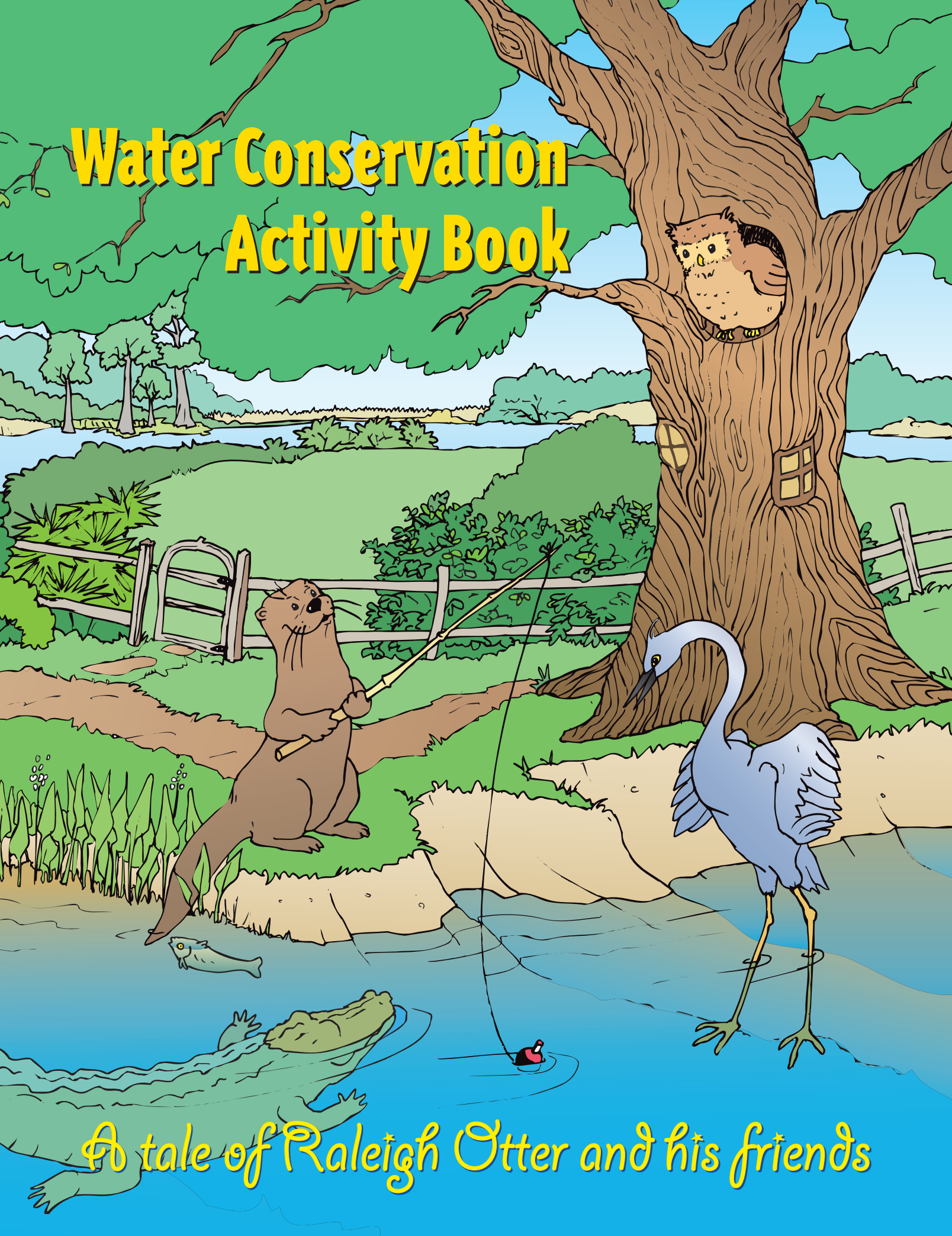


Water Conservation Activity Book



A tale of Raleigh Otter and his friends

Dear teacher or parent,

The St. Johns River Water Management District designed this book to teach young people how important Florida's water resources are, while fostering a natural curiosity and enjoyment of learning. This book contains engaging games and pictures, woven into an interesting and educational story. Answers to the activities can be found on the inside back cover of this book.

More than 95 percent of us in northeast and east-central Florida get our drinking water from wells drilled into the ground. Use of this groundwater, however, exceeds the rate at which it is being replenished. We are investigating new sources of water to help meet our future needs. But a healthy future for Florida requires water conservation and an understanding of water-related issues.

For more information on our region's water resources, visit us on the Internet at www.sjrwmd.com or contact us at

St. Johns River Water Management District
Office of Strategic Communications and Engagement
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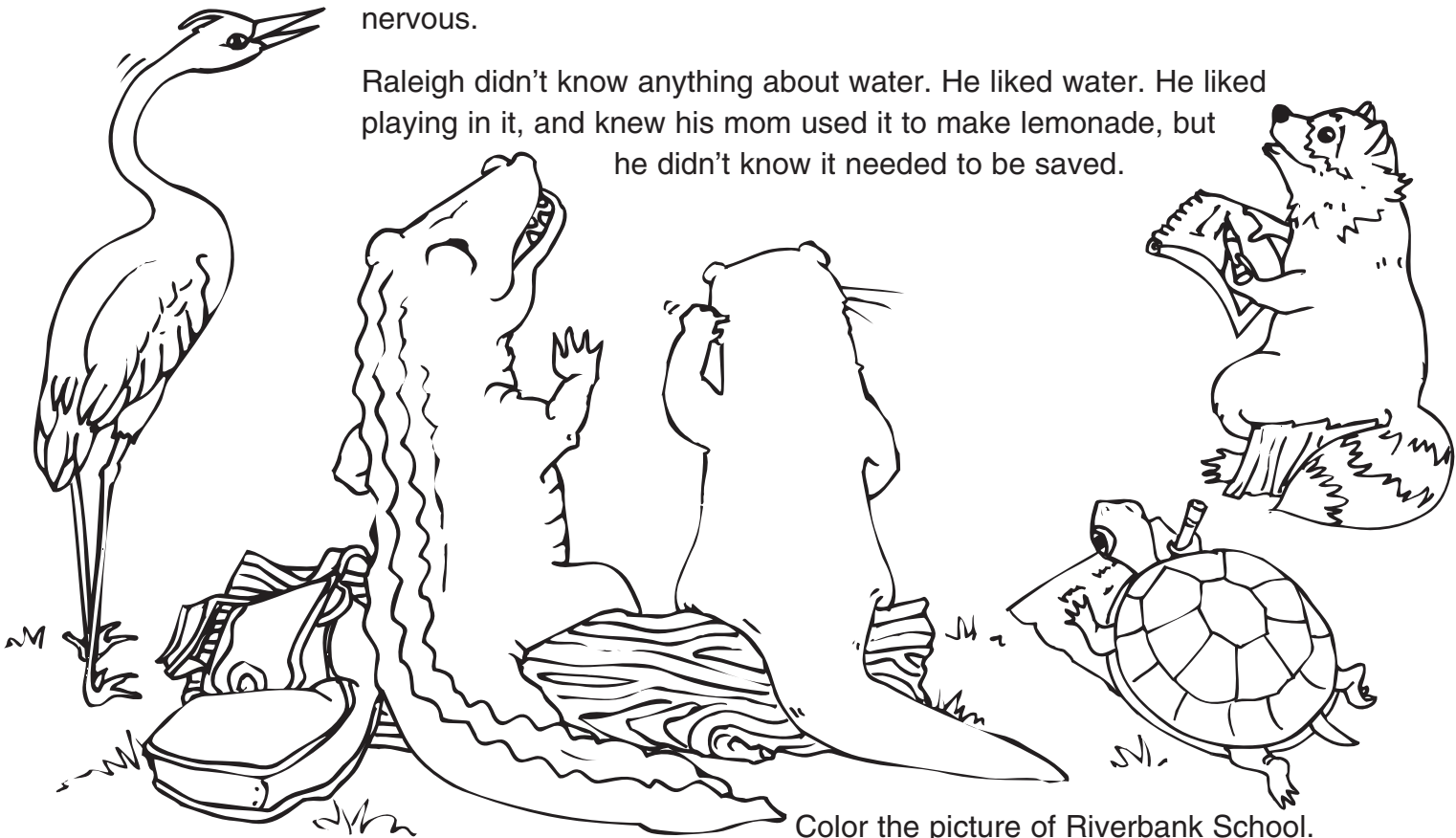




“Today we’re going to talk about saving water,” said Teacher with a smile, as she stood in front of the class at the board.

Alice the Alligator grinned, showing off her gigantic teeth. Tomas the Turtle poked his head out of his shell and took out a pencil. Tomas always took notes. Harriet the Heron fluttered to her place. “I like water,” said Harriet. “This will be fun.” Raleigh Otter was nervous.

Raleigh didn’t know anything about water. He liked water. He liked playing in it, and knew his mom used it to make lemonade, but he didn’t know it needed to be saved.



Color the picture of Riverbank School.

“Does anyone know where drinking water comes from?” asked Teacher.

Everyone raised his or her hand (except for Raleigh), but Harriet piped right up. “It comes out of the faucet,” she squawked.

“Yes,” said Teacher. “But how does it get there?”

No one knew.

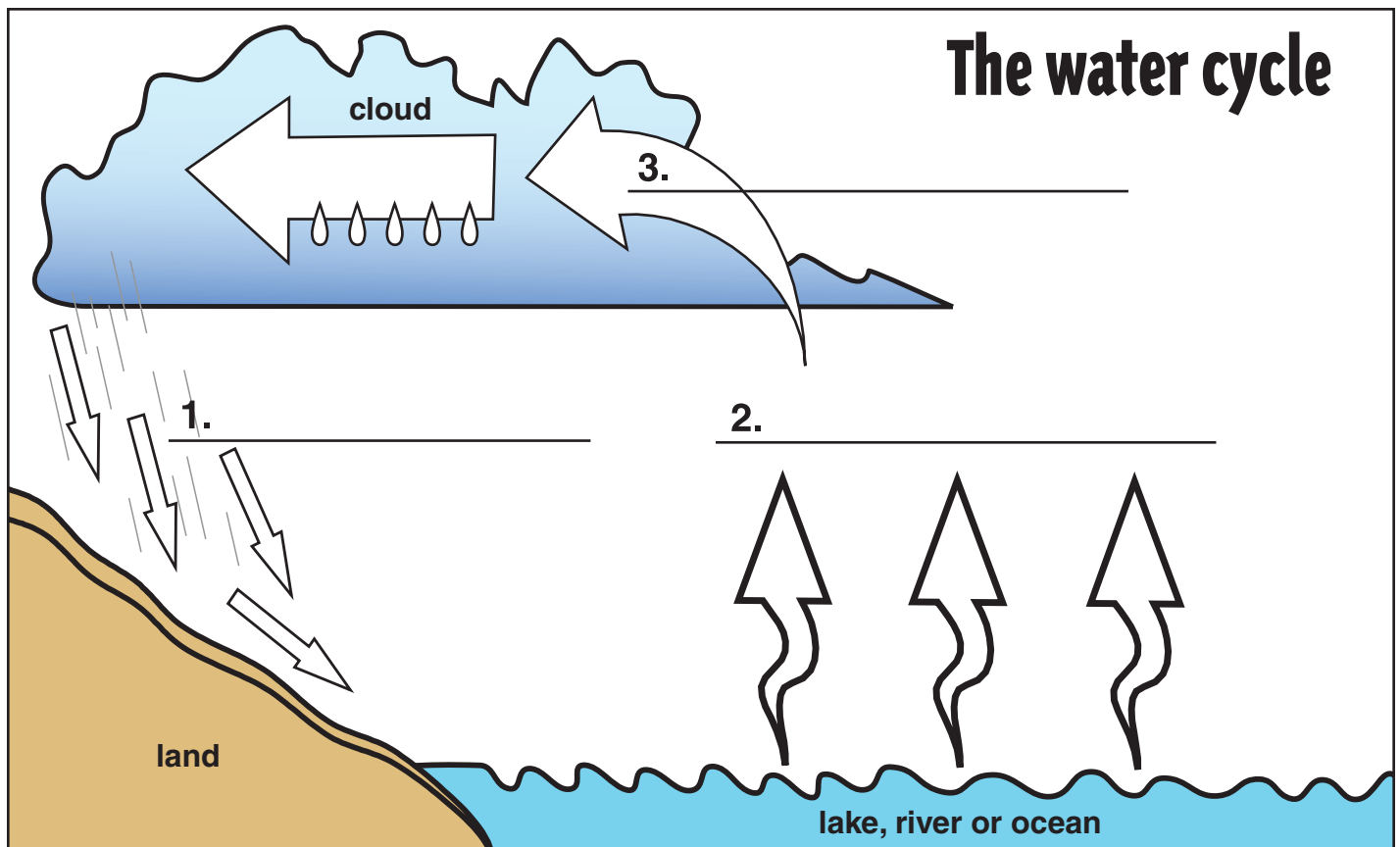
“Does anyone know where river water comes from?” asked Teacher next.

Everyone raised his or her hand again (except for Raleigh), but Harriet jumped right in. “From the sky,” she said. “When it rains.”

“Yes,” said Teacher. “But how does it get into the sky?” No one knew. Raleigh was starting to feel a little better.



This is a picture of the water cycle. Read Teacher’s descriptions of precipitation, evaporation and condensation on the next page. Write each word next to the set of arrows where the process is pictured. Color the arrows showing precipitation blue. Color the arrows showing evaporation orange. Color the arrows showing condensation purple.

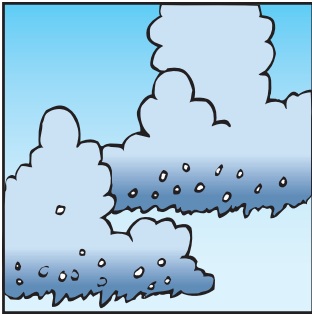


“Water is always changing forms,” said Teacher. “Heat and cold turn it into a solid, liquid or gas. When water in a lake is warmed by the sun’s energy, the water turns into a gas. This is called **evaporation**, and it is how the water gets into the sky. The gas drifts up into the clouds and stays there until it cools off and turns into liquid. This is called **condensation**. When the liquid falls from the sky as rain or snow, it is called **precipitation**. When water gets really cold, it turns into ice, which is a solid. Repeat after me, class.”

“Evaporation! Condensation! Precipitation!” the class shouted all at once. Raleigh giggled; he thought the words sounded funny. Tomas took careful notes.



Fill in the blanks below with the word that best describes the process taking place.



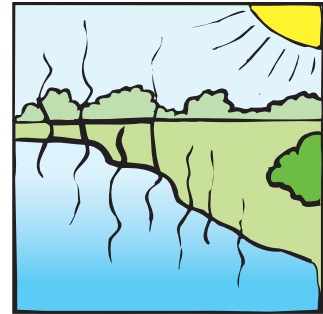
When a cloud full of water vapor cools off and changes back into liquid water. This is called

_____.



When water droplets fall from the sky, it is called

_____.



On a hot summer day, water in a lake warms up and becomes a vapor and rises into the sky. This is called

_____.



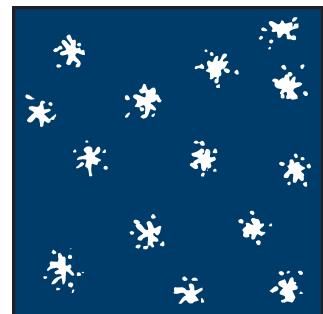
When moisture droplets form on the outside of your glass of ice water, it is called

_____.



When water boils in a tea kettle and steam comes out of the spout, it is called

_____.



Snow is a frozen form of

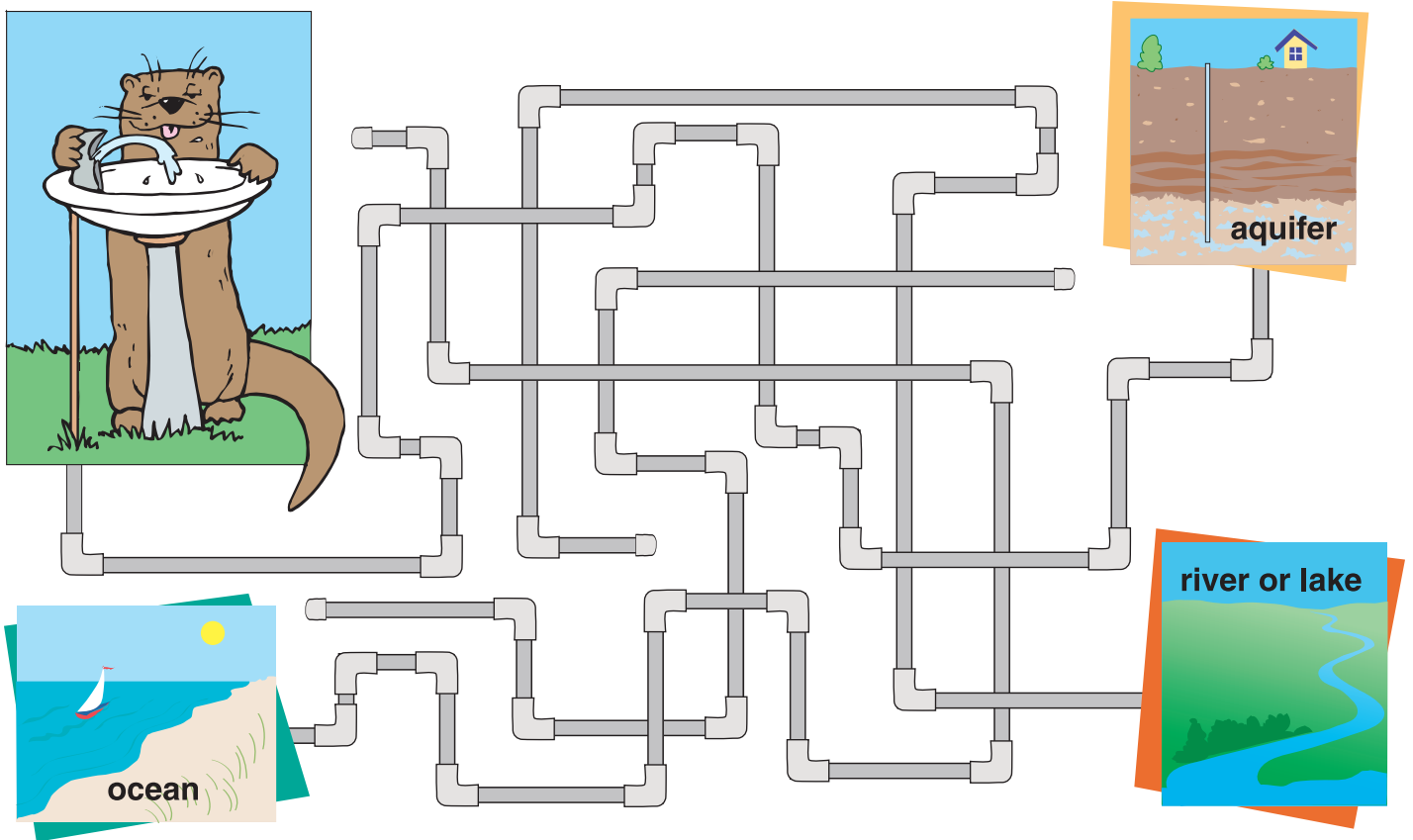
_____.

“We get our drinking water when it’s in liquid form,” Teacher continued. “Most of it comes from water collected underground. Where the water collects is called an **aquifer**. But some of it comes from rivers and lakes, and some even comes from the ocean.”

“Yuck!” said Rowen the Raccoon. “River water is dirty, and ocean water tastes really salty.” He had never even heard of water being underground.

Teacher chuckled. “Don’t worry,” she said. “Before it gets to our faucets or drinking fountains, it is cleaned. Scientists take all of the dirt and salt out of it with specially made filters.”

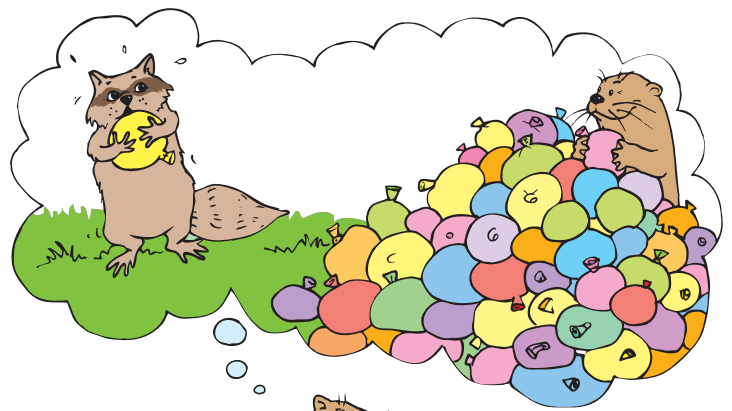
Follow the pipes to find out where Raleigh’s drink of water is coming from.



“Will we ever run out of water?” asked Tomas, pencil in hand.

“Well, not if we use water wisely,” said Teacher. “You see, of all the water in the whole wide world, only a small part is used for things like drinking. In fact, less than one percent of it can be used easily. That tiny bit is the water that comes to our houses.”

Raleigh did not know how much one percent was, but it did not sound like much. He knew that if he were in a water balloon fight, he would want to be able to use much more than that.



Pictured below are 100 water balloons.

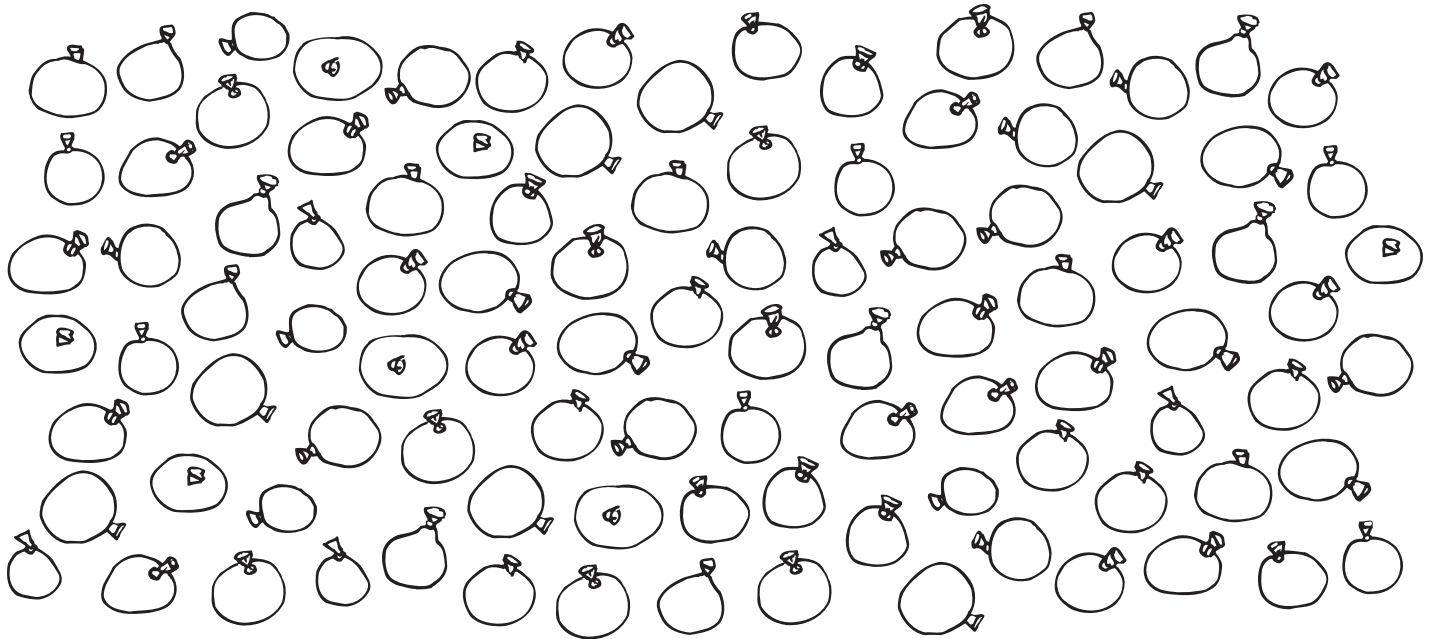
Color 1 of them red. That is 1 percent.

Color another 25 of them blue. That is 25 percent.

Color another 10 of them green. That is 10 percent.

Fill in the blanks.

_____ of the water balloons are
not colored. That is _____ percent.



Teacher explained that if all the water in the world was put into a one-gallon bucket, only a tablespoon would be useable.

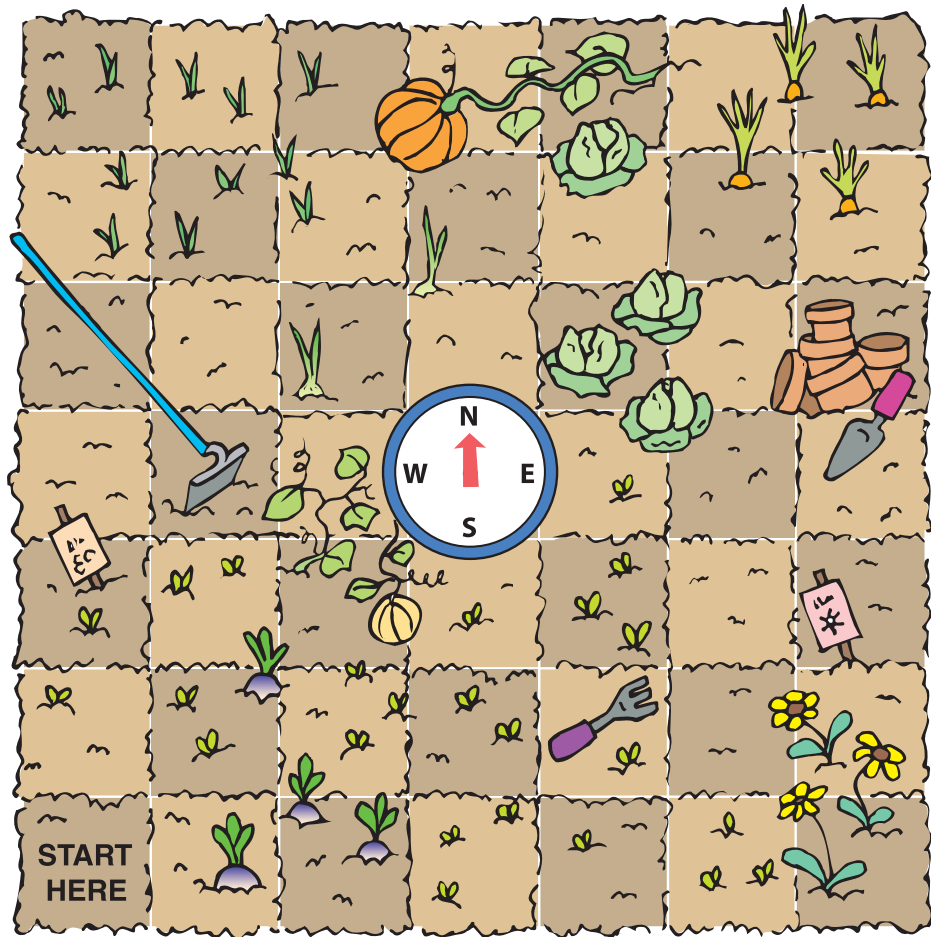
“That’s why we need to save water,” said Teacher. We depend on it for so much, but there’s only a limited amount we can use.”

Raleigh realized saving water was important, but he did not know how to do that. “How do we save water?” he asked.

“That’s a good question,” said Teacher. “Does anyone save water at home?”

"I do!" squeaked Rowen. "At home, we collect all of the rain that falls on our house in barrels. Then, when we water our garden, we use the rainwater instead of water from the faucet."

"Good," said Teacher.



Help Rowen remember where he planted his corn patch. Start in the bottom left square and use the compass in the middle of Rowen's garden. Follow these instructions:

1. Go north 1 square.
2. Go east 5 squares.
3. Go north 4 squares.
4. Go west 1 square.
5. Go south 1 square.
6. Go west 3 squares.
7. Go north 1 square.

Congratulations on finishing the search! You can check your answer at the back of this book.

Everyone else took turns telling about how they save water at home.

Tomas went first. "When I take a bath, I only fill the tub halfway," said Tomas. "Not only does it save water, but there is plenty of room for my tub toys."



Bathtime for Tomas

d	r	b	b	y	t	r
u	v	a	a	o	e	m
c	t	t	y	p	a	a
k	u	h	p	s	a	t
n	b	i	k	a	q	e
u	l	e	d	c	i	t
f	r	o	g	w	s	l

Find the following words in the box and draw a line through them.

boat
duck
pail
flipper
frog
mask
tub
fun
bath
mat
toy

After you have solved the puzzle, write the leftover red letters in the spaces below and unscramble them to reveal a secret message.



Hint: The second word starts with a "w."



"I turn off the faucet while I'm brushing my teeth," said Alice. "I make sure to brush them really well, and letting the water run all that time is wasteful." Alice grinned, and the class agreed that she had beautiful teeth.

Toothbrush Mix-up

Alice, Rowen, Harriet, Tomas, Raleigh and Omar have gotten their toothbrushes all mixed up. Can you help sort them out? On the line beside each toothbrush, write the name of its owner.

Here are some hints.*

Alice's toothbrush is above Harriet's.

Raleigh's toothbrush is not blue.

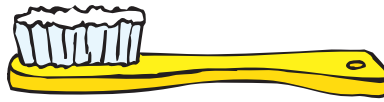
Omar's toothbrush is beside Tomas'.

Harriet's toothbrush has an animal on the handle.

Tomas has the smallest toothbrush.

Rowen's toothbrush is striped.

None of the students has a toothbrush with a dinosaur on the handle.




















* Extra clue: Read all of the hints before you start working.

Harriet squawked out next. "When I help my mom and dad wash the car at home, we put a nozzle on the hose and we use buckets with soap and water," she said, flapping about proudly. "This saves us a lot of water."



Can you figure out the answer to this problem? Write your answer in the blank at the bottom of the page.

It takes Richard 20 minutes to wash his  . He leaves the  running. His hose uses 2 gallons every minute.

Suzie also takes 20 minutes to wash her  , but she uses a bucket and a  and turns the water off when she is not rinsing the  off her car. She uses 4 gallons of water.

Richard uses _____ more gallons of water than Suzie.

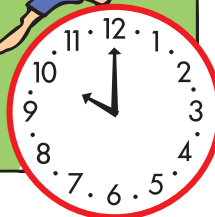
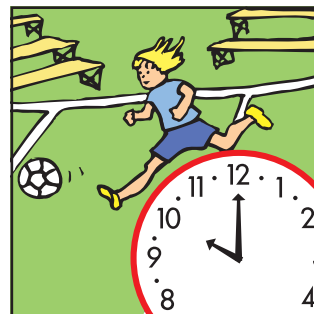
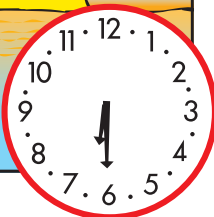
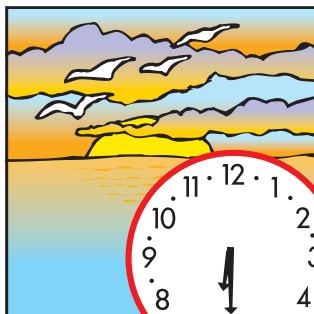
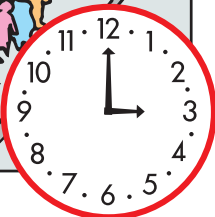
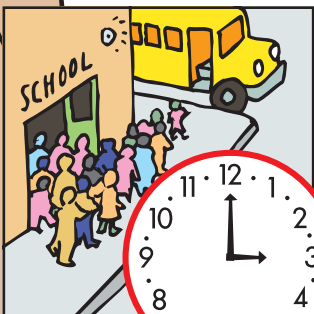
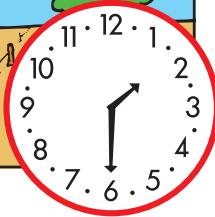
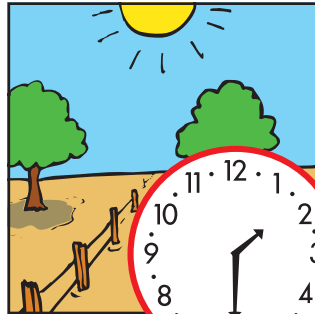
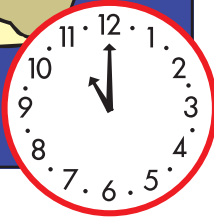
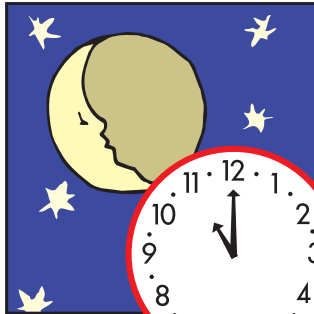
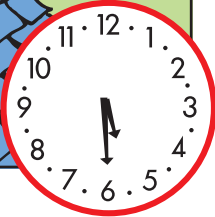
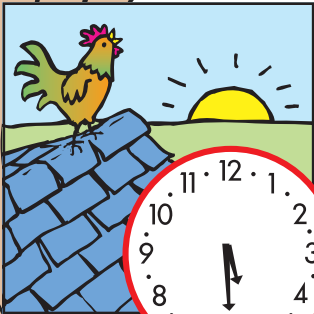
Harriet was so loud that she woke up Omar the Owl. Sleepily, he opened his eyes and looked around. "My family and I only water our lawn between 4 in the afternoon and 10 in the morning," he yawned.

"That is when it is coolest outside. When it gets really hot, the water dries up before it does any good."

Raleigh thought that watering late in the afternoon or early in the morning was easy for owls, since they sleep all day anyway.

"We also make sure to water only when our lawn needs water and only on our designated day," Omar added.

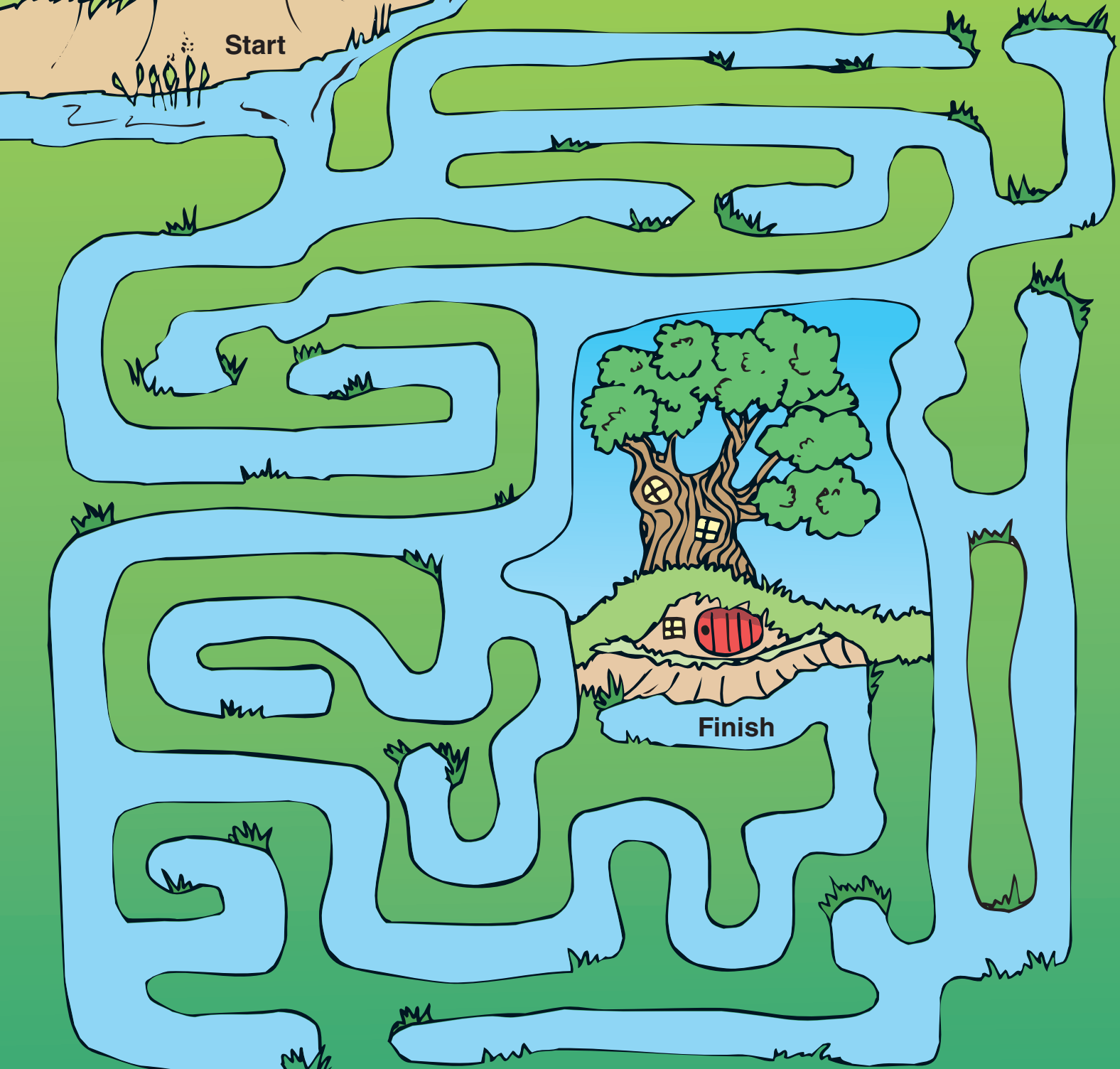
Write the time on the line under the picture. Put an X on the clocks that show a time when outdoor watering is not allowed.





Luckily for Raleigh, class ended before he had to tell how he saves water, since he had no idea. He thought about it all the way home.

Be a friend and help Raleigh find his way home.

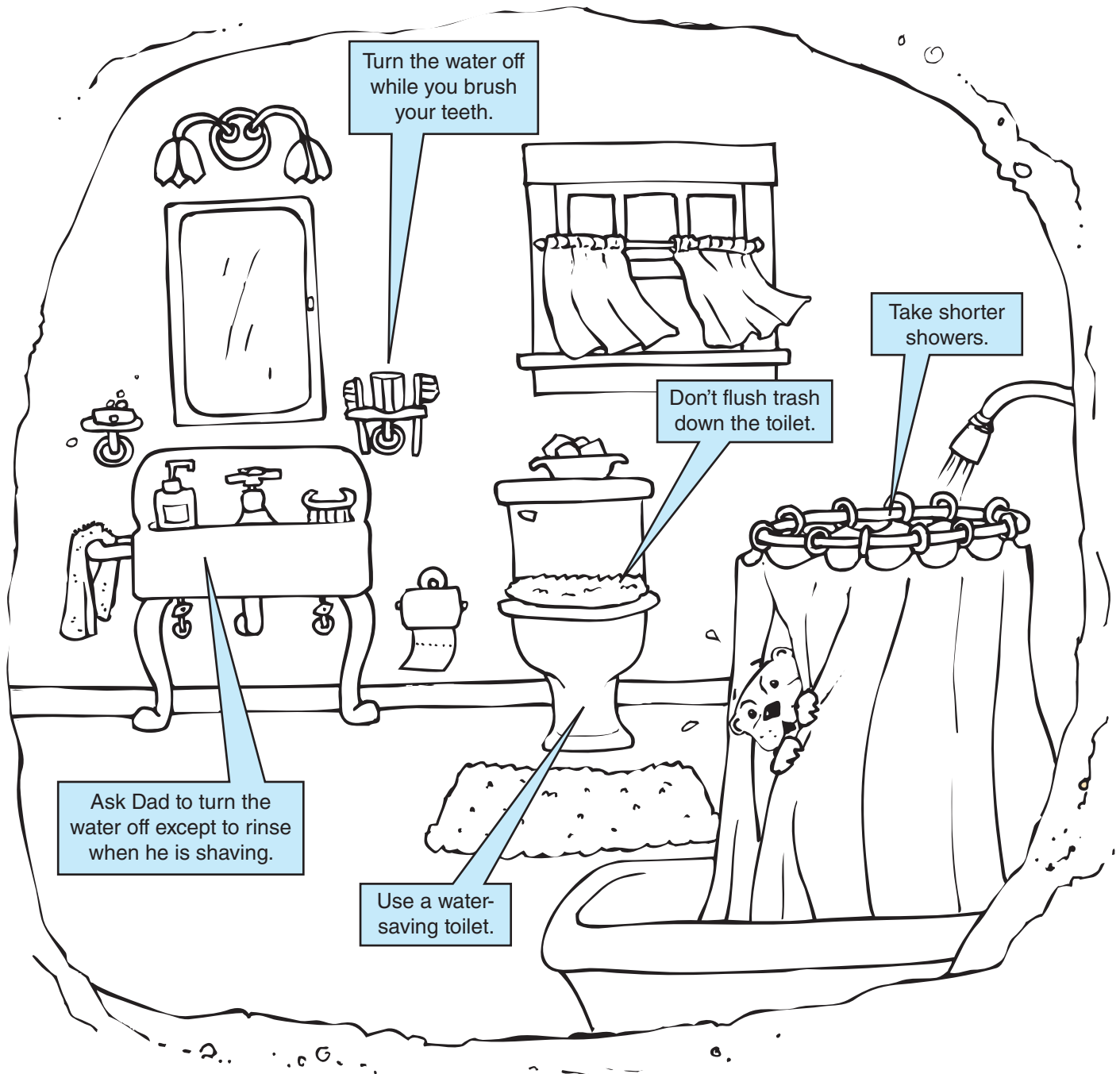


When he got home, his mom was doing the dishes. "Mom," Raleigh said. "How do we save water at home?"

"Lots of ways," said Momma Otter. She then took him around their home and showed him all the ways they save water. With each lesson he grew prouder, and when she was done, he beamed with joy.

Now Raleigh Otter knew how to save water too.





Color the pictures of the Otter family's home.

Write some of the ways that your family saves water in your home.

Raleigh Otter and his friends live on a conservation land. Conservation lands are large pieces of land that people agree not to build anything on, like houses or roads.

These lands do several things. They give animals like otters places to live. They protect nature by keeping people from cutting down trees and putting trash in lakes and rivers. They also give people places to swim and go fishing.

Raleigh learned in school that the water he uses comes mostly from underground but some can come from rivers and lakes. By protecting land above or around these places, people protect the water they use every day.

The Riverbank School students are going on a nature hike. They will be following the trail shown on the map on the next page.

How good are your map-reading skills? Use the distances marked on the trail to figure out the answers to the following questions. Good luck!

First, they hike to the look-out tower. How many miles to the tower? _____miles

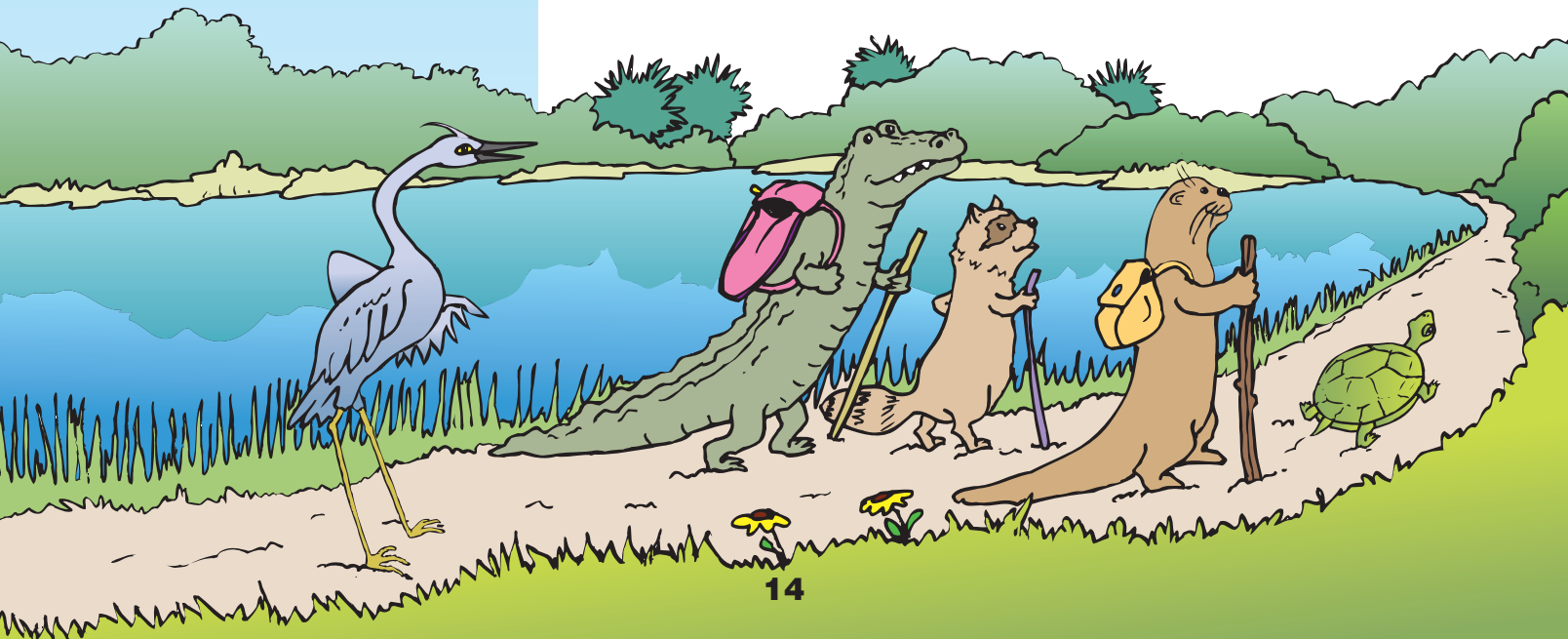
Next, they hike to Frog Pond. How many miles has the group hiked now? _____miles

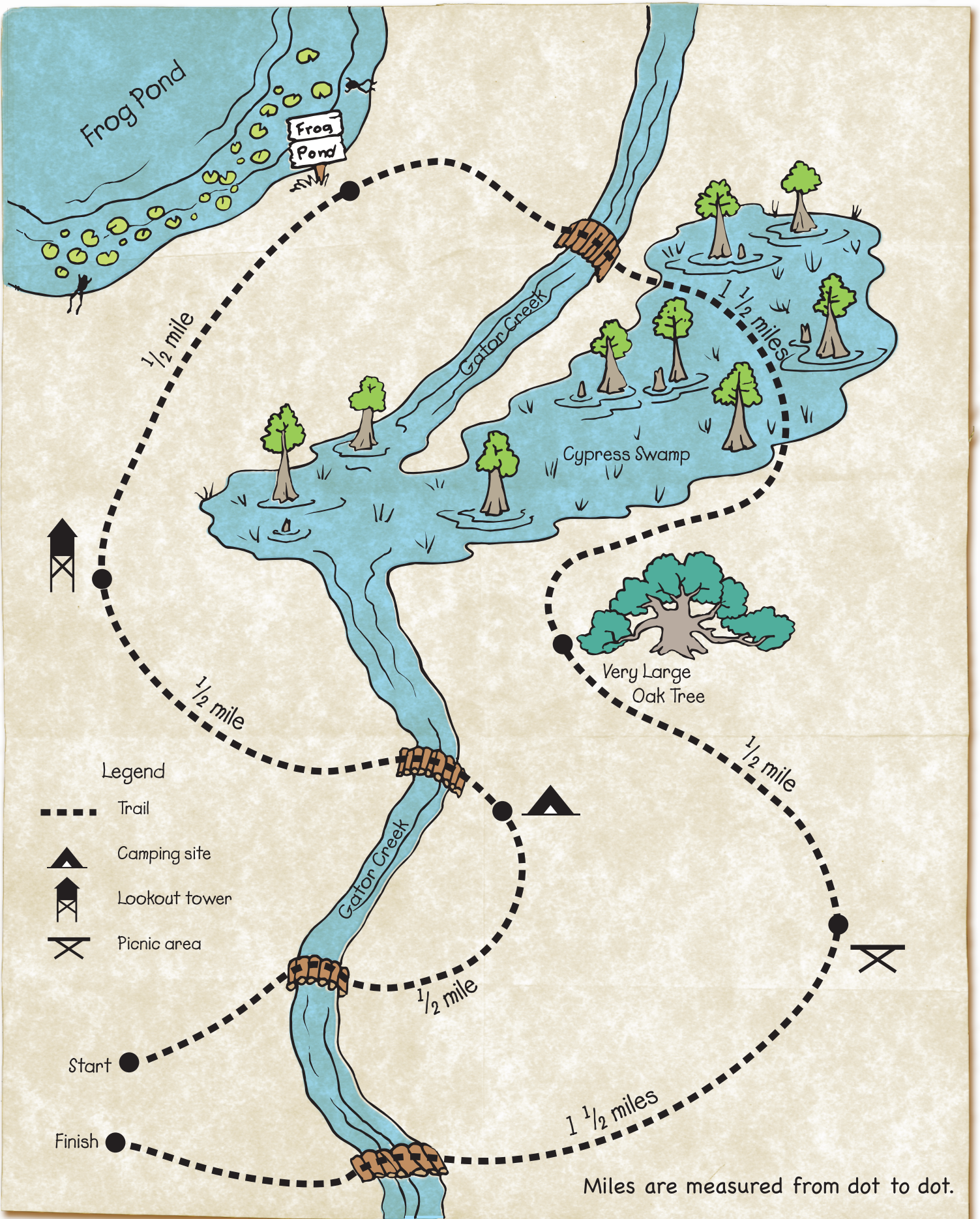
Oops! Rowen left his canteen at the camping site and has to walk all the way back to get it and then catch up with the rest of the group. How many extra miles did Rowen walk?
_____miles

When they reach the Very Large Oak Tree, Alice takes a photo with her new camera. She wonders if it would be fewer miles to walk back to the trail start, or to continue on to the trail finish. Which would be fewer miles? _____

Alice and Tomas like to cool off and play in the water when they cross Gator Creek. How many times do they cross the creek? _____ times

Raleigh wants to know how many miles he will have hiked if he hikes the entire trail, from start to finish. Can you help him?
_____miles





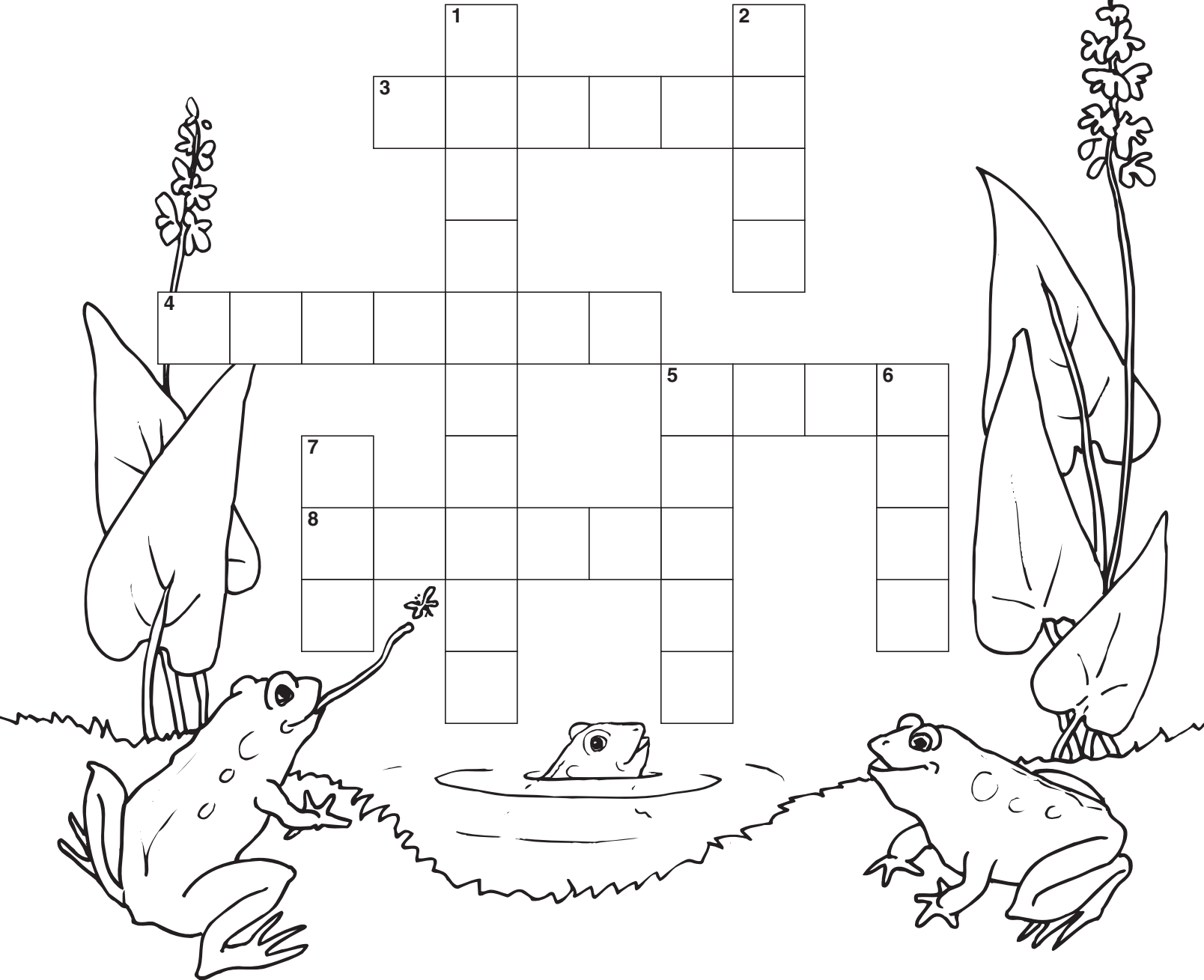
Legend

- Trail
- ▲ Camping site
- ⊠ Lookout tower
- ✕ Picnic area

Miles are measured from dot to dot.

Fun with Frogs

The frogs who live in Frog Pond have a crossword puzzle for you to solve. After you finish solving the puzzle, you can color the picture.



Across

3. We use this on the end of a hose to save water.
4. This holds water in the refrigerator to keep it cool.
5. We do this so our hands and clothes stay clean.
8. Use this to turn water on and off at the sink.

Down

1. This is used when we brush our teeth.
2. Fix this to save water.
5. We drink this when we are thirsty and bathe in it to get clean.
6. Attach this to a faucet and use it with a nozzle to wash your car.
7. If we want to save water, we must turn it _____.



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