food **crisis** is possible. If farmers do not have enough water for their crops, it could affect millions of people.



4. Farmers can **reduce** the amount of water they use. Learning about and practicing water **conservation** will allow them to do the same work with less water.
5. Parts of northern Africa are **extremely** dry. For example, the **average** yearly rainfall in the Sahara Desert is less than 1 inch (25 mm).
6. Water is **scarce** in many regions of the world, and people in these areas often do not have access to clean water.
7. Australia has **experienced** both drought and floods in recent years. This has been very difficult for the farmers there.

C **Complete each definition with the correct word in blue from exercise B.**

1. If you _____ (v) something, you moved it from one place to many other places.
2. _____ (n) means not using too much of a natural resource.
3. If something is _____ (adj), it is usual and normal.
4. _____ (n) is the science of growing plants and raising animals on farms.
5. If something is _____ (adj), you need to take care of it very soon.
6. A _____ (n) is a large and serious problem.
7. To _____ (v) something means to make it smaller or less.
8. If you _____ (v) something, it happened to you.
9. "_____" (adv) means to a very great degree.
10. If something is _____ (adj), there isn't a lot of it available.

EVERYDAY LANGUAGE Showing Interest

In conversation, it is polite to show interest. Here are some phrases you can use:

Really? *That's interesting.* *Uh-huh.* *I didn't know that.* *Wow!*

D **Work in a group. Say whether you agree or disagree with each of the statements below. Be sure to explain and give reasons for your opinions.** PERSONALIZING

1. I need to reduce the amount of water I use.
2. When there's a water crisis, it's usually caused by nature.
3. Not having enough clean water is an urgent problem in my country.
4. Water conservation is extremely important.

E **Work with a partner. Look at the map and the key on the previous page and complete the exercise.** CRITICAL THINKING: INTERPRETING A MAP

1. According to the map, what are three places where the water situation is urgent (very water stressed)? _____ _____ _____
2. According to the map, what are three that are not experiencing a water crisis. (less water stressed)?
   _____ _____ _____
3. List two places where the water situation is bad, but not extremely bad.
   _____ _____
4. Describe the water situation in your country according to this map. Do you agree with the information on the map? Explain.

B

Listening A Discussion about the Ogallala Aquifer

BEFORE LISTENING

A Read the information in the box. Then answer the questions below with a partner.

AQUIFERS

Aquifers are areas of rock under the ground that contain large amounts of water. Sometimes this water is easy to reach, but often it has to be pumped up out of the aquifer with a special device. In dry parts of the western United States, farmers use water from aquifers to irrigate their fields. Without this water, the fields might be too dry to grow certain food crops.

1. In your own words, what is an *aquifer*?
2. How do farmers in the western United States use the water from aquifers?
3. Why is the water from aquifers so important to these farmers?
4. Do you know of any other places where there are aquifers? If so, where?

WHILE LISTENING

LISTENING FOR MAIN IDEAS

B 1.32 Listen to the students' discussion and choose the correct answers.

1. What is the topic of the group presentation?

   a. Better Ways to Distribute Water
   b. What Caused the Aquifer Crisis
   c. How to Solve the Aquifer Crisis

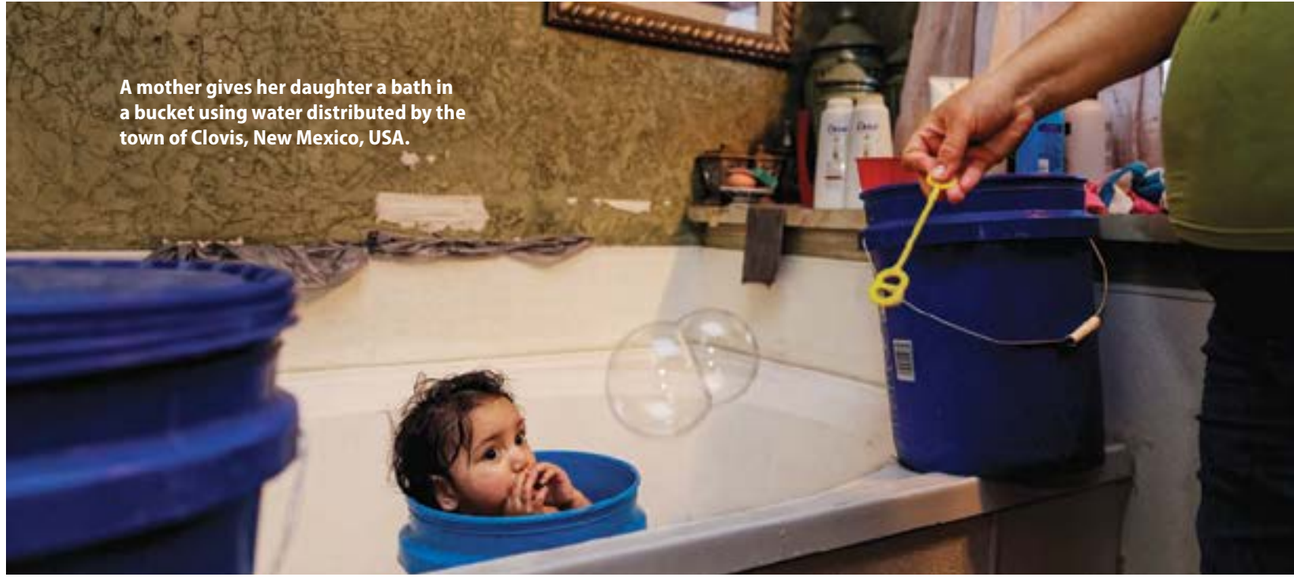
2. There is an "aquifer crisis" because _____.

   a. the water in the aquifer is difficult to reach
   b. people are using the aquifer water too quickly
   c. the water in the aquifer isn't clean

3. Dryland farming is a possible solution to the aquifer crisis because _____.

   a. it requires little water
   b. it's less expensive for farmers
   c. it's a good way to grow corn

Tractors put corn into huge piles at a feedlot near Imperial, Nebraska, USA.



A mother gives her daughter a bath in a bucket using water distributed by the town of Clovis, New Mexico, USA.

LISTENING SKILL Listening for Problems and Solutions

When listening to a talk or discussion about an issue, being able to recognize and link problems to their solutions will help you understand key ideas about the topic. When listening, pay attention to words and phrases that signal when a speaker is going to talk about a problem or a solution. Here are some examples:

The problem is . . .	*That's* ***one possible solution****, but* . . .
Here's the issue.	*Maybe* ***the best approach*** *is* . . .

C 1.32 Listen to the discussion again and complete the notes in the T-chart.

LISTENING FOR PROBLEMS AND SOLUTIONS

The Ogallala Aquifer	
Problems	Possible Solutions
– Water in aquifers being pumped out quickly (past 70 yrs.)	– Better ways to _____
– In parts of the western U.S., not enough water for 1. _____ 2. _____	– Water _____

AFTER LISTENING

D Work in a group. Compare your notes from exercise C. Then discuss these questions.

CRITICAL THINKING: EVALUATING

1. Which of the two solutions do you think would have more of an impact?
2. What other solutions might there be to the problems the students discussed?
3. What experiences have you had with group projects? Do you think the three students you heard were working together well? Explain.

B Speaking

SPEAKING SKILL Asking for and Giving Opinions

Here are some expressions you can use to ask people for their opinions:

Do you think . . . ? *What's your opinion of . . . ?*

What do you think about . . . ? *How do you feel about . . . ?*

Here are some expressions you can use when giving your opinion:

I think . . . *I feel that . . .* *In my opinion, . . .* *I don't think . . .* *If you ask me, . . .*

ASKING FOR AND GIVING OPINIONS

A **Work with a partner. Take turns asking for and giving opinions about the topics below. Then talk about some of your own ideas.**

A: *What do you think is the most interesting sport to watch in the Olympic Games?*
B: *In my opinion, it's skiing. I love watching the skiing events. How about you?*

sports in the Olympic Games	traveling to other countries	the weather today
owning a car	classical music	online classes

CRITICAL THINKING: APPLYING

B **Work in a group. Read the situation in the box, and look at the information in the chart below. Then discuss the questions on the next page. Use the expressions in the Speaking Skill box to ask for and express opinions.**

Situation: Your family lives in a small house. A large water pipe in your city broke yesterday, so there will be less water available to you until the pipe is fixed. It will take the city one whole week to fix the pipe. Each person in your family can use only 13 gallons (50 liters) of water a day, or a total of 91 gallons (350 liters) a week.

How much water do you need to . . .

. . . drink every day?
.5 gallons/2 liters a day

. . . wash the dishes?
8 gallons/30 liters

. . . wash fruits and vegetables?
2 gallons/8 liters

. . . flush the toilet?
3.5 gallons/13 liters

. . . do a load of laundry?
22 gallons/85 liters

. . . take a four-minute shower?
30 gallons/113 liters

. . . brush your teeth?
.25 gallons/.5 liters

. . . wash your face or hands?
.5 gallons/2 liters

1. What uses of water do you think are absolutely necessary every day?
2. What uses of water do you think are important, but perhaps not necessary every day?
3. What do you think are the best ways for your family to conserve water?

CRITICAL THINKING Prioritizing

When you have to make difficult decisions, it's important to be able to prioritize, or evaluate your options. This can help you to determine which things are most important in a certain situation and which things you need to do first.

C **Make a list of your family's water priorities. Then make a plan for how you will use water for a week. Remember to take notes and do the necessary arithmetic.**

CRITICAL THINKING: PRIORITIZING

D **Present your plan to the class. Explain how you prioritized your water usage.**

PRESENTING

FINAL TASK Role-Playing a Meeting

You are going to role-play a government meeting about how to manage the local water supply. In the meeting, you will try to decide how much water each of the different organizations should be allowed to use.

A **Work in a group of four. Read the situation below and the roles. Assign a role to each member of your group.**

Situation: The government built a new dam near a large city, and now the reservoir behind the dam is filling with water. Scientists determined how much water the city can take from the reservoir every year. Now the government will have a meeting to decide how to use that water.

Role #1: Manager of the City Water Company

- The population of the city has increased by 200,000 people in the last 10 years.
- Now there are strict rules about using water for gardens and washing cars.
- The price of water is very high.

Requested share: 30 percent of the total amount

Role #2: President of the National Farmers' Association

- Most farms are very small, and farmers don't earn much money.
- With more water, farmers could start growing cotton to sell to other countries.
- Farmers have had problems because there has been very little rain during the past few years.

Requested share: 60 percent of the total amount

Role #3: President of the International Aluminum Company

- The company wants to build a large aluminum[1] factory next to the reservoir.
- The factory would provide new jobs for more than 1,000 people.
- This would be the biggest factory in the region.

Requested share: 50 percent of the total amount

[1]**aluminum** (n): a lightweight metal with many uses

Role #4: Director of the National Parks Service

- Several kinds of rare fish and birds live in lakes that are connected to the reservoir.
- Foreign tourists often come to see and photograph these animals. The tourist industry is important to the local economy.
- If there isn't enough water, all the animals will die, and tourists will stop coming.

Requested share: 20 percent of the total amount

ORGANIZING IDEAS

B Prepare a one-minute talk to introduce your organization and present your viewpoint to the other members of your group. Take notes to help you remember your ideas. Your talk should answer these questions:

- Who are you? What organization or company do you work for?
- How much water does your organization need?
- Why does it need this amount of water?

C With your group, role-play the meeting. Take turns presenting your organizations and viewpoints. Decide how much water each organization will get. The amount must total 100 percent. Then report your group's decision to the class.

REFLECTION

1. What are two phrases you learned in this unit to help you express your opinion?

_____

_____

2. What is the most useful thing you learned in this unit?

_____

_____

3. Here are the vocabulary words from the unit. Check (✓) the ones you can use.

☐ adequate AWL	☐ distribute AWL	☐ resource AWL
☐ agriculture	☐ experience	☐ risk
☐ amount	☐ extremely	☐ scarce
☐ average	☐ flow	☐ significant AWL
☐ collect	☐ manage	☐ supply
☐ conservation	☐ reduce	☐ urgent
☐ crisis	☐ require AWL	