

Unit 5

Unit at a Glance

- ▶ **Language Focus:** Define and Explain, Clarify
- ▶ **Reading Strategy:** Make Connections
- ▶ **Topic:** Water

Every DROP

BIG Question

Why is
water so
important?

LJUBLJANA, SLOVENIA
A scientist analyzing a sample of waste water



Share What You Know



Do It!

- 1 **Think** of the things you did today that required water.
- 2 **Act** out one of the things for the class.
- 3 **Say** one reason why you think water is so important to our lives.



Define and Explain

Listen to Elena's song. Then use **Language Frames** to tell a partner what you think about the importance of water.

The Drought

Our farmland is dry and our soil is dust,
And there has been no rain.
This means there's a drought
And we are without
Fresh water for our grain.
For example, our wheat and corn
Have shriveled in the sun.
This happens because a drought has come,
Affecting everyone.

Tune: "Over the River and Through the Woods"

Language Frames

- _____ means _____.
- For example, _____.
- _____ happens because _____.

Song  



Science Vocabulary

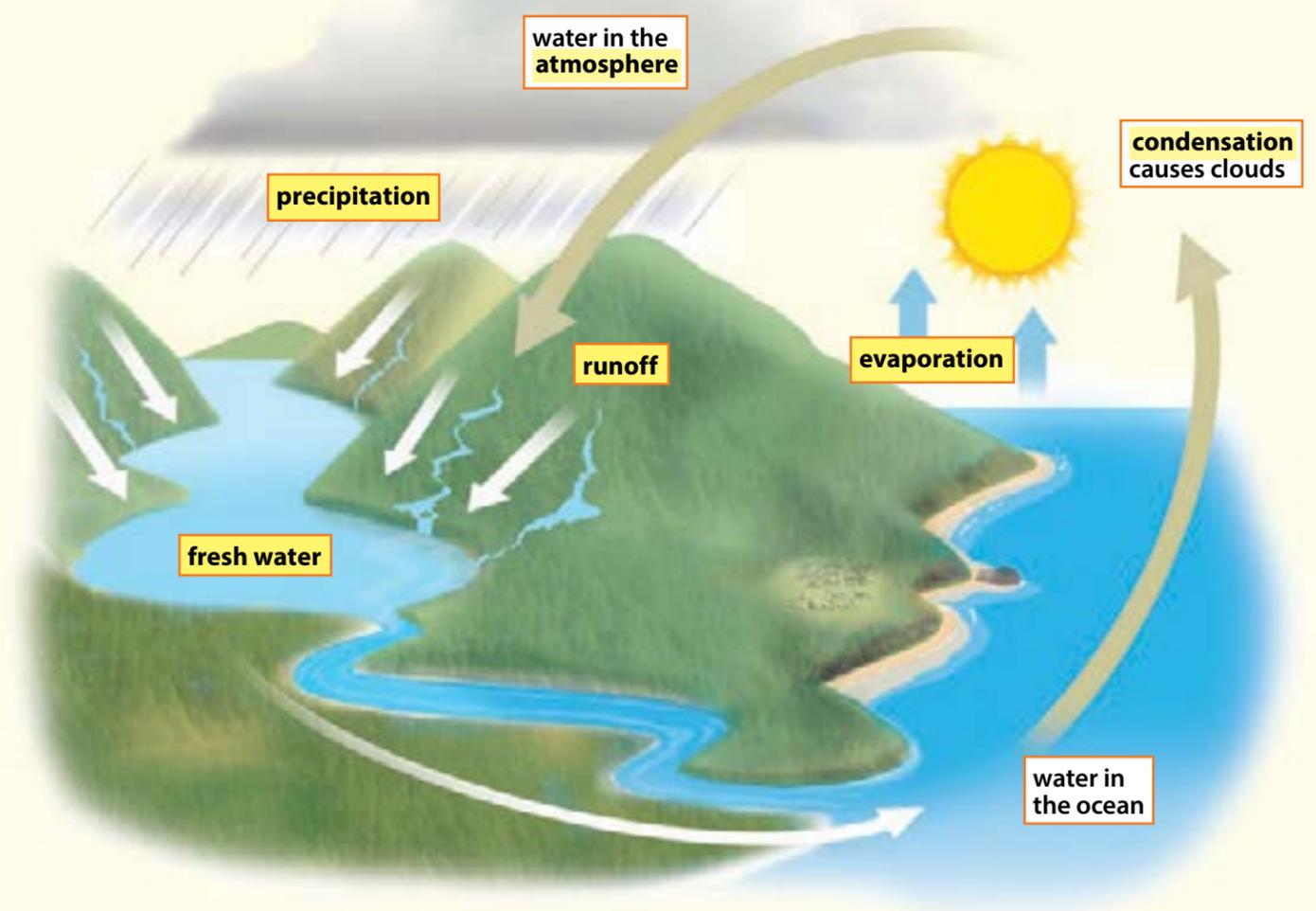
Key Words

A **watershed** is a group of habitats that surround a river or stream. Use **Key Words** and other words to talk about the **water cycle** within this watershed.

Key Words

atmosphere
condensation
evaporation
fresh water
precipitation
runoff
water cycle
watershed

The Water Cycle



Talk Together

How are we connected to the water cycle? In a group, use **Language Frames** from page 4 and **Key Words** to explain your answer.

Main Idea and Details

When you want to explain something, start with the most important idea. This is called the **main idea**. Then give **details** to add more information. Details tell more about the main idea.

The pictures show how a drought affected Elena's farm.



Map and Talk

You can make an outline to explain an event. Write the main idea about each picture. Add at least two details that support each main idea.

Outline

Use Roman numerals for the main idea.

I. How Droughts Affect a Farm

Use capital letters for details that support the main idea.

A. soil is dry as dust

B. grain doesn't grow

C. wheat and corn shrivel

II. How Droughts Affect People

A. farmer has no crops to sell

B. people have no grain to eat

Talk Together

Talk with a partner about the main reasons why water is important to your life. Your partner can make an outline.

Academic Vocabulary

More Key Words

Use these words to talk about "One Well" and "Picturing the Pantanal."

access

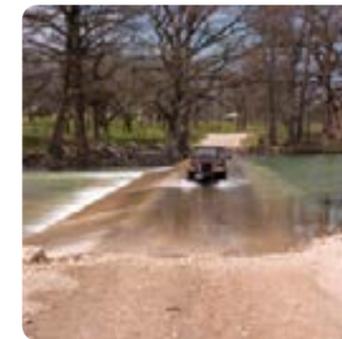
noun



When you have **access** to something, you can get or use it. A library offers access to many books.

consequence

noun



A **consequence** is the result of an action. A flood is a **consequence** of heavy rain.

conservation

noun



When you turn off lights, you are practicing **conservation**. You are using energy carefully.

deplete

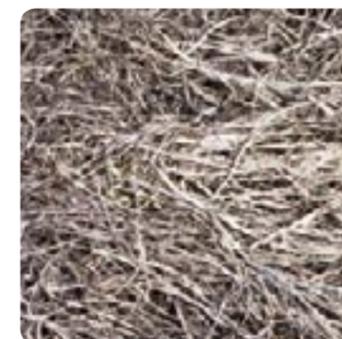
verb



When you **deplete** something, you use it up. They **depleted** the forest of trees.

shortage

noun



Shortage is when you don't have enough. In a water **shortage**, the grass turns dry and brown.

Talk Together

Make a Vocabulary Example Chart for the **Key Words**. Compare your chart with a partner's.

Word	Definition	Example
access	use of	I wish I had access to a swimming pool in my neighborhood.

Learn to Make Connections

Look at the photo. If it reminds you of something, then you have **made a connection**.



When you read, you **make connections**, too.

How to Make Connections



1. Think about what the text is about.

The topic is _____.



2. As you read, think about things in your life, or things you know, that relate.

_____ reminds me of _____.



3. Decide how the connection helps you understand the text.

Now I understand _____.

Language Frames



The topic is _____.



_____ reminds me of _____.



Now I understand _____.

Talk Together

Read Elena's personal narrative. Read the sample. Then use **Language Frames** to tell a partner about the connections you made.

Personal Narrative

A Visit to the Desert

I visited my aunt and uncle in California last month. They live in the desert. It's a beautiful place, with clear blue skies and tall mountains, but there is hardly any **precipitation** there. They always have a water **shortage**, so they are incredibly careful about not wasting water. We had to take really fast showers and never leave the tap running. We only used the washing machine when we had a full load of clothes.

Instead of a lawn that needs watering, my aunt and uncle have a rock garden. As a **consequence**, there are no flowers, grasses, or fruit trees. Those plants would all die without water. Except for cacti, there is not a green plant in sight!

The water **conservation** they practice is something I have decided to do, too. If we don't use water with care, we could **deplete** the supply we have. Then we won't have **access** to enough **fresh water** to meet all our needs. I plan to continue conserving water at home. I know it's the right thing to do. And I'm going to get all my friends and neighbors to do the same!

"The topic is what to do in a water shortage. Fast showers reminds me of a water shortage we had in our town. Now I understand the problems Elena's aunt and uncle have."

◀ = a good place to stop and make a connection



Read a Science Feature

Genre

A **science feature** is a nonfiction text about the natural world. Science features often include tables and other text features that give information visually. Science features are often longer than science articles, and they may have broader topics.

Text Feature

A **table** is made up of facts and numbers that are organized in rows and columns. Tables can help you quickly find and compare information.

Where Is the Water on Earth?

WATER LOCATION	PERCENTAGE OF ALL WATER
oceans	97.32%
icecaps and glaciers	2.14%
groundwater	0.61%
freshwater lakes	0.009%
inland saltwater seas	0.008%
moisture underground	0.005%
water in the atmosphere	0.001%
rivers	0.0001%

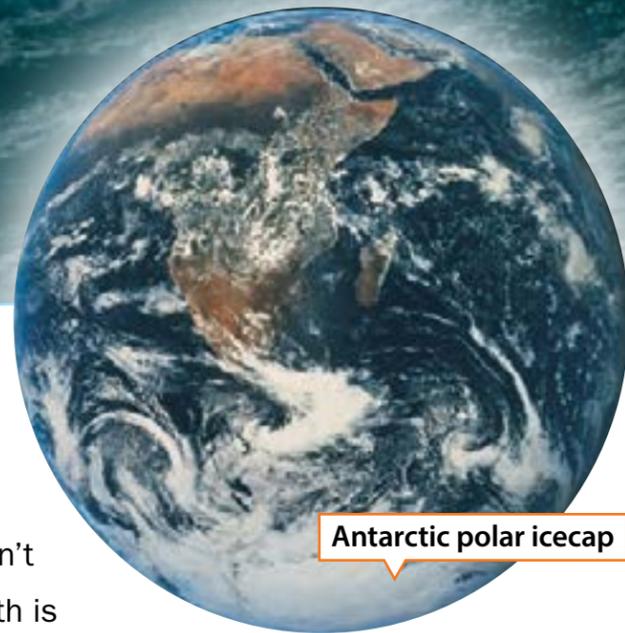
Diagram labels: "column head" points to the top row headers; "row" points to the first data row; "column" points to the first data column.

One Well

by Rochelle Strauss

► Set a Purpose

Learn about Earth's water.



Antarctic polar icecap

▲ If you look at Earth from space, most of what you see is water.

One Well

Imagine for a moment that all the water on Earth came from just one well. This isn't as strange as it sounds. All water on Earth is connected, so there really *is* just one source, one **global** well, from which we can **draw** all our water. Every ocean wave, every lake, stream, and underground river, every raindrop and snowflake and every bit of ice in **glaciers and polar icecaps** is a part of this global well.

Because it is all connected, how we treat the water in the well will affect every species on the planet, now and for years to come.

global worldwide

draw take

glaciers and polar icecaps the large areas of ice on Earth

Where Is the Water on Earth?

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▲ This table shows the distribution of water on Earth.

We live on a watery planet. Around 70 percent of Earth's surface is covered with water. This surface water is found in oceans, lakes, rivers, streams, marshes, even in puddles and morning **dew**. There is so much water that if you look down on Earth from space, it appears blue.

There is also water we can't see, beneath Earth's surface. This "groundwater" can be found just about everywhere. It fills the spaces between rocks, grains of sand, and soil. Most groundwater is close to Earth's surface, but some of it is buried deep underground.

dew **condensation**

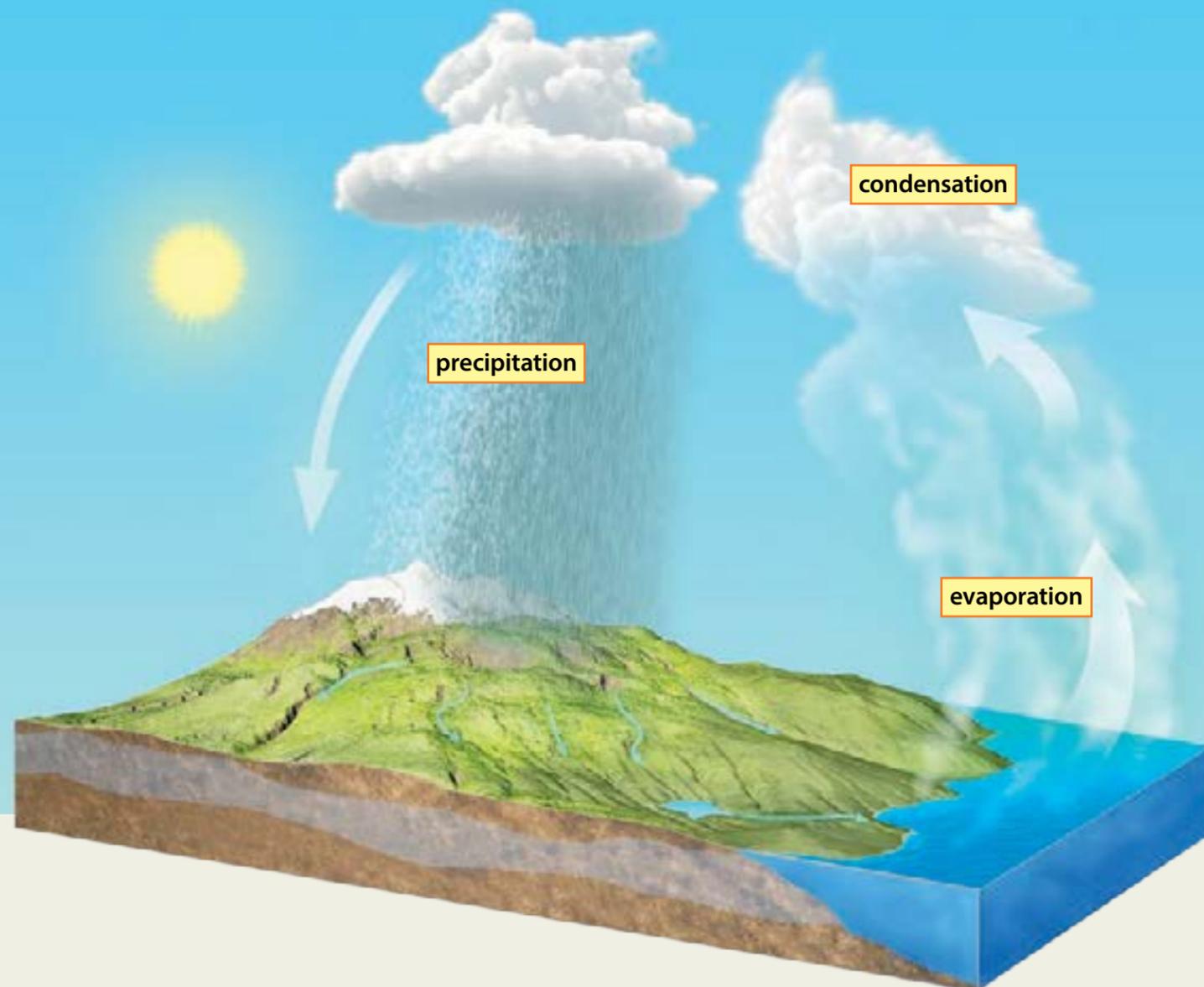
► Before You Continue

- 1. Figurative Language** What metaphor does the author use to describe the source of all water on Earth?
- 2. Use Text Features** How much of the water on Earth is found in the air?

Recycling Water in the Well

Did you know that there is the same amount of water now as there was 100 million years ago when dinosaurs walked the Earth? The same water keeps going through a cycle. This constant movement of water is called the **water cycle**.

The Water Cycle



During the **water cycle**, water evaporates from oceans, rivers, and other water sources. When **evaporation** occurs, water turns from a liquid into a gas, or vapor.

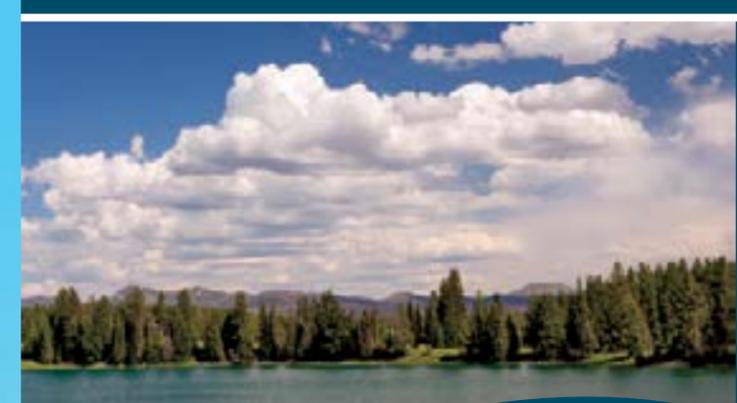
As water vapor rises, it cools into tiny water droplets. This is called **condensation**. These droplets gather together to form clouds. Gradually, clouds collect more and more water droplets.

When water droplets get too heavy, they fall from the clouds as rain, **hail**, or snow. Rain, hail, and snow are called **precipitation**. The water that falls as precipitation returns to oceans, lakes, and rivers. Year after year, water constantly moves through the water cycle.

hail frozen rain



▲ Evaporation is usually invisible. In this photo, however, it can be seen.



▲ Condensation makes clouds of all shapes and sizes.



▲ Precipitation comes in the form of rain, hail, or snow.

► Before You Continue

1. **Use Text Features** Use the diagram on page 14 to explain how clouds form.
2. **Make Connections** Think about what happens when you boil water. Compare it to the part of the **water cycle** you see in the top photo.

Plants at the Well

Plants depend on water from the well for survival, and the well depends on plants to help move water through its cycle. Without plants, the **water cycle** would be **disrupted**. Without water, plants could not survive.

In fact, plants are made up mostly of water. Water helps give plants their shape and form. Without it, they **droop**, **shrivel**, and even lose their leaves.



▲ This is an African baobab tree during the dry season.

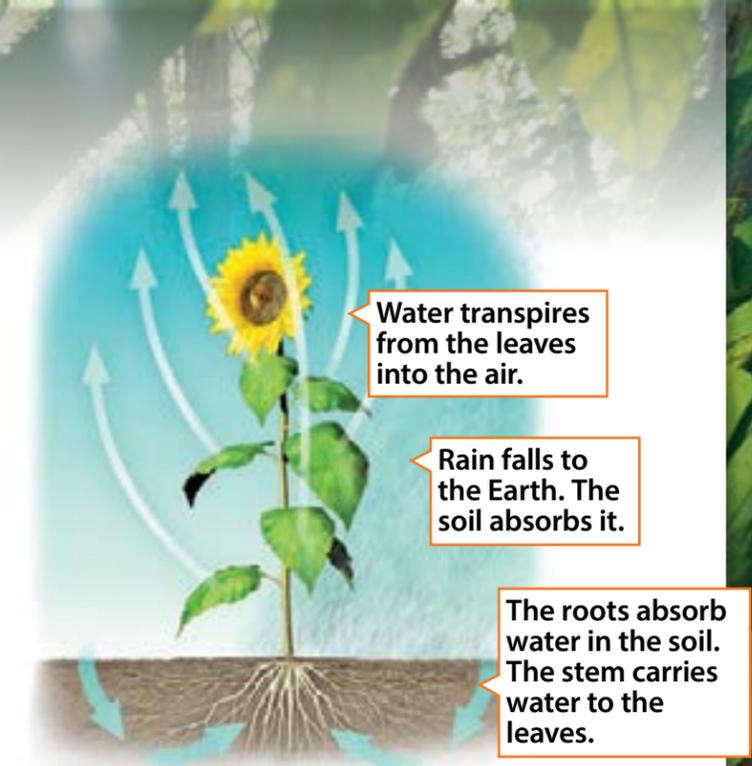


▲ This is an African baobab tree during the rainy season.



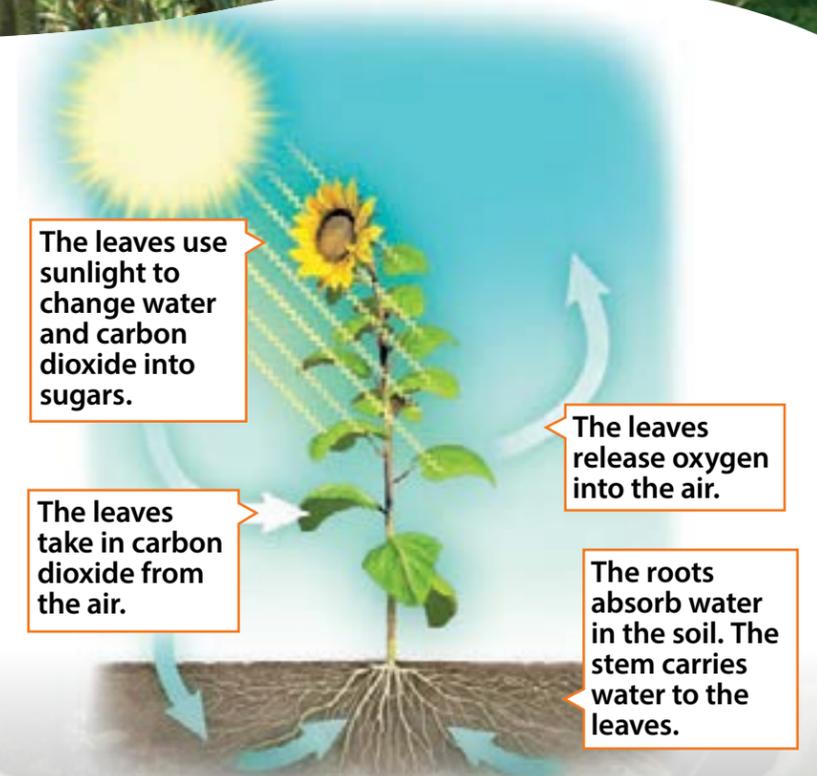
Transpiration

A plant's roots absorb water, which is carried to the stem and leaves. From the leaves, water, in the form of vapor, is **released** into the **atmosphere**. This is called transpiration.



Photosynthesis

Water also helps plants make food for themselves. Plants use the sun's energy to change water and carbon dioxide into simple sugars that feed the plant. This process is called photosynthesis.



released let go

► Before You Continue

1. **Use Text Features** Study the diagrams. Name three things a leaf does for a plant.
2. **Make Connections** What should you give to a plant that has lost its shape?



▲ When you sweat and breathe, you add water to the **atmosphere**.

Animals at the Well

Like plants, animals (including you) are mostly made of water. Humans are about 70 percent water. Think of everything it does in your body. It carries nutrients, helps **digestion**, removes waste, controls body temperature, and even cleans eyes.

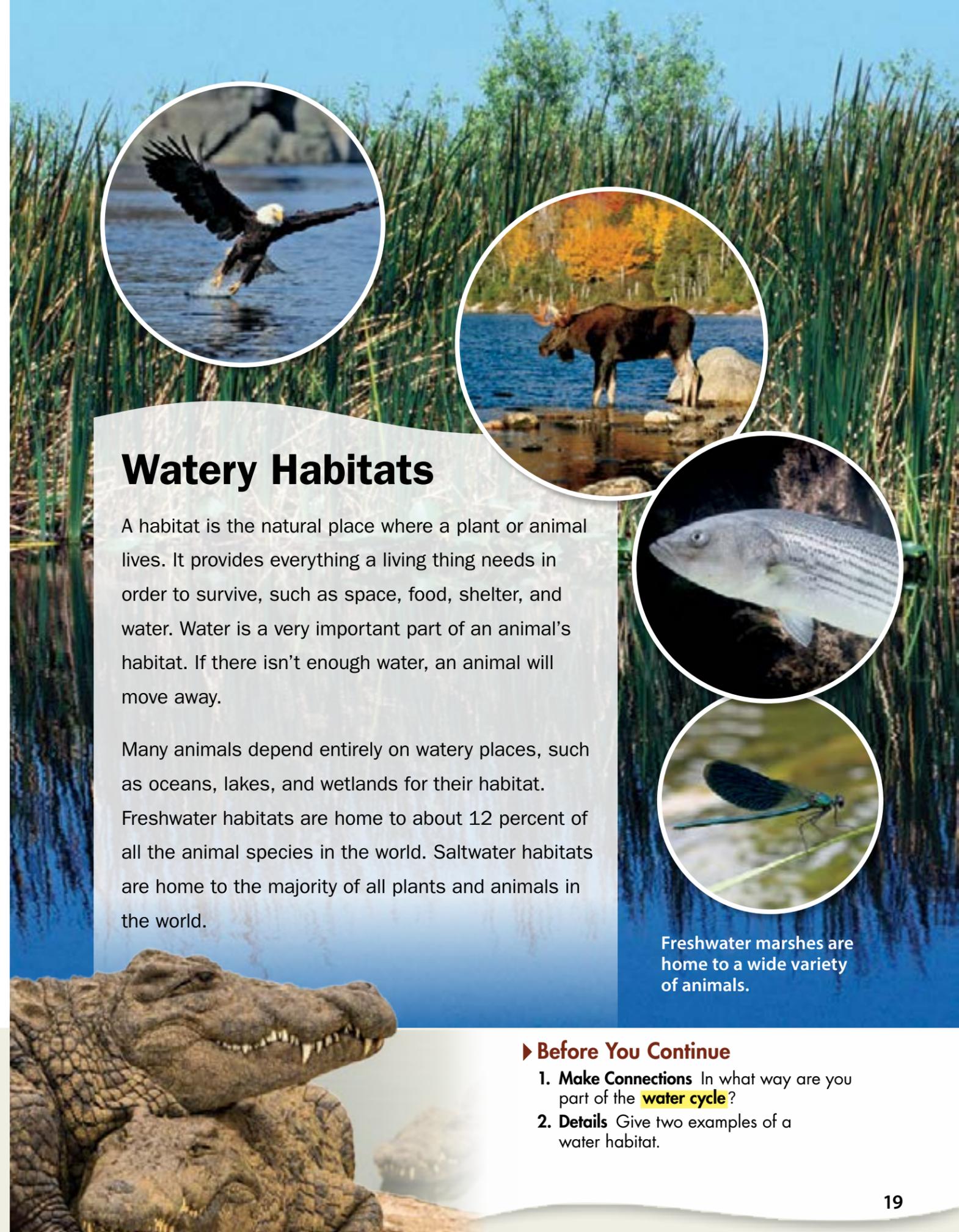
Animals need water to survive, and, like plants, they are also part of the **water cycle**. Animals add water to the **atmosphere** by breathing, sweating, and even drooling. Eventually, this water comes back to Earth. The water you brushed your teeth with today may have been the **spray of a beluga whale** ten years ago.



spray

beluga whale

digestion break down and absorb food
 ◀ **spray of a beluga whale**
 the water from a beluga whale's blowhole



Watery Habitats

A habitat is the natural place where a plant or animal lives. It provides everything a living thing needs in order to survive, such as space, food, shelter, and water. Water is a very important part of an animal's habitat. If there isn't enough water, an animal will move away.

Many animals depend entirely on watery places, such as oceans, lakes, and wetlands for their habitat. Freshwater habitats are home to about 12 percent of all the animal species in the world. Saltwater habitats are home to the majority of all plants and animals in the world.

Freshwater marshes are home to a wide variety of animals.

► Before You Continue

1. **Make Connections** In what way are you part of the **water cycle**?
2. **Details** Give two examples of a water habitat.

Fresh Water in the Well

Though we live on a watery planet, not all of that water can be used. That's because most of the water on Earth, about 97 percent, is salt water. Only 3 percent is **fresh water**. Many living things, including people, need fresh water for survival.

But most of the fresh water, over 99 percent, is not accessible to us. It is frozen in icecaps and glaciers, trapped too far underground to reach, or suspended in the **atmosphere**, so we can't use it.

While there is a lot of water on the planet, we have **access** to less than 1 percent of it.



Access to the Well

Some families are lucky. They can turn on the **tap** to get drinking water, to fill a bathtub, or to water the garden. Other families around the world are **less fortunate**.

While the amount of water on Earth is always the same, the distribution of water across the world isn't. Huge differences in rainfall can happen from country to country, and even within the same country. Less rainfall means less water is available in an area. Yet many people may live there.

Because water is not evenly distributed across the globe, nearly 20 percent of **the world's population** does not have **access** to enough water.



Worldwide Water Use

PLACE	AVERAGE DAILY WATER USE PER PERSON One bucket = 10 liters (2.6 gallons)
North America	20 buckets
Russia	15 buckets
Poland	10 buckets
India	5 buckets
Nepal	3 buckets
Haiti	2 buckets
Ethiopia	1 bucket

▲ North Americans use more water than people in other parts of the world.

tap water faucet
less fortunate not so lucky
the world's population all the people in the world

► Before You Continue

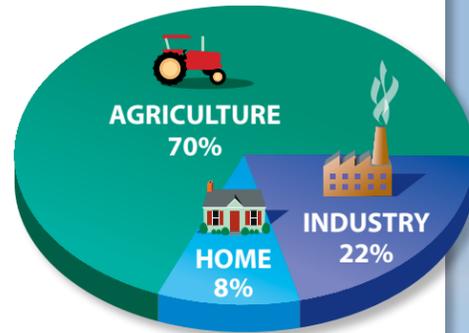
- 1. Details** What are some reasons people do not have **access** to **fresh water**?
- 2. Use Text Features** On average, how many more liters of water are used by a person in India than a person in Nepal each day?

Use of Water in the Well

We use water in our homes, in **industry**, and in agriculture. At home we use water for cleaning, cooking, drinking, flushing toilets, and for bathing. Water also helps **generate** electricity. In industry, water heats and cools things, and washes away waste. Farms use the most water. They need huge amounts for **crops** and **livestock**.

Look around. Almost everything you see was made using water. Water was used to grow and make the food you eat. Water was even used to make the paper for this book and the ink used to print the words.

How People Use Water



Crops like this one must be irrigated, or watered, in order to grow.



◀ Making paper requires water.

- industry** businesses that make things
- generate** make
- crops** plants used by people
- livestock** farm animals

- Demands on** Increasing Use of Water in
- demand** need
- accommodate** make room for
- gobble up** take over

Demands on the Well

The number of people on Earth is growing. More people means a greater **demand** for water. We need to find a balance between our demand for water and the amount of water that is available to us.

A growing population also means we need more space. As towns and cities grow to **accommodate** all these people, they **gobble up** land. This affects nearby water. Houses, buildings, and roads sometimes take the place of wetland habitats.

Pavement blocks rainwater from refilling underground water supplies. We are using more water than ever before, but all the water we have is all the water we will ever have.

Human Population Growth

YEAR	POPULATION = 1 billion people
1804	1 person icon
1927	2 person icons
1960	3 person icons
1974	4 person icons
1987	5 person icons
1999	6 person icons
2013	7 person icons
2028	8 person icons
2054	9 person icons

▲ The worldwide human population is likely to grow to 9 billion people by the year 2054.

► Before You Continue

1. **Paraphrase** In your own words, explain how people use water.
2. **Main Idea** Why is the demand for water growing?

Pollution in the Well

The **water cycle** helps keep Earth's water clean. When water evaporates, minerals and **pollutants** in the water are left behind as the water vapor rises. Plants also help keep water clean. As water travels through plants, they can remove chemicals in it.

But more and more waste from factories, farms, and homes is getting into the water. **Runoff** from backyards, city streets, and farms dumps dirt and harmful chemicals into lakes, rivers, streams, and ponds.

Pollution in the **atmosphere** from cars and factories mixes with water vapor in the air. When the water vapor forms droplets and falls as rain, it brings the pollutants back down to Earth. This can create "acid rain," which is so full of acids that it can kill the plants it falls on.

▼ Acid rain killed many of the trees in this forest.



▲ Pollution flows into the ocean from this city's inner harbor.

This tanker ship adds pollution to both the air and the water. ►



Our actions may be **overloading** the **water cycle**'s natural ability to create clean water. As more water becomes polluted, there is less clean water **available** in the world. Nearly 80 percent of all sicknesses in the developing world are caused by unsafe water.

Wildlife suffers, too. Water pollution threatens the health of many species and habitats across the planet.

Because of water's self-cleaning powers, the effects of pollution can be reduced. But we also need to reduce the amount of pollution that gets into the water in the first place.

▼ Trash pollutes this freshwater habitat.



pollutants harmful chemicals and other polluting materials

overloading harming
available that can be used

► Before You Continue

1. **Details** What details support the idea that there is pollution in the well?
2. **Make Connections** Name one example of water pollution described in the text that can be found in your town or city.

Saving the Water in the Well

Water has the power to change everything. A single splash can sprout a seed, **quench** a thirst, provide a habitat, generate energy, and **sustain life**. Water is the most basic and important need of all life on Earth.

Earth's one well is in trouble, though. There is simply not enough clean water to go around.

Taking actions to conserve water can help save the well. Conserving water means protecting both the **quantity** and quality of water on Earth. By becoming more aware of how you use water and by using less, you too can protect the water in Earth's one well.

Remember, every drop **counts!** ❖



quench satisfy
sustain life make life possible
quantity amount
counts is important

► Before You Continue

1. **Main Idea** What does the author want readers to understand?
2. **Paraphrase** In your own words, explain why water is important to all life on Earth.

Meet the Author

Rochelle Strauss



Rochelle Strauss has a challenge for you. First, she would like you to list all the ways water is a part of your life. Do you live near water? What kind? Do you play in it, or use it in a special way? How many times a day do you wash your hands? Brush your teeth? Flush the toilet?

Are you ready for the challenge? Study your list. Think of one simple thing you can do to help conserve water. Then do it. Afterward, tell five people what you did, and why. Then challenge them to do the same thing. In this way, you will be passing along your new water awareness and helping to change the world for the better.



▲ Rochelle Strauss lives in Canada.

Writing Tip

In the first paragraph of "One Well," the author asks you to imagine something new about water. This strong beginning gets your attention and gives important information about the topic. Reread the beginning of "One Well." Then write a strong beginning to a report of your own.

“I hope to inspire kids to do something, even just one simple thing, to protect Earth’s ‘one well.’”

Talk About It

1. Why is this selection called a **science feature**?

It is called a science feature because _____.

2. Explain the **water cycle** to someone who has never heard of it. Define what it is and say why it is important.

The water cycle is _____. For example, _____. It is important because _____.

3. The selection states that **fresh water** is not distributed evenly around the world. What fact supports this idea? What fact describes a **consequence** of it? Check with a partner to see if you find the same facts.

Key Words

access	fresh water
atmosphere	precipitation
condensation	runoff
consequence	shortage
conservation	water cycle
deplete	watershed
evaporation	

Main Idea and Details

Make an outline for "One Well." Write the main idea for each section. Then add details that support each main idea.

Outline

Use Roman numerals for the main idea.

I. All water on Earth is connected.

Use capital letters for details that support the main idea.

→ A. about 70% of Earth's surface is water

→ B. some water is buried deep under the ground

II. Water keeps moving through the water cycle.

A.

B.

Now use your outline to summarize each section of the selection for a partner. Tell the main idea of each section and use the details to tell more about it. Use **Key Words** in your retelling.

This section is about _____.

Write About It

What should people do to help with water **conservation**? Write a water conservation tip. Use **Key Words** to help get your points across.

Water Conservation Tip

When you _____, remember to _____.
Try to _____.
Everybody can help conserve water!

Fluency

Practice reading with phrasing. Rate your reading.

Talk Together

Why is water so important to living things? Write a poem about the importance of water. Think about the sounds that water makes as it drips, flows, and rushes through the world. Try to include those sounds as well as **Key Words** in your poem, and share the poem with the class.

Analogies

An **analogy** has two word pairs that are related in the same way. Look at these examples of analogies.

synonyms

synonyms

sea is to ocean as precipitation is to rain



antonyms

antonyms

shortage is to plenty as deplete is to replace



Often, analogies are written like this:

precipitation : rain as sea : ocean

stands for "is to"

Try It Together

Read the analogies below. Then find the word that completes each one.

1. **day : night as conservation :** _____

- A. waste
- B. rain
- C. water
- D. honesty

2. **fast : quick as result :** _____

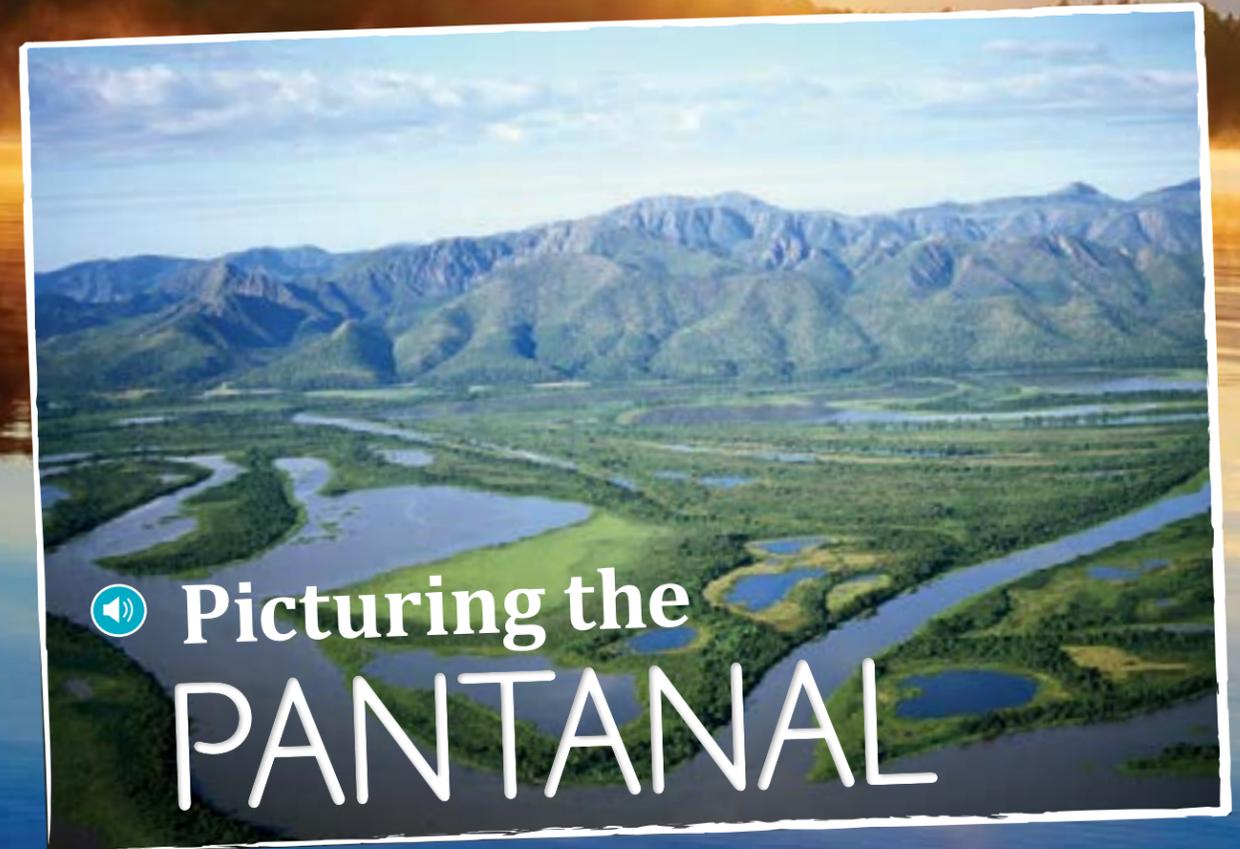
- A. pollution
- B. consequence
- C. aquifer
- D. evaporation



NATIONAL
GEOGRAPHIC
EXCLUSIVE

Making Connections Read about a scientist who is studying one of the greatest wetlands on the planet.

Genre A **science article** is nonfiction. It gives facts about a topic related to the natural world.



Picturing the PANTANAL

by Lisa Berti

Imagine a place that is ruled by the rain. From October to April, it falls almost endlessly from the sky. It flows into rivers, which become large and fast moving.

It **patters** and pours on hundreds of small lakes.

It floods across the land, creating a giant water world.



patters splashes; falls

Before You Continue

- Make Connections** Think of a time when it rained a lot. What was it like? How was it like the rain in the Pantanal?
- Figurative Language** Why does the author use the phrase "ruled by the rain?"

A Watery Wonderland

This place may sound imaginary, but it is real. Welcome to the Pantanal, the largest **pristine** tropical wetland in the world. Located in the middle of South America, it extends across the countries of Brazil, Bolivia, and Paraguay. If you want to explore the Pantanal, you'll need some very good **galoshes**. That's because this wetland is as big as the state of Florida!

The Pantanal is huge, and it is constantly changing. Every year, it fills with water from overflowing rivers. Then, slowly, much of the water dries up. This cycle of flooding and drying brings **nutrient-rich sediments** into the ecosystem. These sediments help plants grow and support a great diversity of life. Over 190 different kinds of mammals, 270 kinds of fish, and 650 kinds of birds call the Pantanal home.

These red-capped cardinals are among the many birds living in the Pantanal. ▶



▶ These caimans and this capybara are supported by plants, which form the base of the Pantanal food chains.



pristine healthy and unspoiled
galoshes rain boots
nutrient-rich sediments soil that has a lot of food for plants and animals

the field nature
convert change



◀ Satellites like this one capture the sun's radiation as it hits Earth.

Studying Water from the Skies

Are the waters of the Pantanal changing? Many scientists want to know. Because water connects all living things in the Pantanal, any changes to it have far-reaching effects. One scientist who is looking for answers is Dr. Maycira Costa. Like most scientists, Maycira goes into **the field** to collect information. However, she also studies water in a different way.

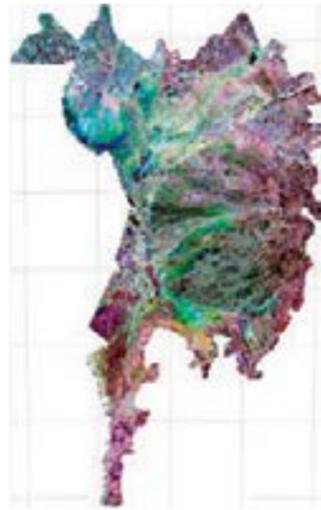
Maycira studies images taken from satellites high above Earth. The images are created by special detectors inside the satellites. The detectors sense the sun's energy as it hits Earth. They capture that energy in an image. Then scientists **convert** the information in the image into colors that human eyes can see.

▶ Before You Continue

1. **Make Connections** How might the waters of the Pantanal be changing like they are in other places you have read about?
2. **Explain** How does flooding help plants in the Pantanal?

This modified satellite image shows different water levels in the Pantanal at different times of the year. ▶

- = rising water
- = low water
- = high water



©JAXA and METI. Research was conducted under the ALOS K&C initiative project of JAXA/EORC. Mosaic created by Teresa Evans and Maycira Costa



Tracking a Changing Ecosystem

The information Maycira is gathering is important for another reason. By knowing what the wetlands are like today, she can watch for changes over time. She can see how changes in climate, or average weather over time, affect the Pantanal. In addition, her work will help answer questions about how changes in the pattern and amount of floodwater affect the plants, animals, and people that call the Pantanal home.



▲ Dr. Maycira Costa's work helps people understand what the Pantanal is, and why it is important.

Through her work, Maycira is giving people a big “picture” of the Pantanal. She is showing how the area is, in fact, a single, interconnected ecosystem—one that is **worth protecting**. ❖



Science Through Satellite Images

Studying satellite images shows Maycira many things. Different colors show her how large the flooded areas are. They also show where **the vegetation is**, and how much sediment is in the water. In addition, the images can give Maycira an idea of how much light is penetrating, or going down into the water.

The baseline, or basic information Maycira gathers in her work, is important. She and others can use it to compare unspoiled parts of the Pantanal with parts that are influenced by human activities, such as building **dams**, farming, logging, and mining. This way, she can see how changes in the water affect the plants, animals, and people who depend on it.



▲ This collared anteater is one of over 190 different mammals that live in the Pantanal.



modified satellite image satellite image that has been adjusted to lay across a flat surface

the vegetation is plants are

◀ **dams** walls to contain water

worth protecting valuable and deserves to be saved

▶ Before You Continue

1. **Main Idea** Why is it important for Maycira to gather basic information about the Pantanal?
2. **Author's Purpose** What was the author's purpose in writing about Maycira's work?

Compare Texts

Look back at “Picturing the Pantanal” and “One Well.” How are the two selections alike? How are they different? As you compare the two pieces, think about their genres, topics, main ideas, and text features.

Comparison Chart

	“Picturing the Pantanal”	“One Well”
Genre		
Topic		
Main Idea	Through photos, Dr. Maycira Costa studies the Pantanal and learns how life there is affected by changes to the area.	
Text Features	Photos: Yes Tables: Diagrams:	Photos: Yes Tables: Diagrams:

Key Words

access	fresh water
atmosphere	precipitation
condensation	runoff
consequence	shortage
conservation	water cycle
deplete	watershed
evaporation	

Grammar and Spelling

Adjectives

Adjectives describe, or tell about, nouns.

tiny drop



Grammar Rules Adjectives

- Use a **capital letter** for adjectives that describe a country of origin. African baobab tree
- Add **-er** to the adjective when you compare two things. A lake is **deeper** than a pond.
- Add **-est** to the adjective when you compare three or more things. Crater Lake is the **deepest** lake in the United States.
- Some adjectives have special forms for comparing things. These include **good, better, best**. When you are thirsty, a sip of water is **good**. A cup of water is **better**. A whole bottle of water is **best**!

Read for Adjectives

Read this passage based on “One Well.” What adjectives can you find?

Huge differences in rainfall happen around the world. People in places that get the smallest amounts of rain can suffer. An Ethiopian person, for example, might have access to only 10 liters of water a day.

Write Adjectives

Think about three ways you can save water. Write three sentences using *good*, *better*, and *best* to describe your ideas. Compare your sentences with a partner’s.

Talk Together

Think about the demands on water in today’s world. Why does this make water **conservation** so important? Use **Key Words** to talk about your ideas.

Clarify

Listen to Bobby's dialogue with his father. Then use **Language Frames** to tell a partner why you think it is important to conserve water.

Language Frames

- What does _____ mean?
- _____ means _____.
- For example, _____.

Water in Our Lives

Dialogue

Dad: Another day without rain! The aquifer is shrinking. That's a big problem for us.

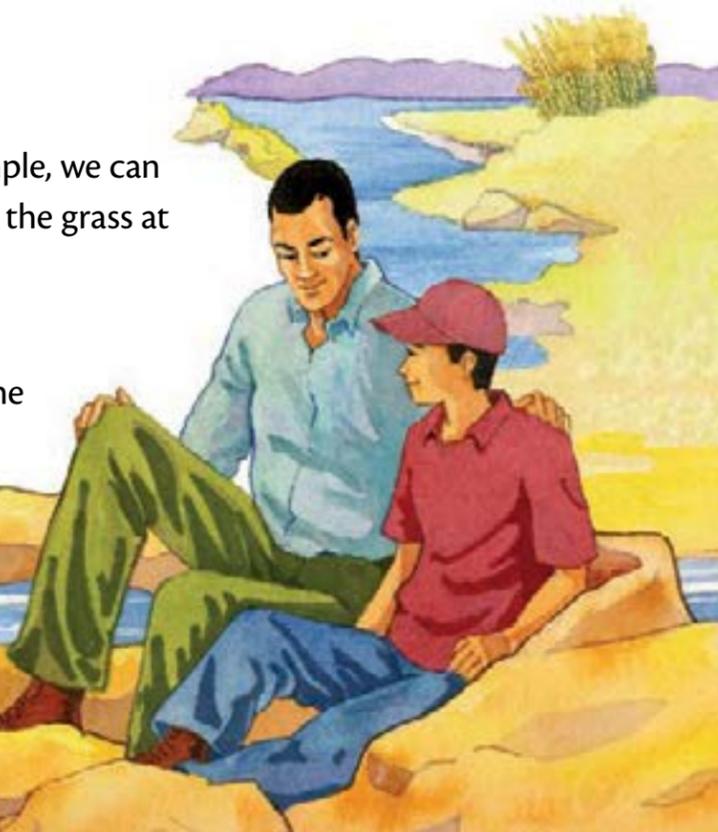
Bobby: What does *aquifer* mean? Why is it a problem if it shrinks?

Dad: The aquifer is our underground water supply. If the aquifer shrinks, it means there won't be enough water for the pond, our wells—even this stream.

Bobby: What should we do?

Dad: We need to use less water. For example, we can wash the car on the lawn and water the grass at the same time.

Bobby: I can do that. And I think we should talk to our neighbors about doing the same thing!



Science Vocabulary

Key Words

Look at the pictures. Use **Key Words** and other words to talk about how people around the world get and store water.

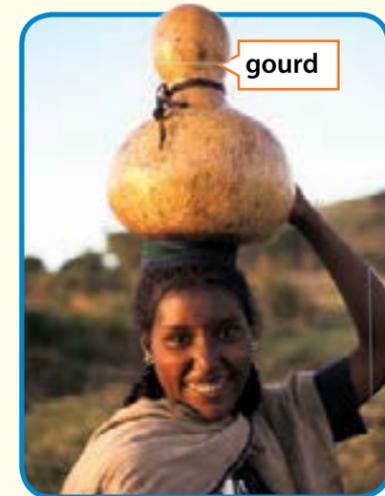
Key Words

aquifer
canal
channel
climate
course
gourd
region

Storing Water



In some **regions**, people get their water from **aquifers** under the ground.



In dry, hot **climates**, some people might collect and store water in a **gourd**.

Moving Water



People sometimes build **canals** that **channel** water from a distant lake to a place where people live.



The natural **course** of a river carries water toward the ocean.

Talk Together

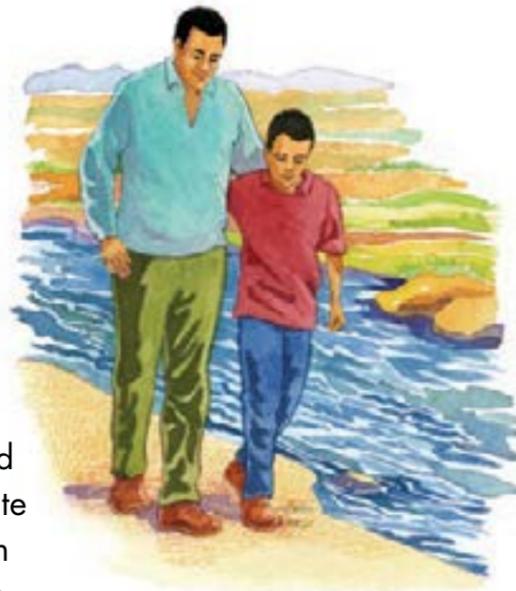
What do people in a region do when water is scarce? In a group, use **Language Frames** from page 38 and **Key Words** to discuss this question.

Character

A **character** is a person, animal, or imaginary being in a story. When you talk about characters, think about the

- role a character plays in the story.
- function of the character, or what he or she does.
- relationships between characters.

Look at the picture of Bobby with his dad. Think about the relationship that Bobby and his dad share.



Map and Talk

You can use a chart to share information about Bobby and his dad. First, write the names of the characters. Next, write the characters' roles. Then, write the main function of each character. Finally, describe their relationship to each other.

Character Chart

Character	Role	Function	Relationship
Bobby	son	listens has ideas	loving learns from father
Bobby's dad	father	teaches sets an example	loving teaches son

Talk Together

Talk with a partner about the characters in a story you have read. Your partner can make a chart to explore the characters' roles, functions, and relationships.

Academic Vocabulary

More Key Words

Use these words to talk about "My Great-Grandmother's Gourd" and "The Frog That Swallowed All the Water."

acquire

verb



When you **acquire** something, it becomes yours. She **acquired** a shirt from her mom.

availability

noun



Availability means having access. The **availability** of books inspired him to read.

capacity

noun



Capacity is how much something can hold. This bucket has a **capacity** of three gallons of water.

distribution

noun



Distribution is the way something is divided. This shows an equal **distribution** of pizza.

scarcity

noun



If there is a **scarcity** of something, there is not enough of it. There's a **scarcity** of water here.

Talk Together

Make a Word Map for each **Key Word**. Then compare your maps with a partner's.

Definition:
too little of something

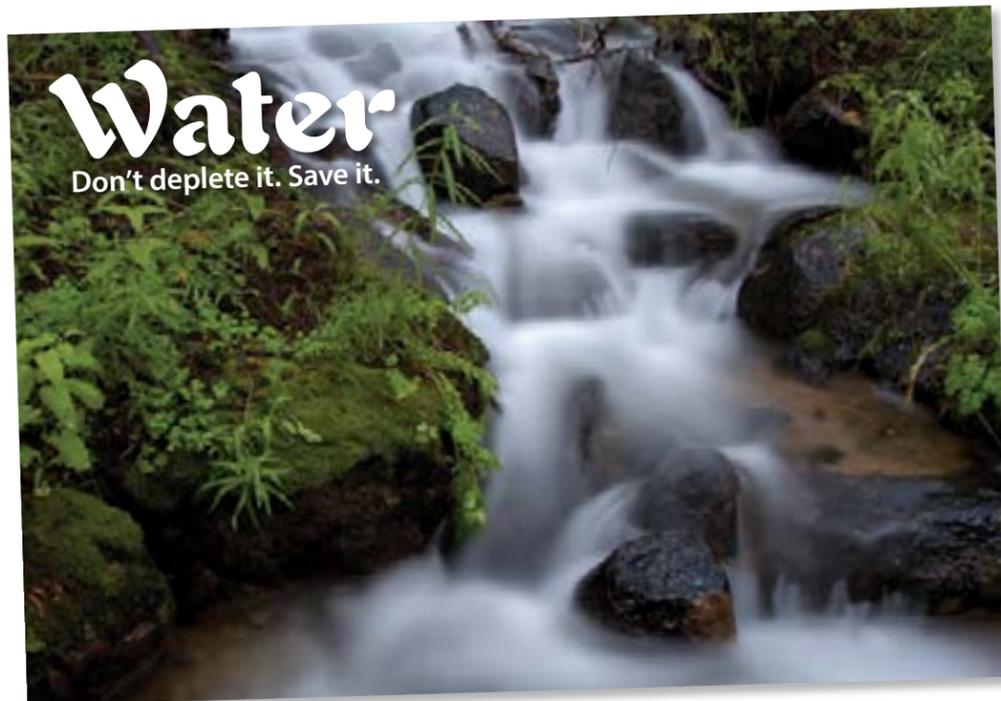
Example:
The birds had a scarcity of food.

scarcity

Characteristics:
limited, small, missing

Learn to Make Connections

Look at the poster. Does it remind you of something you've seen or read? You can **make connections** to something you've read before to understand something new.



When you read, think about how the story **connects** to something you've read before.

How to Make Connections



1. Think about what the text is about.

The topic is _____.



2. As you read, think about other texts that relate.

_____ reminds me of _____.



3. Decide how the connection helps you understand the text.

Now I understand _____.

Language Frames



The topic is _____.



_____ reminds me of _____.



Now I understand _____.

Talk Together

Read Bobby's report. Read the sample. Then use **Language Frames** to tell a partner about the connections you made.

Report

Bringing Water Home

There are many places in the world with a **scarcity** of water. Some groups are working to help people **acquire** the water they need. One great project took place in the village of Cotzol, in Guatemala. There are about 500 people living there. The nearest water was a spring five miles away. The project workers had to figure out how the villagers could get access to that water.

Workers built a large tank to hold the spring water. The tank had a **capacity** of 4,900 liters (about 1,300 gallons). Then they set up pipes to carry the water to the village. The pipes had to be almost five miles long!

The workers still had one more problem to solve. They had to make **distribution** of the water easier. They installed many faucets to help distribute the water to villagers. When the water finally flowed into people's homes, it was the first time for everyone. Now there is water **availability** all through the village.

"The topic is water scarcity.

Water five miles away reminds me of a story I read. Settlers carried water from a river.

Now I understand why we need water nearby."

◀ = a good place to stop and make a connection

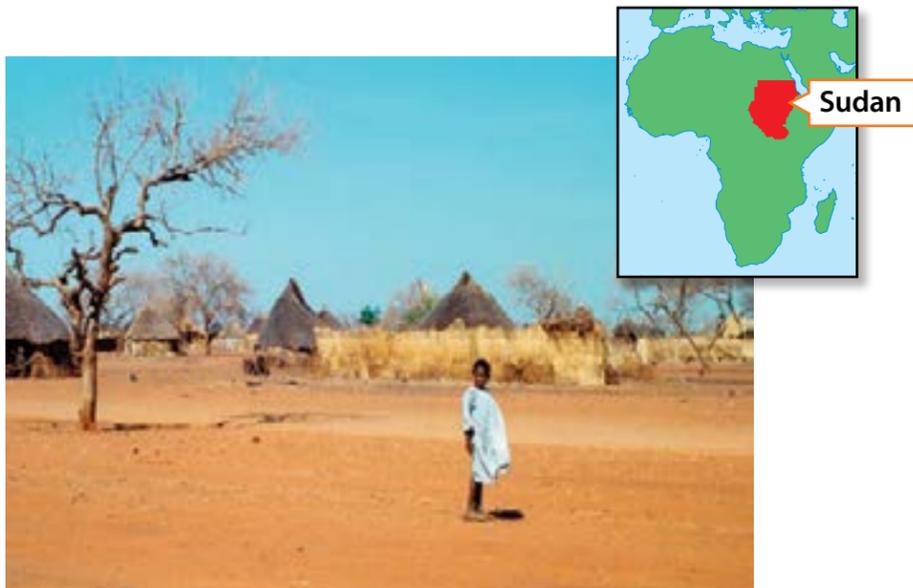
Read a Story

Genre

Realistic fiction is a story that sounds as if it could be true. The characters, plot, and setting all seem real.

Setting

The setting of a story is *where* and *when* it takes place. This story takes place today, in a village in the country of Sudan, in eastern North Africa.



▲ This boy lives in a region of Sudan that has a long dry season.

My Great-Grandmother's Gourd

by **Cristina Kessler**
illustrated by **Walter Lyon Krudop**



► **Set a Purpose**

Find out how a new machine changes life in a village.

I'll always remember the first day the blue pump worked. The men in their **turbans** and the women in their **towbs** laughed and chattered as the bright, shining pump was **fixed** on top of the old well.

“Imagine,” said Ibrahim, the village chief, “no more camels pulling water for drinking and washing and cooking. No more filling of the old trees to get us through the dry season. Progress has come to our village.”

Ahmed, the barber, called out, “Who shall take the first pump of this fancy new machine?”

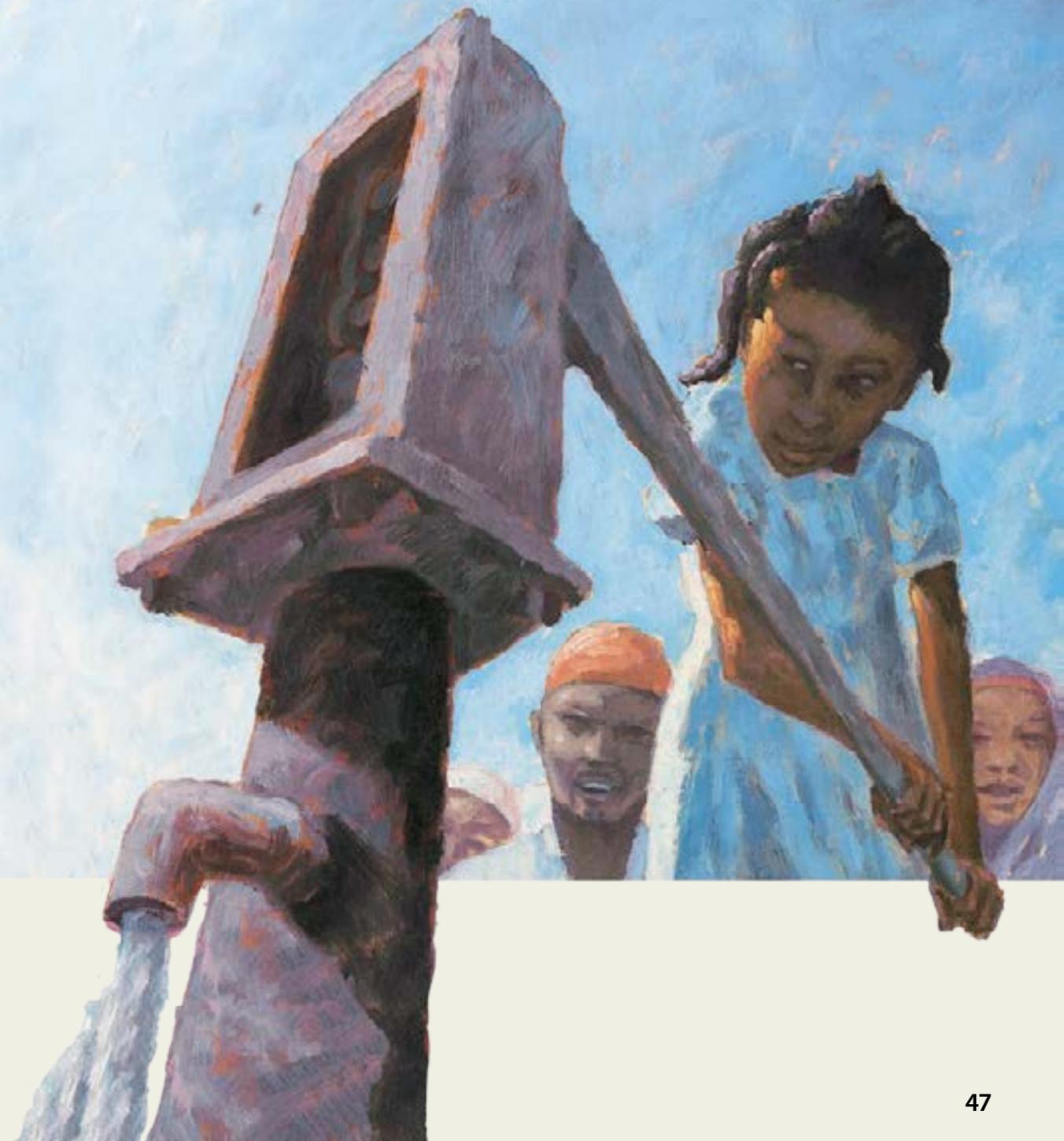
Silence filled the air until Hanan, the neighbor, said, “Let it be a child, to show just how easy it will be. Fatima, you pump and we will watch the water flow. **Inshallah.**”

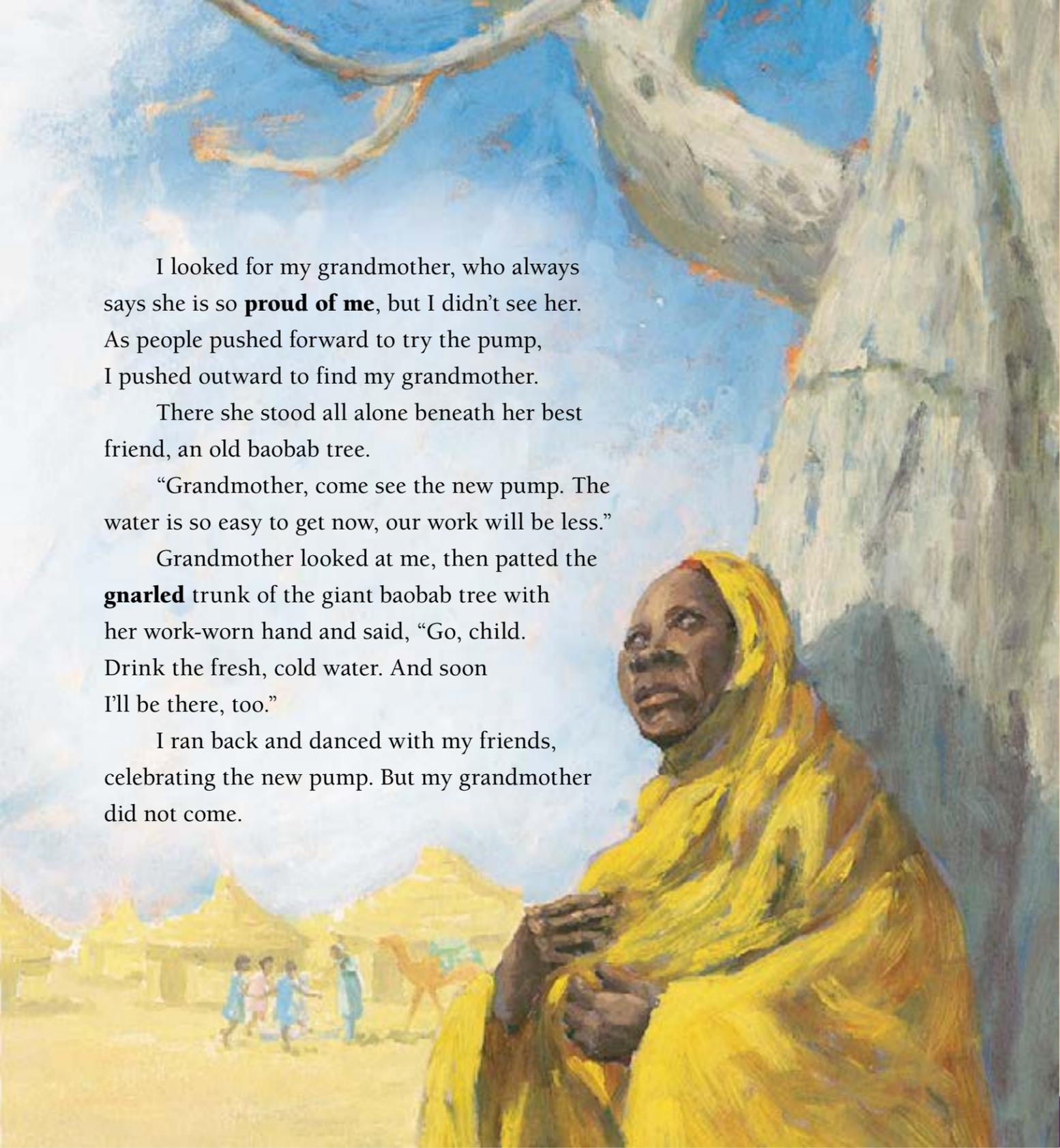


- ◀ **turbans** cloth hats
- towbs** long, colorful clothing (in Arabic)
- fixed** set in place
- Inshallah** God or Allah willing (in Arabic)

I stepped to the long handle and pulled down. A soft creaking noise filled the silence. But not a drop fell.

I pulled again, and a second soft *creeeek* was surrounded by stillness, something rare in our village. Out gushed a stream of clear water. A sudden cheer filled the air and drums began beating. Was it for me or the water? I wondered.





I looked for my grandmother, who always says she is so **proud of me**, but I didn't see her. As people pushed forward to try the pump, I pushed outward to find my grandmother.

There she stood all alone beneath her best friend, an old baobab tree.

"Grandmother, come see the new pump. The water is so easy to get now, our work will be less."

Grandmother looked at me, then patted the **gnarled** trunk of the giant baobab tree with her work-worn hand and said, "Go, child. Drink the fresh, cold water. And soon I'll be there, too."

I ran back and danced with my friends, celebrating the new pump. But my grandmother did not come.

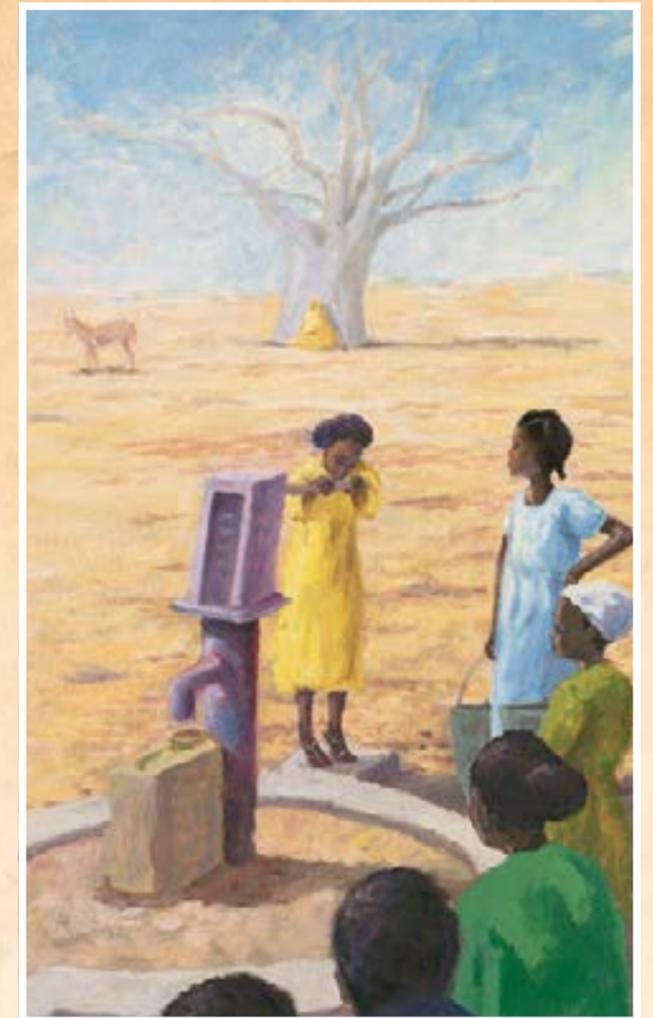
proud of me happy about what I do
gnarled twisted

Every morning, I raced the girls of the village to the pump. The first one there got to pull down the long, **shimmering** handle for as long as she wanted, filling buckets and tins, head pans and **gourds**.

My grandmother spent more and more time with her friend the baobab. Leaning against its great trunk. Resting beneath its wide-reaching shadow. Watching and waiting for what, I didn't know.

Early one evening, after the food had been eaten and the sun's heat was only a whisper on my skin, I joined my grandmother beneath the tree.

shimmering shining



► Before You Continue

1. **Explain** What did the villagers do to get water before they had the pump?
2. **Make Connections** Think about the water sources described in "One Well." What water source is Fatima accessing?

► **Predict**

Will Grandmother finally go to the new pump?

Grandmother took my hand and placed it on the ancient bark. She didn't say a word, but her sadness was loud.

"Tell me, Grandmother, what makes you so sad?" I asked as I looked deep into her eyes. "Is it the pump? Don't you like it?"

With tired eyes she looked at me and said, "The rains are nearly here, and still no one works to prepare the trees. All the years of my life, drumbeats would fill the village, and voices would sing and chant as we all worked together. But now there's only the ***creak, creak of metal.***"

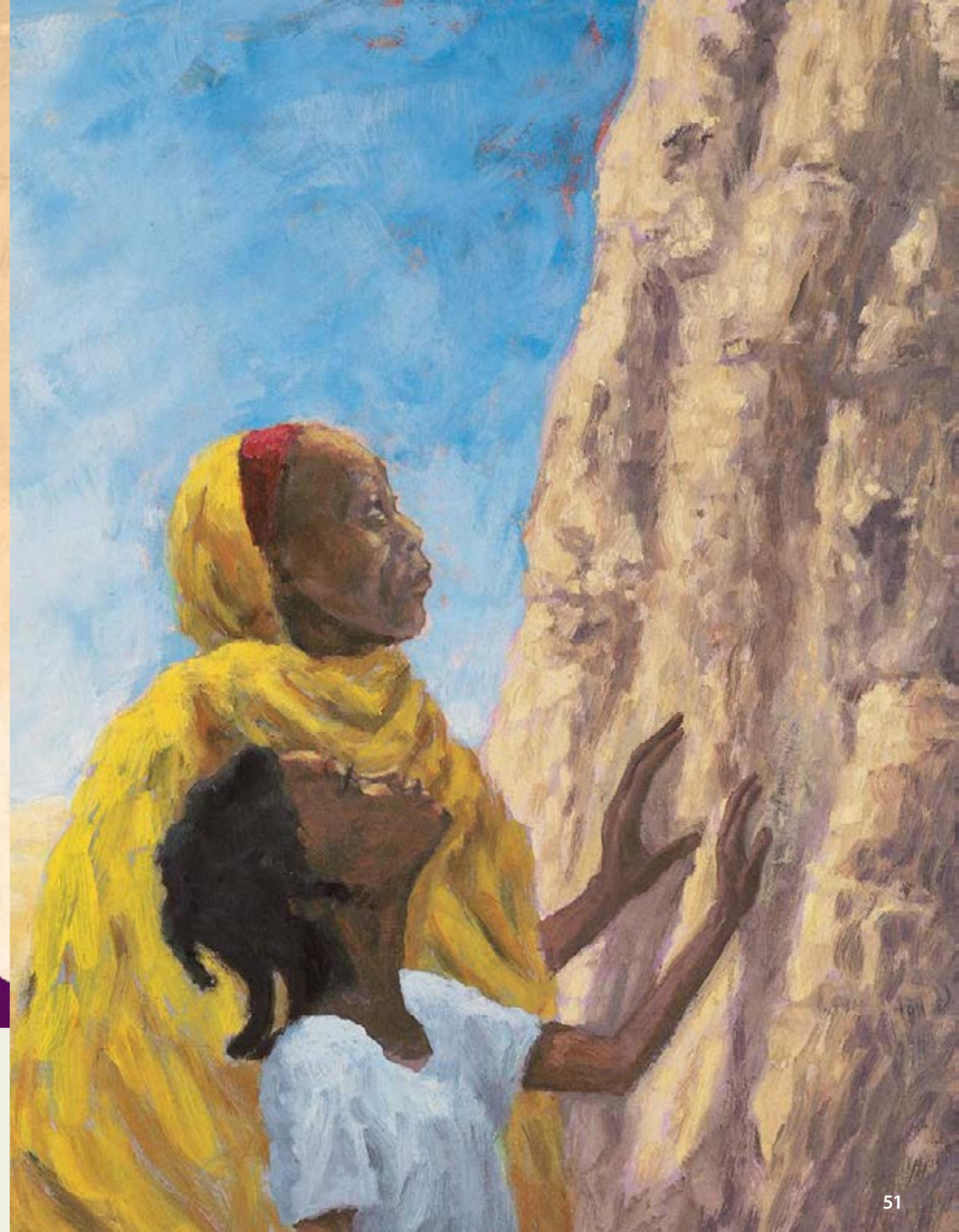
Gently patting the trunk, she said, "I always called this my great-grandmother's **gourd**. The name my grandmother called it. And her grandmother before her."

I smoothed the *towb* around her wrinkled face and said, "But, Grandmother, with the pump we don't need the trees. The days of **storing** water in trees are past."

She let go of my hand.

"Grandmother," I said, "that was then and this is now."

creak, creak of metal sound of the pump
storing keeping; setting aside





I couldn't sleep that night, so I sat outside. I was thinking about my stubborn grandmother, when, silent as a shadow, she sat down beside me.

I **gazed upon** our family's only baobab and let my eyes wander up to the scrawny branches. Each branch looked small and separate in the light of the moon.

As if she **read my mind**, Grandmother said softly, "She gives us shade in the day. Shelter in the rain. And water in the dry season. She is the tree of life."

"No, Grandmother, the baobab will give us shade in the day and shelter in the rain. **Khalas**. And the pump will give us water in the dry season."

Shaking her head, she said, "Good-night, Granddaughter," and walked back to our hut.

I rose that next day with the first rays of the sun. Dressing quickly, I rushed to the well to pump away all the questions that my old-fashioned grandmother **stirred in me**.

I was first and I pumped till my shoulders ached. *Creak, creak* sang the pump.

gazed upon looked at
read my mind knew what I was thinking
Khalas That is all (in Arabic)
stirred in me made me think about

► Before You Continue

1. **Character** Why does Grandmother stay away from the new pump?
2. **Figurative Language** Why do you think Grandmother's family called the baobab tree a **gourd**?

► **Predict**

Will Grandmother and Fatima find something to agree about?

The hut was empty when I returned. I looked toward our field to find Grandmother. Instead, I saw her bent over her hoe at the **base** of her baobab tree.

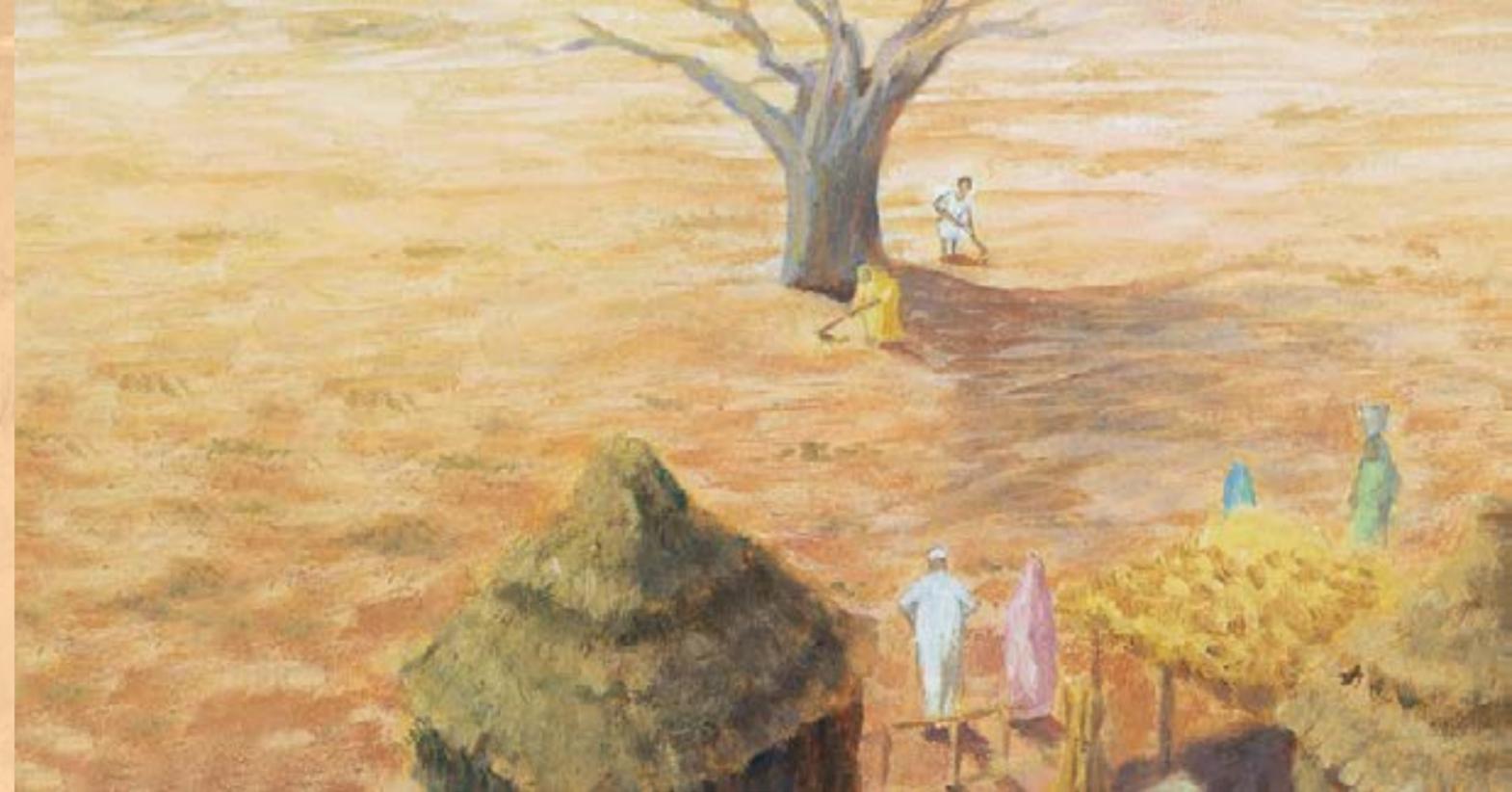
I ran to her and shouted, “Grandmother, people will laugh at you, preparing your tree.”

She stood straight and said to me in a voice as hard as the dry earth, “Some may laugh. What do I care? I have work to do.”

She worked in silence. *Creak, creak* sang the pump. *Hack, hack* went my grandmother’s hoe.

“Can I help?” I asked.

“No,” she said. She wiped the sweat dripping from her **brow** and bent back to her work.



One day, Ahmed, the **barber**, passed our tree and shouted with a laugh, “For some people new ideas are like puddles on the clay: they never **sink in**.”

But Grandmother kept right on working. She was slowly digging out what looked like a large necklace around the base of the baobab’s trunk.

Another day, Nagla, the neighbor who never stops talking, passed. She said loudly, “Who but a fool makes extra work?” Then she laughed. And I realized she was laughing at my grandmother. Old-fashioned or not, *my* grandmother.

I grabbed my hoe and ran to the tree. Without a word, I started digging beside my grandmother.

base bottom
brow forehead

barber a person who cuts men’s hair
sink in are accepted

For days we dug, deepening the circle around the trunk. In peaceful silence, we shared the work of my grandmother's great-grandmother.

People passed us, but now no one said a word. We **worked on**.

Creak, creak went the blue pump.

One day, as the sun **dipped below the earth's edge**, Grandmother put away her hoe. "Now," she said, "we must wait for the rains."

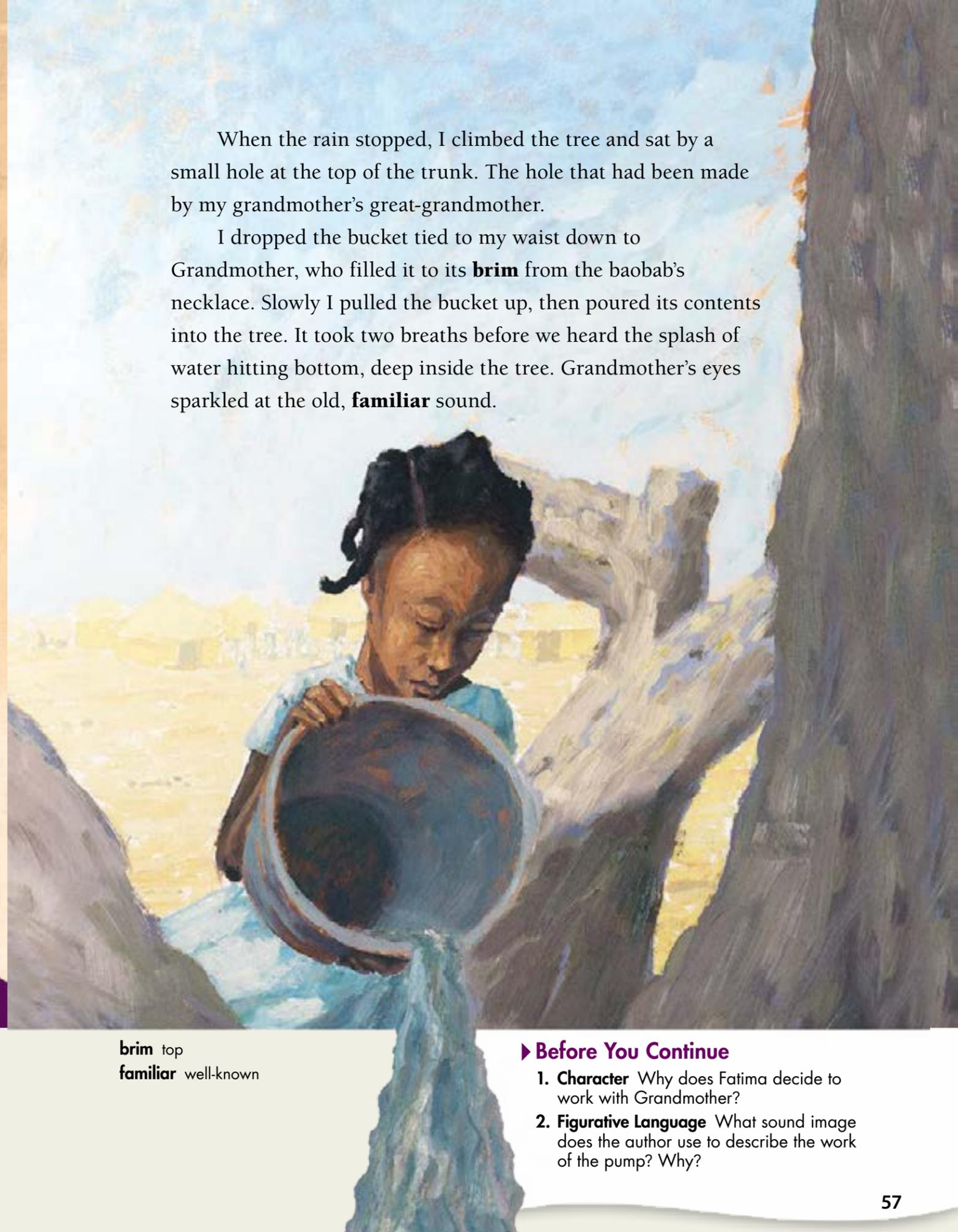
The first rain comes as **fiercely** as the first winds of the **haboob**. Grandmother and I stood in it, feeling the water dripping down our faces. We watched our necklace around the giant, old tree's trunk slowly fill with water.



worked on continued working
dipped below the earth's edge went down
fiercely strongly
haboob windy season (in Arabic)

When the rain stopped, I climbed the tree and sat by a small hole at the top of the trunk. The hole that had been made by my grandmother's great-grandmother.

I dropped the bucket tied to my waist down to Grandmother, who filled it to its **brim** from the baobab's necklace. Slowly I pulled the bucket up, then poured its contents into the tree. It took two breaths before we heard the splash of water hitting bottom, deep inside the tree. Grandmother's eyes sparkled at the old, **familiar** sound.



brim top
familiar well-known

► Before You Continue

- 1. Character** Why does Fatima decide to work with Grandmother?
- 2. Figurative Language** What sound image does the author use to describe the work of the pump? Why?

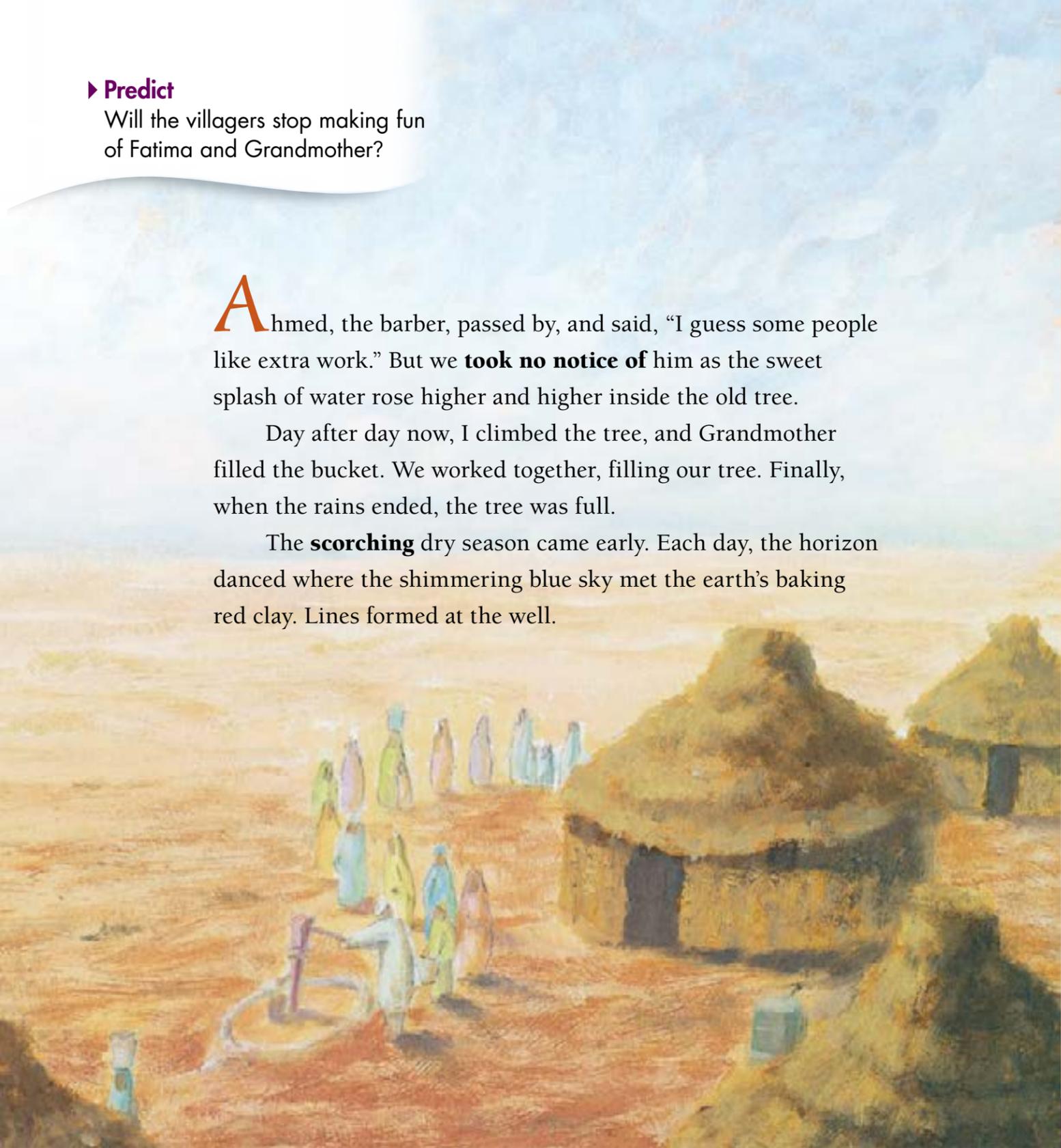
► **Predict**

Will the villagers stop making fun of Fatima and Grandmother?

Ahmed, the barber, passed by, and said, “I guess some people like extra work.” But we **took no notice of** him as the sweet splash of water rose higher and higher inside the old tree.

Day after day now, I climbed the tree, and Grandmother filled the bucket. We worked together, filling our tree. Finally, when the rains ended, the tree was full.

The **scorching** dry season came early. Each day, the horizon danced where the shimmering blue sky met the earth’s baking red clay. Lines formed at the well.



took no notice of did not pay attention to
scorching hot

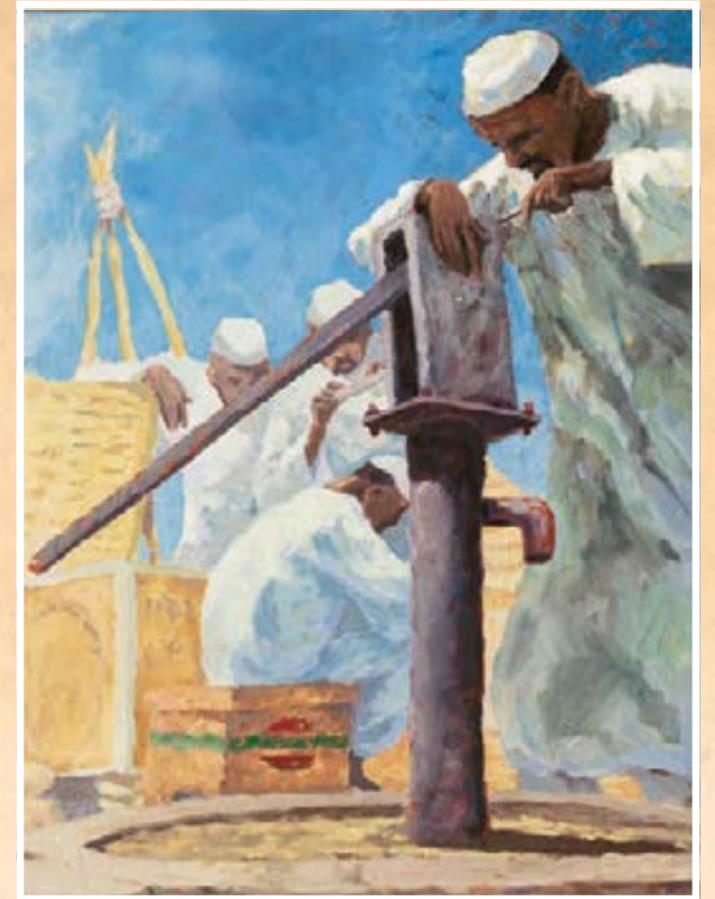
From the first rays of light till the sun slipped away, people pumped. The steady *creek, creek* turned to *screech! screech!*

And then one day, the pump stopped.

“We will fix it,” said the chief, Ibrahim. Omar, the baker, and Musa, the butcher, brought out tools. People stood about in silence.

Musa pulled a large metal piece, sharp along one edge, from the pump’s neck. “It has broken **clean**, from too much use. **Malesh**. I don’t know what we shall do, for I have no **spare** part like this.”

“I will make another piece,” said Boubacar, the cart builder. “But it will take some days.”



clean completely
Malesh Sorry (in Arabic)
spare extra

“How can we wait days?” cried Nagla. “What shall we do without water?”

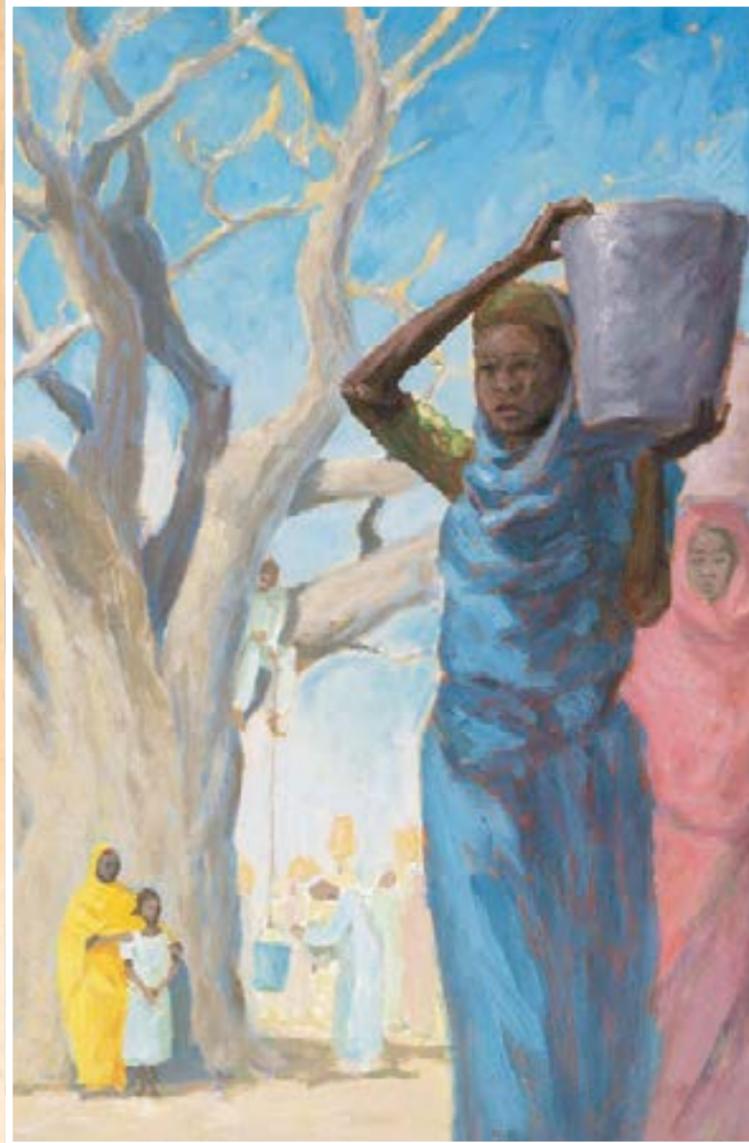
“We go back to the old ways,” said Ahmed. “We shall use the camels to pull the water out of the well.” Then he looked straight at my grandmother and told Nagla, “And two smart villagers can use their tree.”

“This year we will share our tree,” said Grandmother, “Maybe it’s **wise** to mix old with new.”

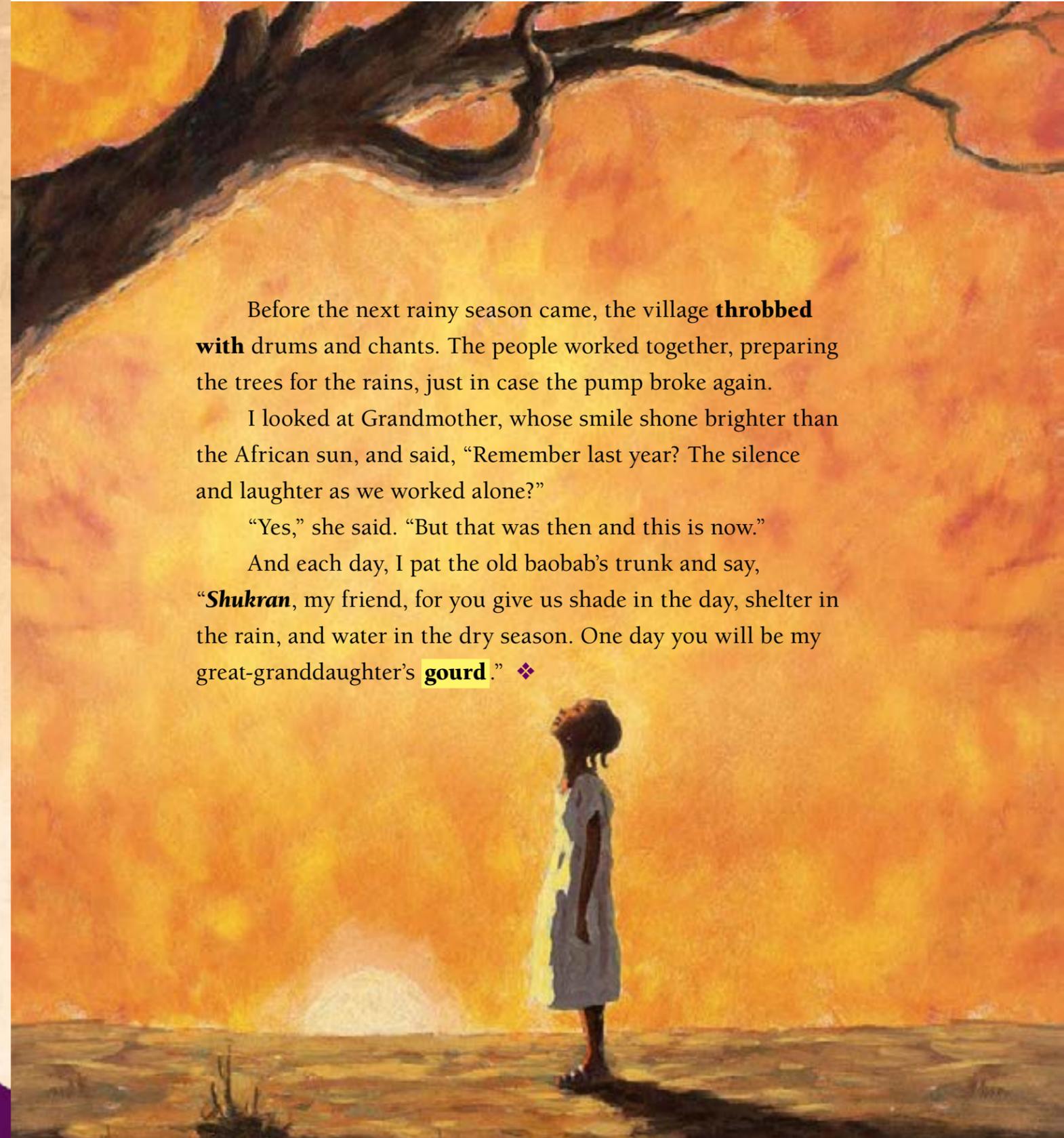
Ahmed looked at her a moment, then **nodded**.

His son, Abu Bakar, called to his friends Ali, Salah, and Osman, “Get the buckets. We’ll go to the tree.”

With great **pride** I said, “Yes! To my great-grandmother’s **gourd**.”



wise smart
nodded moved his head to say yes
pride happiness and satisfaction



Before the next rainy season came, the village **throbbled with** drums and chants. The people worked together, preparing the trees for the rains, just in case the pump broke again.

I looked at Grandmother, whose smile shone brighter than the African sun, and said, “Remember last year? The silence and laughter as we worked alone?”

“Yes,” she said. “But that was then and this is now.”

And each day, I pat the old baobab’s trunk and say, “**Shukran**, my friend, for you give us shade in the day, shelter in the rain, and water in the dry season. One day you will be my great-granddaughter’s **gourd**.” ❖

throbbled with was full of the sounds of
Shukran Thank you (in Arabic)

► Before You Continue

1. **Character** How have the villagers changed?
2. **Make Connections** How does the **climate** affect the events in the last part of the story?

Talk About It

1. What seems **realistic** about "My Great-Grandmother's Gourd?" Give at least two examples.

The story seems realistic because _____.

2. What does having the pump mean to the people who live in Fatima's village? Use **Language Frames** to **clarify** your answer.

_____ means _____. For example, _____.

3. How did Fatima's relationship with her grandmother change by the end of the story?

At first, Fatima thought her grandmother was old-fashioned. But later, Fatima _____.

Write About It

The selection uses pictures and words to describe the old baobab tree. Write a poem to describe it. Use **Key Words** and metaphors in your poem. You might start your poem like this.

Oh, beautiful baobab tree, you are
the best water gourd.
Your trunk is the face of a
wrinkled, wise woman.

Key Words

acquire	climate
aquifer	course
availability	distribution
canal	gourd
capacity	region
channel	scarcity

Reread and Retell

Character

Use the chart to keep track of each character's role, function, and relationship in "My Great-Grandmother's Gourd."

Character	Role	Function	Relationship
Grandmother	grandmother		
Fatima			

Write the character's role here.

Write the character's function here.

Describe the character's relationship here.

Now use your chart as you retell the selection to a partner. Tell who the characters are, what their roles and functions are in the story, and what their relationship is. Use **Key Words** in your retelling.

Fatima's role is _____.
Her function is _____.
Her relationship with
_____ is _____.

Fluency

Practice reading with expression. Rate your reading.

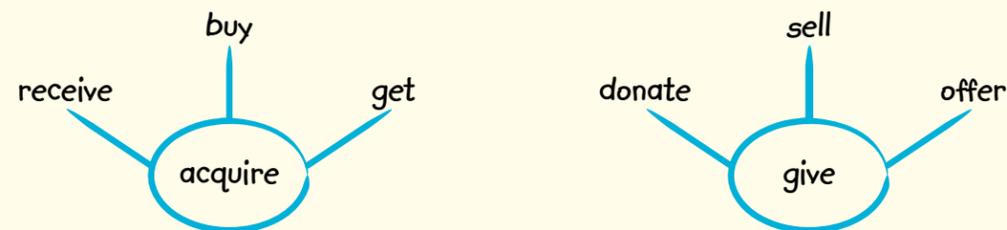
Talk Together

Why does Grandmother think that collecting water is so important? Write a song about the importance of water. Use **Key Words** in your song, and share the song with the class.

Relate Words

Synonyms are words that have nearly the same meaning. **Antonyms** are words that have opposite meanings.

Look at the word webs for the antonyms *acquire* and *give*. Notice the synonyms for each word. Think about how the synonyms for *acquire* **relate** to the synonyms for *give*.



Knowing how words relate can help you choose the right word when you speak or write. They can help you with analogies, too. Look at these analogies. They are based on the words above.

acquire : give as receive : donate

get : offer as buy : sell

Try It Together

Read the analogies below. Then find the word that completes each one. Use a word web to help you.

1. many : plenty as scarcity : _____

- A. acquire
- B. water
- C. pump
- D. shortage

2. wet : dry as flood : _____

- A. gourd
- B. drought
- C. rain
- D. capacity

The Frog

That Swallowed All the Water

An Australian Aboriginal legend
retold by Penelope McKimm



Making Connections You read about how an African girl saved water for her village. Now read about a group of animals that work together to save their water from a selfish frog.

Genre Some of the most popular origin myths, or stories of how things came to be, are legends. A **legend** is a traditional tale about characters who bring about amazing events.

“The Red Center” of Australia, one of the driest places in the world, gets its name from its dark red sand that seems to **glow** under the sun. It has rivers and lakes that are dry for most of the year, filling with water for only a few weeks or months. Here, the animals and plants have **developed** many different ways to survive without water. This story, told by Australia’s indigenous people, talks about the importance of water to all life and how animals use their unique characteristics in their efforts to protect it.

glow shine with its own light
developed used

Before You Continue

1. **Main Idea** Why is water so important for animals in the center of Australia?
2. **Make Connections** How do you think this legend might be different from realistic fiction?

► **Set a Purpose**

Find out how the enormous frog makes water disappear.

In the dry, red center of Australia lived an enormous frog called Tiddalik. He was so big, he towered over the tallest trees. When he hopped, the ground shook beneath his feet. When he croaked, he made a noise like thunder.

One day, Tiddalik awoke from his long sleep and felt a terrible, **parching** thirst. Slowly, he pulled himself out of his hole at the side of a cool **billabong**. He bent down to drink the water, and in three noisy gulps, the water was gone! All that **remained** was a dry hollow covered in dying lily leaves.

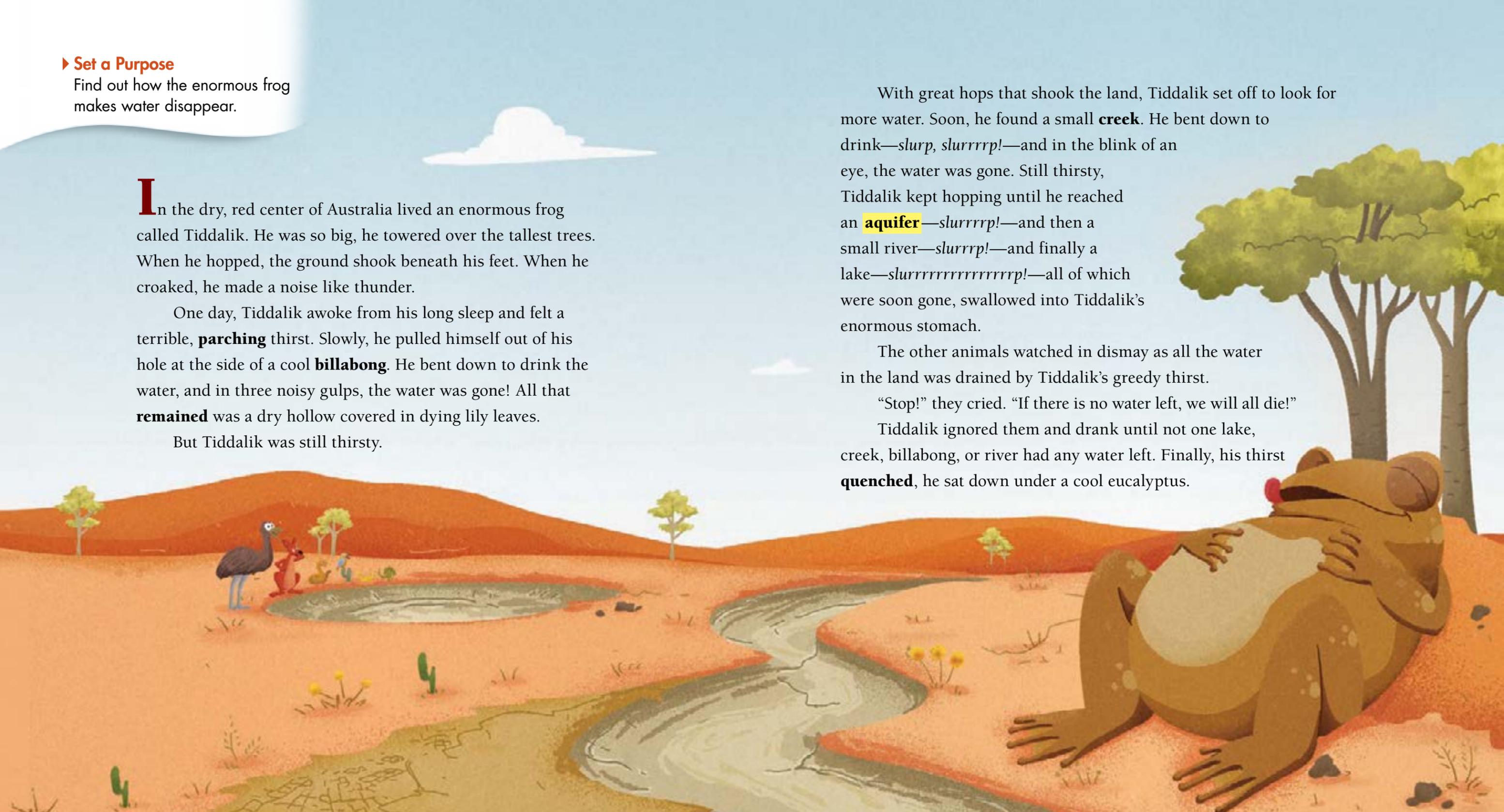
But Tiddalik was still thirsty.

With great hops that shook the land, Tiddalik set off to look for more water. Soon, he found a small **creek**. He bent down to drink—*slurp, slurrrrp!*—and in the blink of an eye, the water was gone. Still thirsty, Tiddalik kept hopping until he reached an **aquifer**—*slurrrrp!*—and then a small river—*slurrrrp!*—and finally a lake—*slurrrrrrrrrrrrrrrrp!*—all of which were soon gone, swallowed into Tiddalik’s enormous stomach.

The other animals watched in dismay as all the water in the land was drained by Tiddalik’s greedy thirst.

“Stop!” they cried. “If there is no water left, we will all die!”

Tiddalik ignored them and drank until not one lake, creek, billabong, or river had any water left. Finally, his thirst **quenched**, he sat down under a cool eucalyptus.



parching dry
billabong waterhole
remained was left

creek small river
quenched satisfied

► **Before You Continue**

1. **Character** What kind of character is Tiddalik? What kind of relationship does he have with the other animals?
2. **Make Connections** What problems in this story are similar to the ones from “My Great-Grandmother’s Gourd?”

► **Predict**

How will the animals get the water back?

The great, red kangaroo stood before the others and spoke to them.

“Tiddalik must put back the water, and we must find a way to make him!” he boomed.

“That frog is the most selfish animal I have ever seen,” hissed the grandmother snake angrily.

The other animals **grumbled** in agreement. Then the old thorny devil spoke in his raspy voice.

“We must use our **cunning**. If we can just get Tiddalik to open his mouth, all the water will come rushing out, back to where it came from. We must make Tiddalik laugh!”

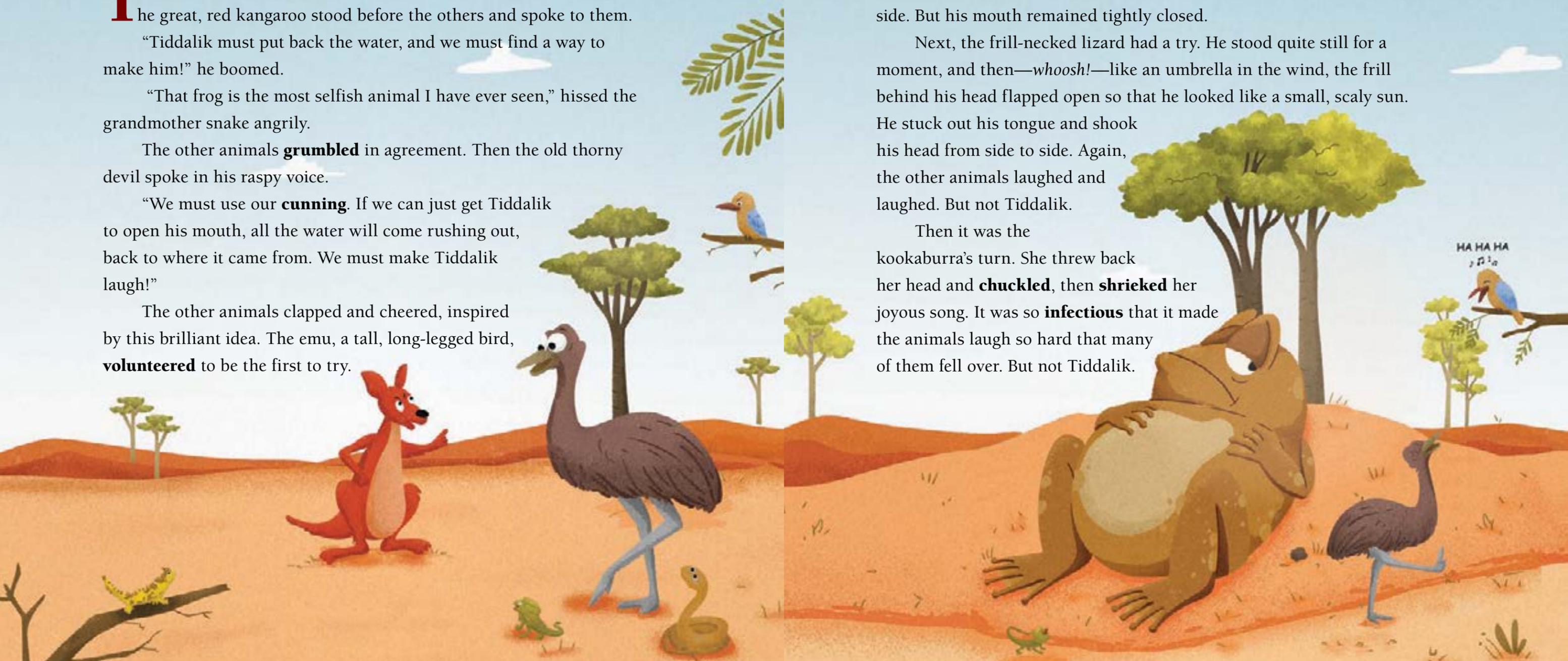
The other animals clapped and cheered, inspired by this brilliant idea. The emu, a tall, long-legged bird, **volunteered** to be the first to try.

The emu **strutted** in front of the great frog, shaking his **shaggy** feathers and bobbing his head on its long, long neck. He looked so funny that all the other animals began to laugh.

Tiddalik watched, his huge eyes following the emu from side to side. But his mouth remained tightly closed.

Next, the frill-necked lizard had a try. He stood quite still for a moment, and then—*whoosh!*—like an umbrella in the wind, the frill behind his head flapped open so that he looked like a small, scaly sun. He stuck out his tongue and shook his head from side to side. Again, the other animals laughed and laughed. But not Tiddalik.

Then it was the kookaburra’s turn. She threw back her head and **chuckled**, then **shrieked** her joyous song. It was so **infectious** that it made the animals laugh so hard that many of them fell over. But not Tiddalik.



grumbled complained
cunning cleverness
volunteered offered

strutted to walk with your chest pushed forward
shaggy thick and messy
chuckled laughed quietly
shrieked shouted
infectious funny

► **Before You Continue**

1. **Character** How do the animals use their characteristics?
2. **Predict** Do you think the animals’ plan will work? Why or why not?

► **Predict**

How will the eel make Tiddalik laugh?

The animals were getting desperate. The hot sun beat down on their heads, and the red sand sent waves of heat into their faces.

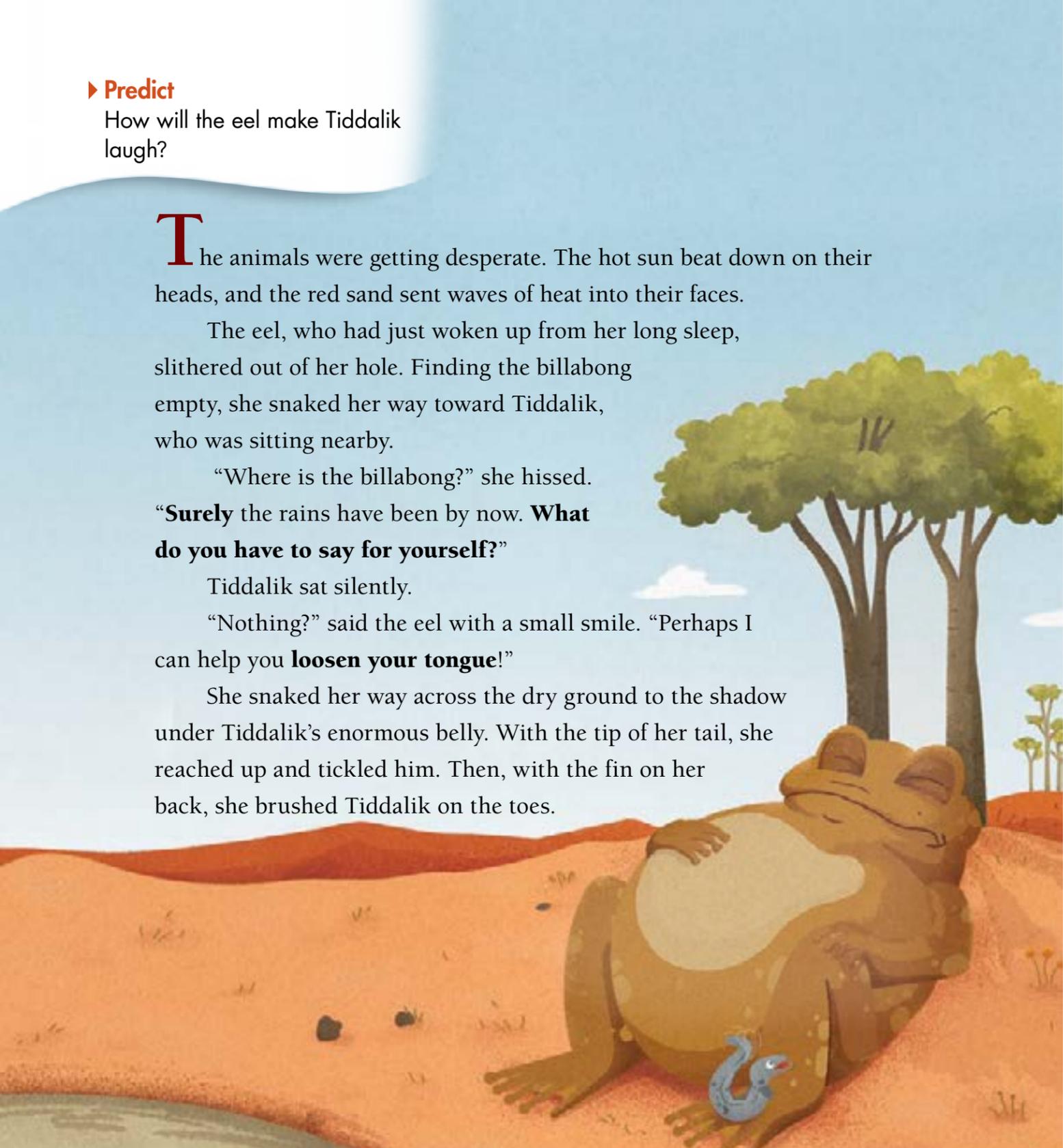
The eel, who had just woken up from her long sleep, slithered out of her hole. Finding the billabong empty, she snaked her way toward Tiddalik, who was sitting nearby.

“Where is the billabong?” she hissed. “**Surely** the rains have been by now. **What do you have to say for yourself?**”

Tiddalik sat silently.

“Nothing?” said the eel with a small smile. “Perhaps I can help you **loosen your tongue!**”

She snaked her way across the dry ground to the shadow under Tiddalik’s enormous belly. With the tip of her tail, she reached up and tickled him. Then, with the fin on her back, she brushed Tiddalik on the toes.

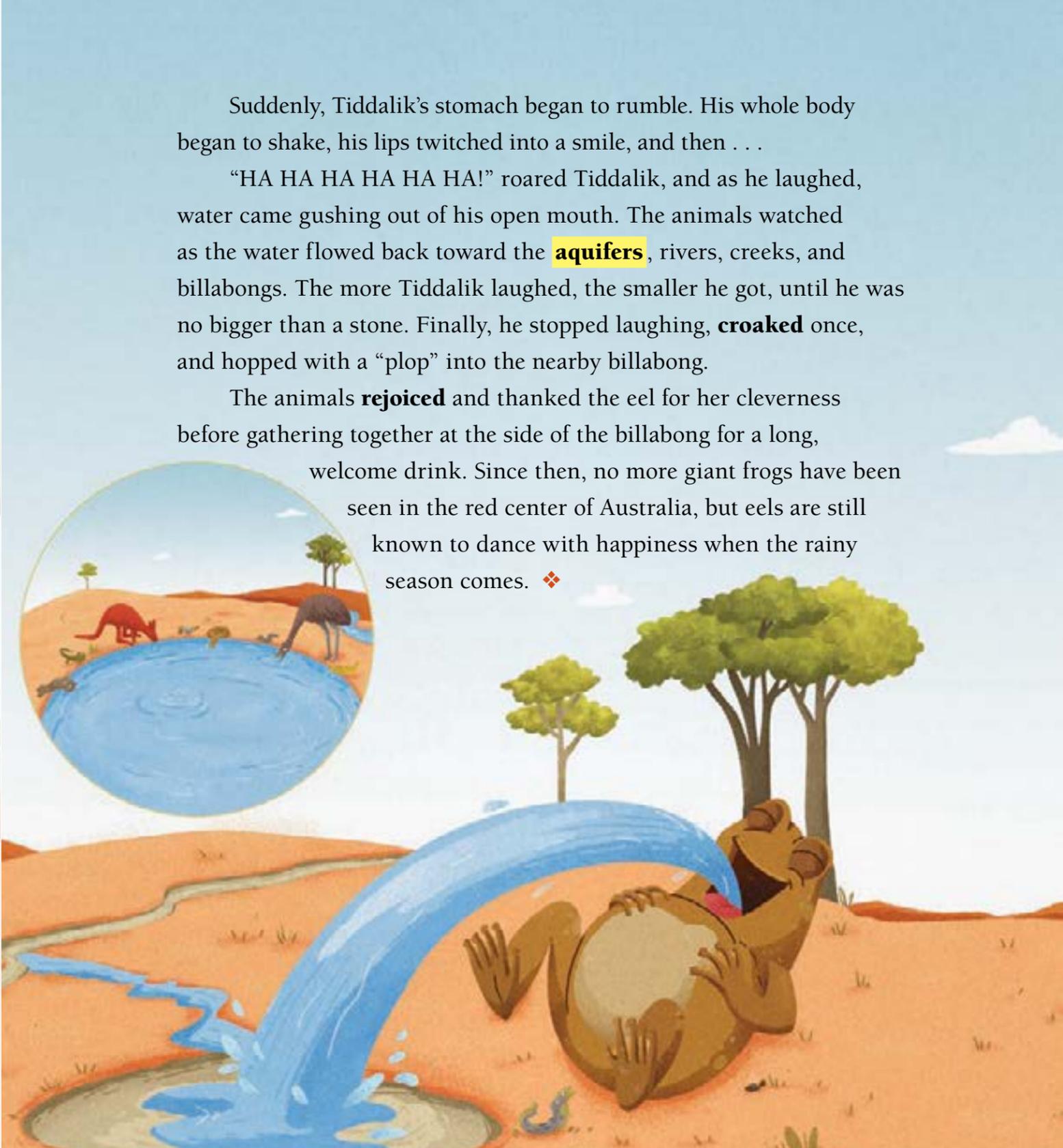


Surely Certainly
What do you have to say for yourself? Explain this
loosen your tongue speak

Suddenly, Tiddalik’s stomach began to rumble. His whole body began to shake, his lips twitched into a smile, and then . . .

“HA HA HA HA HA HA!” roared Tiddalik, and as he laughed, water came gushing out of his open mouth. The animals watched as the water flowed back toward the **aquifers**, rivers, creeks, and billabongs. The more Tiddalik laughed, the smaller he got, until he was no bigger than a stone. Finally, he stopped laughing, **croaked** once, and hopped with a “plop” into the nearby billabong.

The animals **rejoiced** and thanked the eel for her cleverness before gathering together at the side of the billabong for a long, welcome drink. Since then, no more giant frogs have been seen in the red center of Australia, but eels are still known to dance with happiness when the rainy season comes. ❖



croaked made a frog noise
rejoiced celebrated

► **Before You Continue**

1. **Character** What makes the eel different from the other animals? How do you think this helped her succeed where they could not?
2. **Figurative Language** What simile does the author use to describe Tiddalik as he shrinks?

Compare Themes

“My Great-Grandmother’s Gourd” and “The Frog That Swallowed All the Water” are stories from different cultures. Each has different **themes**, or messages. Which themes do both stories share? Which themes are special to one story? Compare and contrast the themes. Work with a partner to complete the chart below.

Comparison Chart

	“The Frog That Swallowed All the Water”	“My Great-Grandmother’s Gourd”
If at first you don't succeed, try and try again.	Yes	
Teamwork works.		Yes
There is more than one way to solve a problem.		
A group is strongest when its members use their different talents.		
Don't give up old ways for new ways.		
Water is important to our lives.		

Talk Together

Think about the selections and the chart above. How do the themes help you understand what people do when water is scarce? Use **Key Words** to discuss your ideas.

Key Words

acquire	climate
aquifer	course
availability	distribution
canal	gourd
capacity	region
channel	scarcity

Grammar and Spelling

Possessive Nouns and Adjectives

A **possessive noun** tells who owns something. **Possessive adjectives** do not use apostrophes.

Grammar Rules Possessive Nouns and Adjectives

	One Owner	More Than One Owner
<ul style="list-style-type: none"> Use an apostrophe (') with a possessive noun. 	Grandmother's baobab tree Tiddalik's stomach	the villagers' pump the animals' plan
<ul style="list-style-type: none"> Use the correct possessive to tell about the number of owners. 	my your his, her, its	our your their

Read Possessive Nouns and Adjectives

Read these sentences from “The Frog That Swallowed All the Water.” What possessive nouns and adjectives can you find?

Then it was Kookaburra’s turn. She threw back her head and chuckled, then shrieked her joyous song. It was so infectious that the animals laughed so hard that many of them fell over. But not Tiddalik.

The animals were getting desperate. The hot sun beat down on their heads and the red sand sent waves of heat into their faces.

Write Possessive Nouns and Adjectives

Look at the picture on page 55. Write two sentences to describe what you see. Use possessive nouns and possessive adjectives. Share your sentences with a partner.

Writing Project

Write As a Journalist

Write a Magazine Article

Write a magazine article that explains something about the importance of water. Add it to a class magazine.

Study a Model

A magazine article provides information in an engaging way. Read Sara's article about tips for saving water.

Be Water Wise

by Sara Alvarez

Do you want to waste water? Probably not. If you let water run too long, you can waste thousands of gallons. **Here are some ways I conserved water.**

The toughest thing I did was to stop taking long showers! I set a timer for five minutes. **That way I saved almost 1,000 gallons a month.**

Also, I turned off the water while I was brushing my teeth. **I didn't want to be responsible for having four gallons a minute go down the drain!**

So, just by turning off the water I became water-wise. **How will you conserve water?**

Supporting details in each paragraph help develop the main idea.

An opening question gets the reader's attention. The **main idea is in the opening paragraph.**

Different **sentence types keep the article interesting.**

Prewrite

1. **Choose a Topic** Talk with a partner to find a topic that's interesting.

Language Frames

Tell Your Ideas

- _____ is important because _____.
- An interesting fact about _____ is _____.
- If we don't _____, then _____.

Respond to Ideas

- I don't understand what you mean by _____. Can you say it in a different way?
- What else will you say about _____?
- Can you think of a more interesting idea than _____?

2. **Gather Information** Think about your main idea. What details can you use to develop it? Where can you find those details?

3. **Get Organized** Use an outline like this one to help you organize your information.

Outline

I. Ways to Conserve Water

A. stop taking long showers

B. don't let water run while brushing your teeth

Draft

Use your outline to write your draft. Use supporting details to develop your main idea. Vary your sentences to keep your writing interesting.

Writing Project, continued

Revise

- 1. Read, Retell, Respond** Read your draft aloud to a partner. Your partner listens and retells what you said. Next, talk about ways to improve your writing.

Language Frames

Retell

- Your article is about _____.
- The important details are _____.
- The most interesting part is _____.

Make Suggestions

- Your main idea needs to be developed more. Add _____.
- Your article would be more interesting if you _____.
- I'm not sure why you included _____.

- 2. Make Changes** Think about your draft and your partner's suggestions. Then use revision marks to make your changes.

- Is your writing well-developed? Add details, if necessary, to make your ideas clear.

The toughest thing I did was to stop taking long showers! I set a timer for five minutes. [^] That way I saved almost 1,000 gallons a month.

- Is your article written in an engaging way? Vary your sentences to add interest.

Do you want to waste water?

[^] ~~It's important to conserve water and not waste it.~~

Edit and Proofread

Work with a partner to edit and proofread your article. Check your use of apostrophes with possessive nouns. Remember that possessive adjectives do not use apostrophes.

Spelling Tip

Add **-er** to an adjective when you compare two things. Add **-est** if you are comparing more than two things.

clean**er** water
the clean**est** water

Present

On Your Own Make a final copy of your article. Read it to a group of your classmates.

Presentation Tips

If you are the speaker...	If you are the listener...
Pronounce your words. Make sure each one can be understood.	Listen for the main idea and supporting details.
Vary your volume and tone to keep your article interesting.	Afterwards, share your own ideas about the topic.

In a Group Combine your articles into a magazine. Design a cover and think of a great title. Format the articles in different ways. Vary the shape, colors, and fonts.



Share Your Ideas

Choose one of these ways to share your ideas about the **Big Question**.

Write It!

Make a Poster

Create a poster that encourages people to conserve water. Include a picture or drawing, and write a catchy title.

**Don't Let
the Well
Run Dry!**



Talk About It!

Make a Presentation

Research one tropical wetland in the world. Then give a presentation to the class. Define what a wetland is and explain why wetlands are important. Include some pictures or drawings to make your presentation appealing.



Do It!

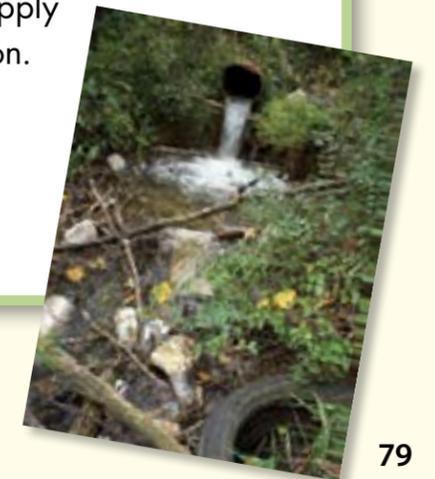
Choose the Best Way

What is the best way to get the message out about water conservation? Think about how TV shows, websites, blogs, and films give messages. Decide which one would be best. Work with a partner. Talk about the strengths of each type of media.

Write It!

Write a Legend

Write a short legend about how two or three characters use their strength and their brains to protect the water supply in your region. Read your "modern" legend to a partner.



?
BIG
Question

Why is water so important?

Talk Together

In this unit, you found lots of answers to the **Big Question**. Now use your concept map to discuss the **Big Question** with the class.

Concept Map



Write a Journal Entry

Look at your concept map. Choose one reason that explains why water is important. Write a journal entry about it.