

Pecos and the Missing Pond



a read aloud
story, activity &
coloring book
about water
conservation
*for early
elementary
grades*



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Somewhere in the desert southwest, not too far from the mountains and not too close to the river, lived two kangaroo rat brothers. Their names were Pecos and Rio.

Pecos, who was quite young, asked a lot of questions. He wondered about many things. This sometimes made him worry. Fortunately, his big brother Rio knew a lot of answers.

During the day, the brothers slept underground in their cozy burrow made of sandy soil. Their burrow kept them safe. It also kept them cool in the summer and warm in the winter. Each night, Pecos and Rio left their home to gather food. Most of the time, they did not need to look for water to drink. This is because they got most of their water from the seeds and plants they ate. This left them with time to go on adventures.

“Let’s go to the pond!” said Pecos. Many of their friends lived near the pond, but the brothers hadn’t been there in a long time. Pecos was worried. A friend told him that the pond had disappeared. This seemed impossible, so Pecos wanted to see it for himself.

The brothers hopped quickly over the sandy soil. Rio, who was bigger, could jump nearly six feet in a single hop! It was hard for Pecos to keep up with him. They continued through the grasses and down into the dry stream bed. Up the path they went, careful not to bump into any prickly pear cactus. They headed for the tall cottonwood trees.



Their cozy burrow kept them safe.

To their surprise, a big puddle of mud lay before them. "Where is the pond?" Rio asked. "And where did our friends go?"

They stood there confused, wondering how the pond could have disappeared.

Rio knew that being worried doesn't actually solve anything. When he feels worried, he looks for clues that help explain the problem. The brothers walked around the muddy area, looking for clues. They saw many tracks in the mud, but no other sign of their friends. Rio looked up at the green leaves of the cottonwood trees. He looked at the green leaves of the plants around the pond. The green leaves were a clue.

Rio felt the wind blow. He remembered that it hadn't rained in a long time. These were two more clues. Rio finally said something. "It seems," he said, scratching his chin, "that some of the pond water went into the ground."

"How can you tell?" asked Pecos.

"The trees and plants are alive, " said Rio. "This means there is enough water underground for their roots."

At last, Rio smiled. He realized where most of the pond water must have gone. He said it was probably taken by the sun and the wind. It had evaporated!

Pecos did not understand how the sun and wind could make pond water disappear.



Where is the pond?!

"The sun and wind always take some pond water. Most of the time, rain and snow add water back to the pond. But we haven't had much rain or snow in a long time," explained Rio.

Pecos still did not understand, so Rio found a big stick. He started drawing in the mud. He said sometimes we can see water. Sometimes it is invisible. Sometimes it is on top of the ground. Sometimes it is below the ground. He drew the sky with the sun. He drew some clouds. He drew tall mountains, desert plants and a pond.

Then he drew a line to show the ground. Below the line for the ground, Rio drew tree roots. Near the tree roots, he drew dirt and rocks. Below that, he drew big rocks and small rocks with a lot of water in between all those rocks.

Next, Rio added rain drops and snow flakes falling from clouds. He drew snow on the mountains. Finally, he showed what happens when it rains and when the snow melts. He said water is always moving. He called his drawing "the water cycle."

After hearing his big brother explain things, Pecos started to feel a little better about the missing pond. Maybe the water cycle would make the pond come back.

Then he thought about his pond friends. Pecos wondered if he would ever see them again. Maybe they had to move far away, to another pond. He asked Rio, "Are we going to run out of water?"

**I wonder if the water cycle
will make the pond come
back...**



“It is true that we need water for a lot of things,” said Rio. “We will be OK as long as we are careful not to waste it, and as long as we share it.”

This made sense to Pecos. He was happy because he could think of lots of ways to save water, and he was really good at sharing.

Rio and Pecos were getting hungry. It was time to head home.

The brothers stopped to rest. Not long ago, they buried their favorite grass seeds under a nearby rock. Now their snack was missing! They hopped past the prickly pear cactus. This time, Pecos noticed a big bite out of it. “What hungry or thirsty animal did this?” he wondered. He knew that this cactus provides both food and water for some desert animals.

In a few more hops, Rio and Pecos were safe in their burrow. They were too tired to eat. Pecos washed up and went to bed. As he fell asleep, he thought about the missing pond. He thought about the missing friends. He thought about the missing snack and the missing piece of prickly pear cactus.

The next day, Pecos jumped out of bed. A new idea had popped into his head! Maybe his friends would return if the pond had more water. There seemed to be plenty of water here at their home. What if he filled the pond using water from their burrow? All he had to do was move water from their burrow to the pond!



What hungry or thirsty animal did this?

Pecos went into the bathroom and filled a big bucket with water. He picked up the bucket. It was really heavy. Water spilled everywhere. This was not going to work!

Rio heard splashing and ran to see what was happening. Pecos was now crying. To cheer him up, Rio said they should play a game. Pecos sniffled. He was very quiet. Rio said, "I spy with my little eye something that sounds like *flower*."

Pecos looked around the bathroom. He saw the toilet. He saw the faucet. He saw the bathtub, sink, towel and light. At last he said, "Shower!" They took turns playing the game many times. They had so much fun, they almost forgot how hungry they were.

In the kitchen, Rio opened his jar of favorite seeds. It was empty. He opened another jar. It was empty, too! Pecos shared his jar of seeds with Rio. This made Pecos think about sharing. It made him think about his friends. He had another question.

"If everyone shares their water, will it help the pond come back?" he asked.

Rio stopped chewing. He looked at his brother. Rio realized he might be wrong about something he told Pecos. Did the sun and wind take most of the pond water after all, or is there more to the missing pond story? He closed his eyes, which helped him think. "Is there a missing link?" he asked himself.

A smile returned to Rio's face. He realized he had forgotten to tell Pecos about something very important.



Pecos washes up.

“Do you know where our water comes from?” asked Rio. “I am talking about the clean water that comes into our burrow. The water that comes out of our faucets.”

“You told me it is pumped from the ground using a well,” said Pecos.

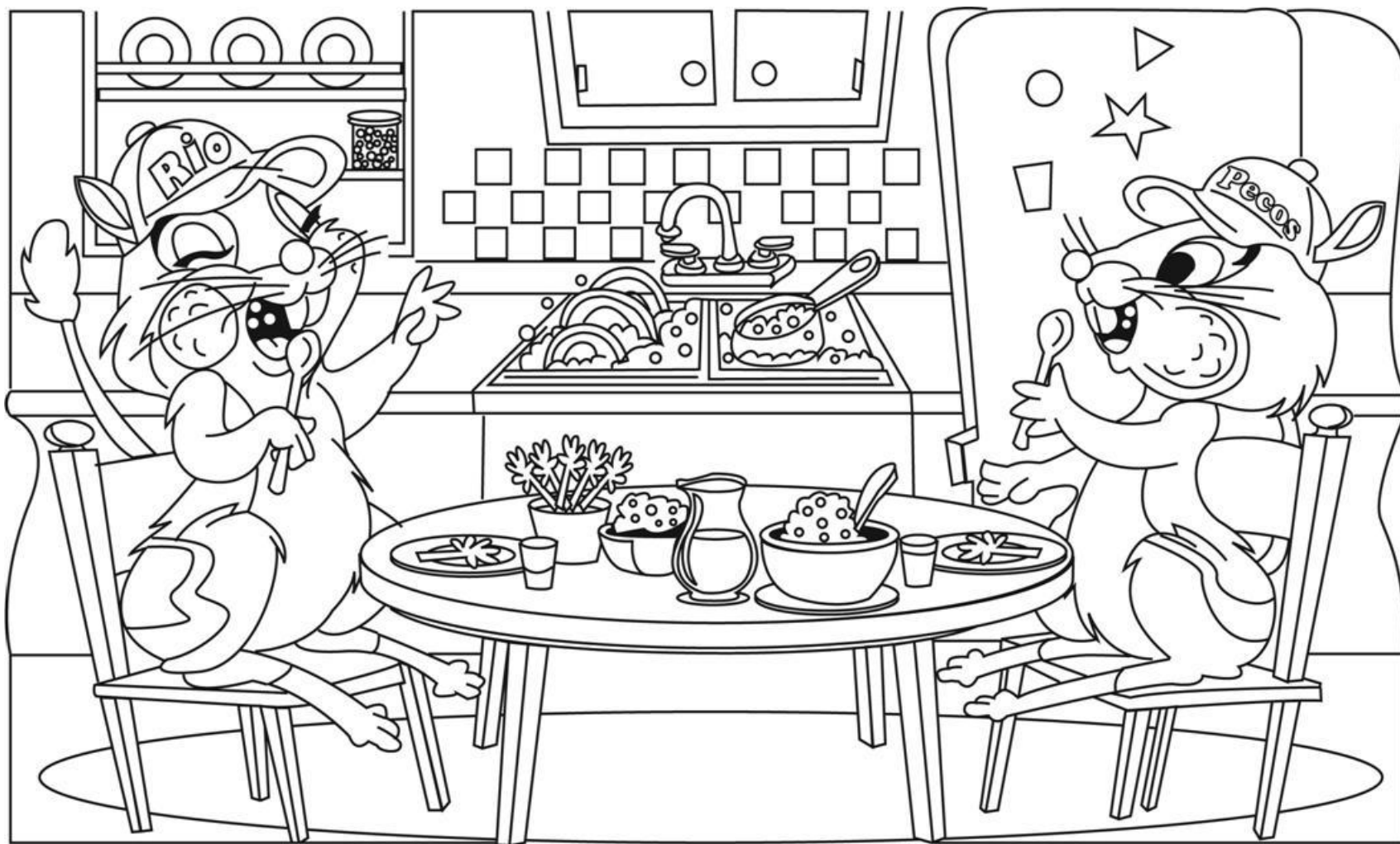
“That’s right! But many of our friends get their water from the pond or the river,” explained Rio. “You see, water above the ground and water below the ground are almost always connected. The two are related. So when we pump water from the ground, it could cause the pond to get smaller, especially when it hasn’t rained or snowed in a long time,” he continued.

Pecos didn’t know that!

“So if everyone does a good job of saving water and sharing water, it might help the pond come back,” added Rio.

This was exciting news to Pecos!

The brothers stuffed their cheek pouches with snacks. Pecos led the way as they crawled out of their burrow. A few clouds now covered the moon. It was time to gather food. Pecos wondered about water above the ground. He wondered about water below the ground. He looked over at Rio and whispered, “They are related. Just like two brothers!”



They are related. Just like two brothers!

Story questions from Pecos!

On Page 4, there are clues that some of the pond water went into the ground. What is one of the clues? Circle the best answer.

- A. green leaves
- B. dead plants
- C. tracks in the mud

On Page 8, Pecos noticed a big bite out of the prickly pear cactus. What animal probably did this? Circle the best answer.

- A. fish
- B. frog
- C. rabbit



On Page 12, Pecos says that their water is pumped from the ground using a well. Where do many of their friends get their water? Circle the best answer.

- A. a well
- B. the pond or the river
- C. the mountains

Story questions from Rio!

What is the main idea of this story? Circle the best answer.

- A. Kangaroo rats live in the desert.
- B. If everyone does a good job of saving water and sharing water, it might help the pond come back.
- C. Pecos has a big brother.

What is an important story detail? Circle the best answer.

- A. Pecos spills water in the bathroom.
- B. Pecos and Rio live in a burrow.
- C. Rio teaches Pecos about the water cycle.

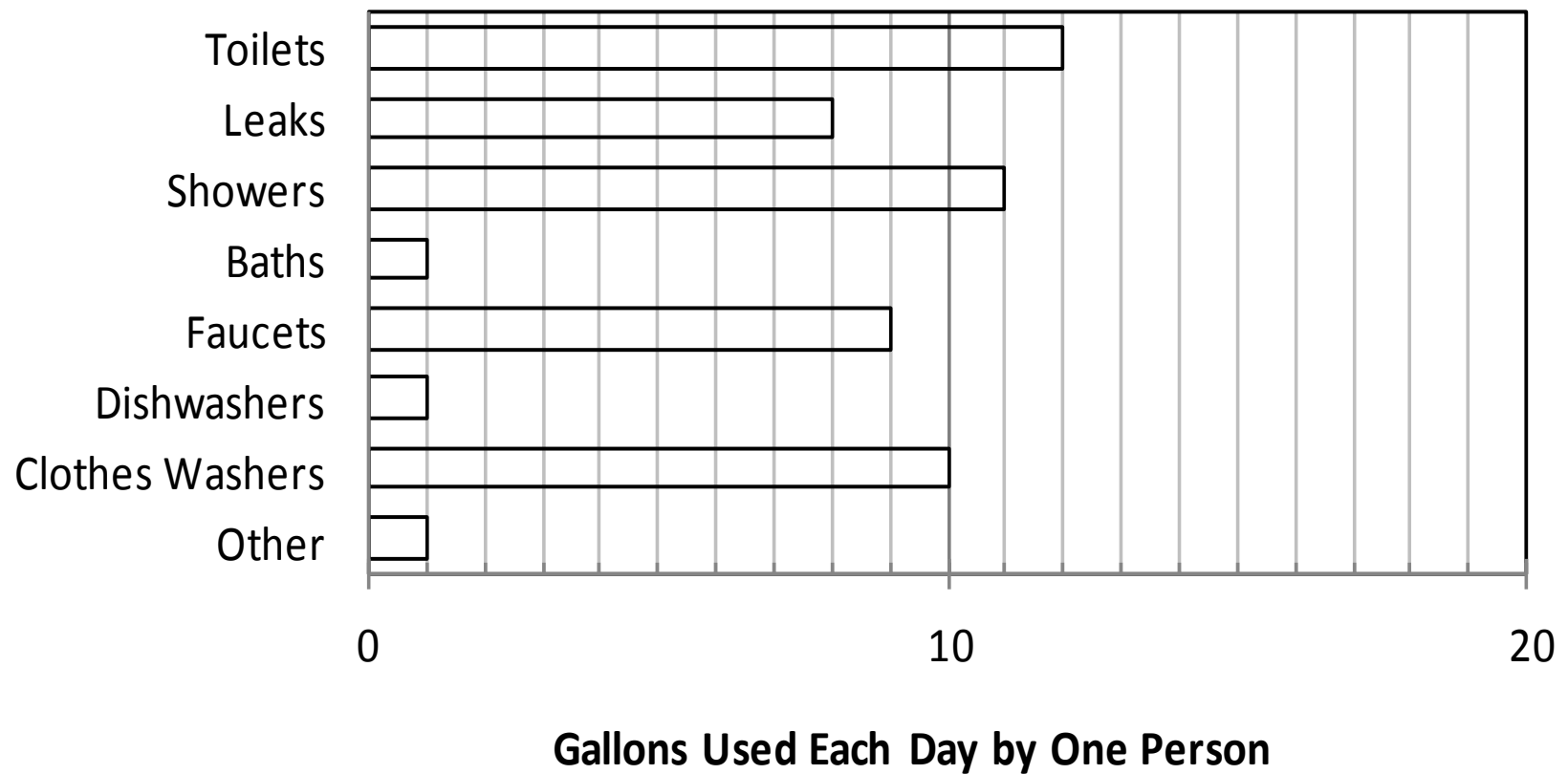
Rio says that water above the ground and water below the ground are almost always connected. What does this mean? Circle the best answer.

- A. The two are related.
- B. The two are not related.
- C. All well pumping is bad.

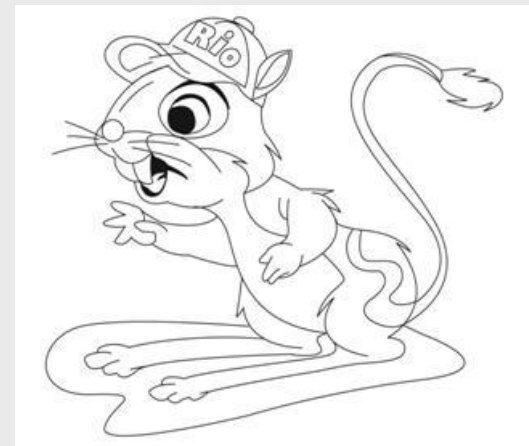


Help Rio use math to answer his water questions.

Ways We Use Water Indoors



1. The name of this bar graph is _____.
2. This bar graph shows eight categories. Color each bar. Use a different color for each bar.
3. The most water used indoors comes from _____.
4. The water used for baths plus the water used for showers equals _____ gallons each day.
5. The water used for dishwashers plus the water used for clothes washers equals _____ gallons per day.
6. Leaks waste _____ gallons of water per day.
Most leaks come from toilets, faucets and showerheads.
That's a lot of wasted water!
7. The total water used each day equals _____ gallons.
That's for only one person!



Pecos has learned that it is important to share water and not waste it. He has learned to conserve water.

Help Pecos think of ways to conserve water indoors and outdoors.

When you conserve water, you are protecting it!



Indoors....

1. Take a short shower.

2.

3.

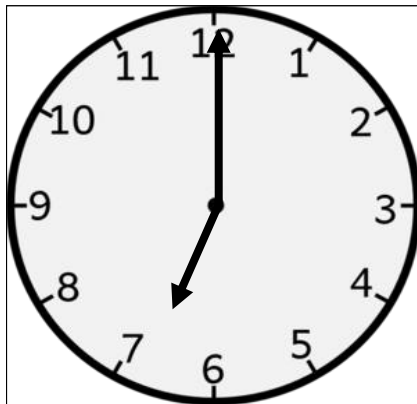
Outdoors....

1. Collect rain water in a rain barrel to use on plants.

2.

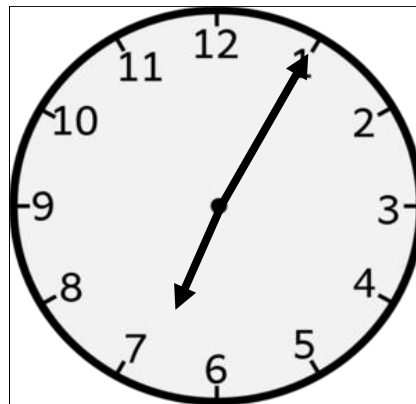
3.

Which brother is conserving more water? Circle his name.



Pecos starts his morning shower.

It is ____:____ am.

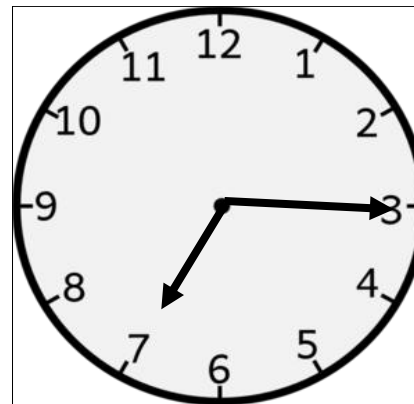


Pecos ends his morning shower.

It is ____:____ am.

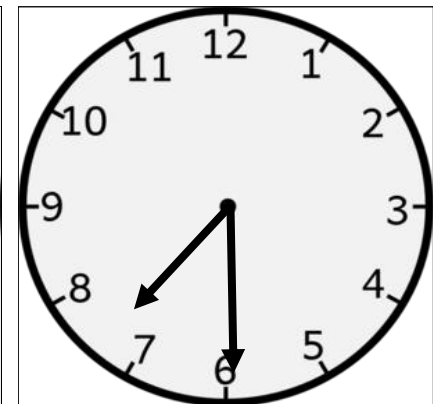
Total time Pecos is in the shower =

_____ minutes.



Rio starts his morning shower.

It is ____:____ am.



Rio ends his morning shower.

It is ____:____ am.

Total time Rio is in the shower =

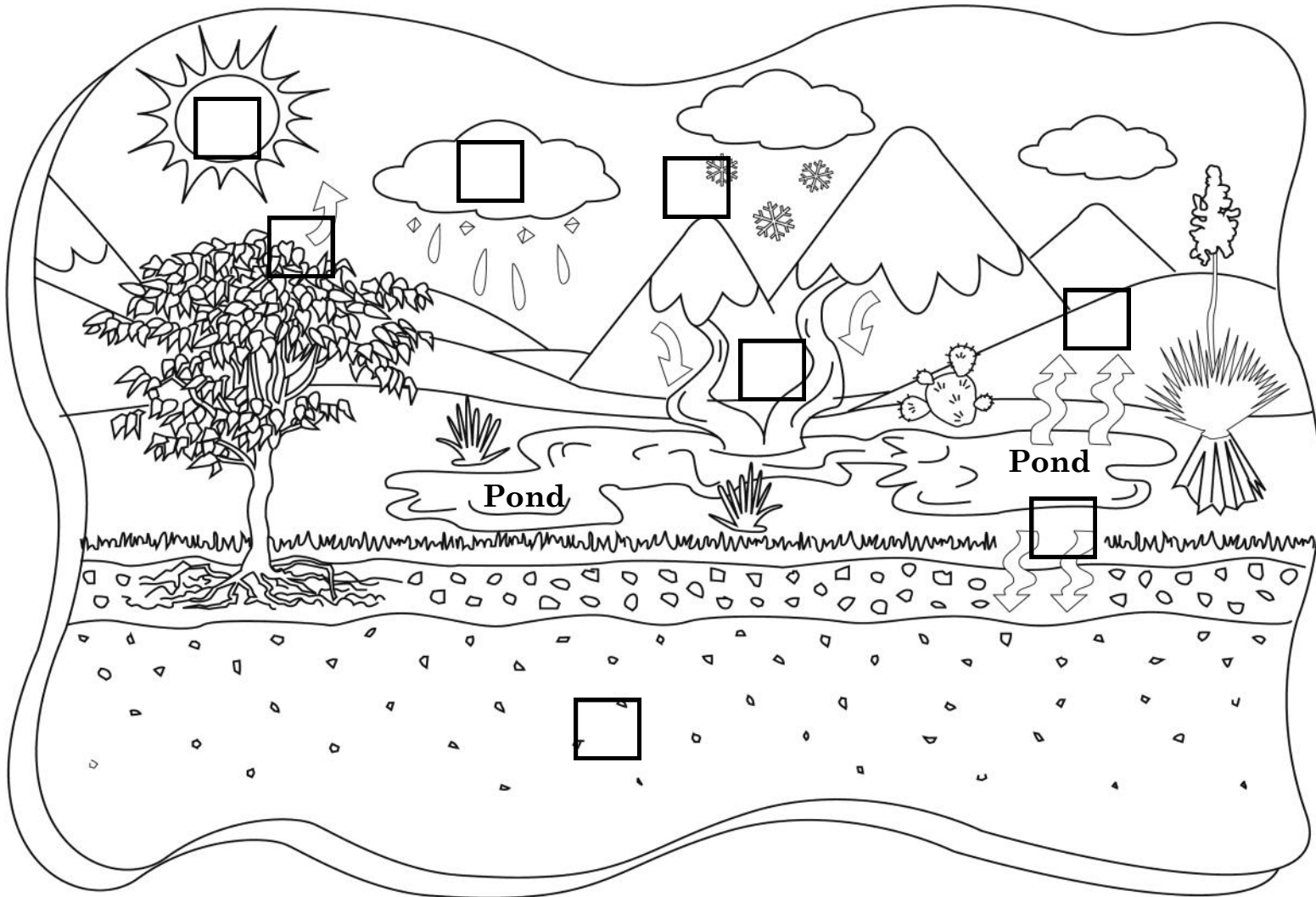
_____ minutes.

Pecos?

or

Rio?

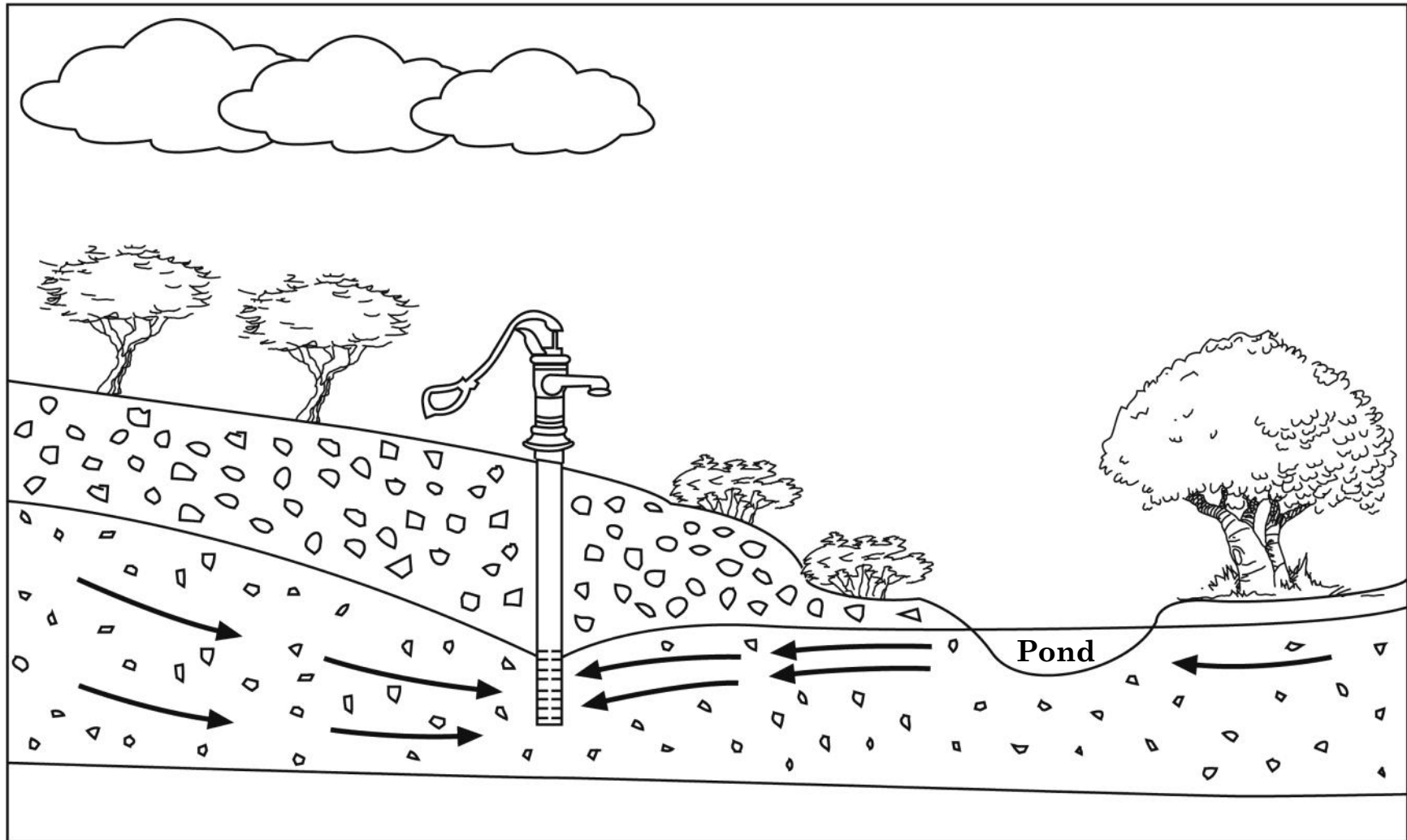
Use information in the KEY to help Rio explain to Pecos what happens during the water cycle. Which number goes in each box?



KEY

1. **Sun:** My energy can heat water and make it evaporate. This makes the water cycle go!
2. **Evaporation:** I am water that is changing from a liquid to a gas. I am becoming water vapor. I am now invisible! Find the arrows above the pond.
3. **Transpiration:** I am water that is moving from a plant into the air. Inside the plant, I am a liquid. As I move from the leaf to the air, I am becoming water vapor. Moving this way helps the plant grow and stay cool. Find the arrow above the tree.
4. **Condensation:** I am water vapor that is rising through the air. The higher I go, the colder the air becomes. Some water vapor is turning into tiny water drops. I am changing from a gas to a liquid. I am now a cloud!
5. **Precipitation:** Tiny water drops inside the clouds are growing big and heavy. I am now falling from the clouds as rain, snow, sleet or hail. Where will I land?
6. **Surface runoff:** After landing on the earth's surface, I am not able to soak in. Instead, I am traveling downhill and filling up ponds, lakes, rivers and oceans. Find the arrows on the mountains.
7. **Infiltration:** I am water that is soaking into the soil. I soak in lots of places, but a favorite place is beneath a pond, lake or river. Find the arrows under the pond.
8. **Groundwater:** I am water that has traveled deep into the ground. I am now part of the aquifer. Pumping a well can bring me back up to the earth's surface.

Use information in the KEY to find out what happens when we pump the well to get water.



KEY

- **Precipitation:** I am rain, snow, sleet or hail. Draw me falling from the clouds toward the ground.
- **Infiltration:** I am water that is soaking into the soil. I soak in lots of places, but a favorite place is beneath the pond. Draw arrows showing where I might soak in.
- **Water table:** I am where the aquifer begins. The spaces above me have some groundwater but not very much. The spaces below me are completely filled with groundwater. Trace this line.
- **Groundwater:** I am water that has traveled deep into the ground. I am now part of the aquifer. When you pump the well, it makes me move toward the well. Color this area purple. Now color the pond blue.
- **Well:** I help get water out of the aquifer. I am like a straw. Color me red.
- **Confining layer:** I am a layer of rocks and soil that is very deep underground. I do not let much water get through. I am where the aquifer ends. Color this area brown.

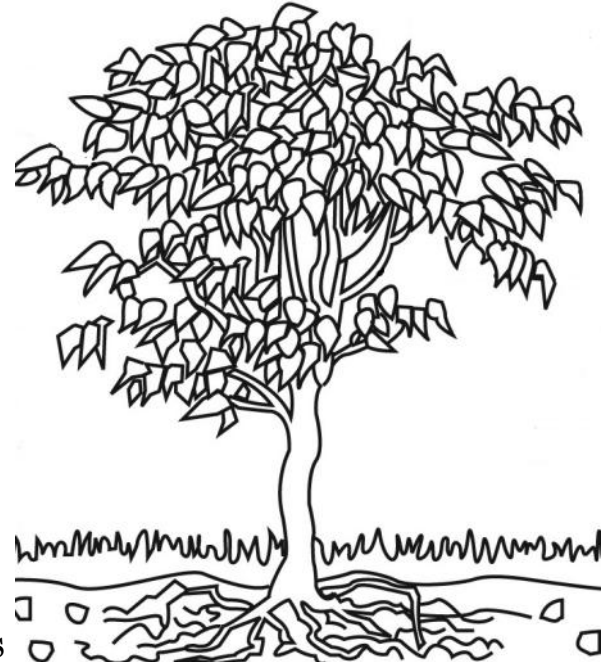
What do you know about conserving water?

What I already knew	What I learned from this book	What I want to know (my questions)

I spy with my little eye...

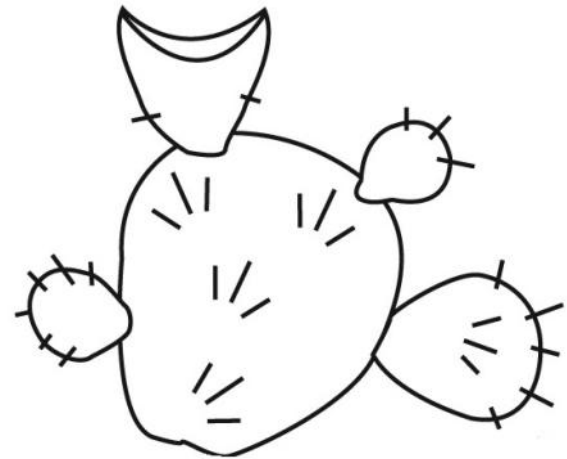
...something tall: a cottonwood tree!

Can you find any cottonwood trees in this book? Hint: look on pages 5, 20 and 22. In New Mexico, this tree lives close to a stream, pond, lake or river. The cottonwood tree grows tall and provides shade for many animals. Each spring, its white cottony seeds seem to float everywhere! Each fall, its green leaves turn bright yellow before falling to the ground.

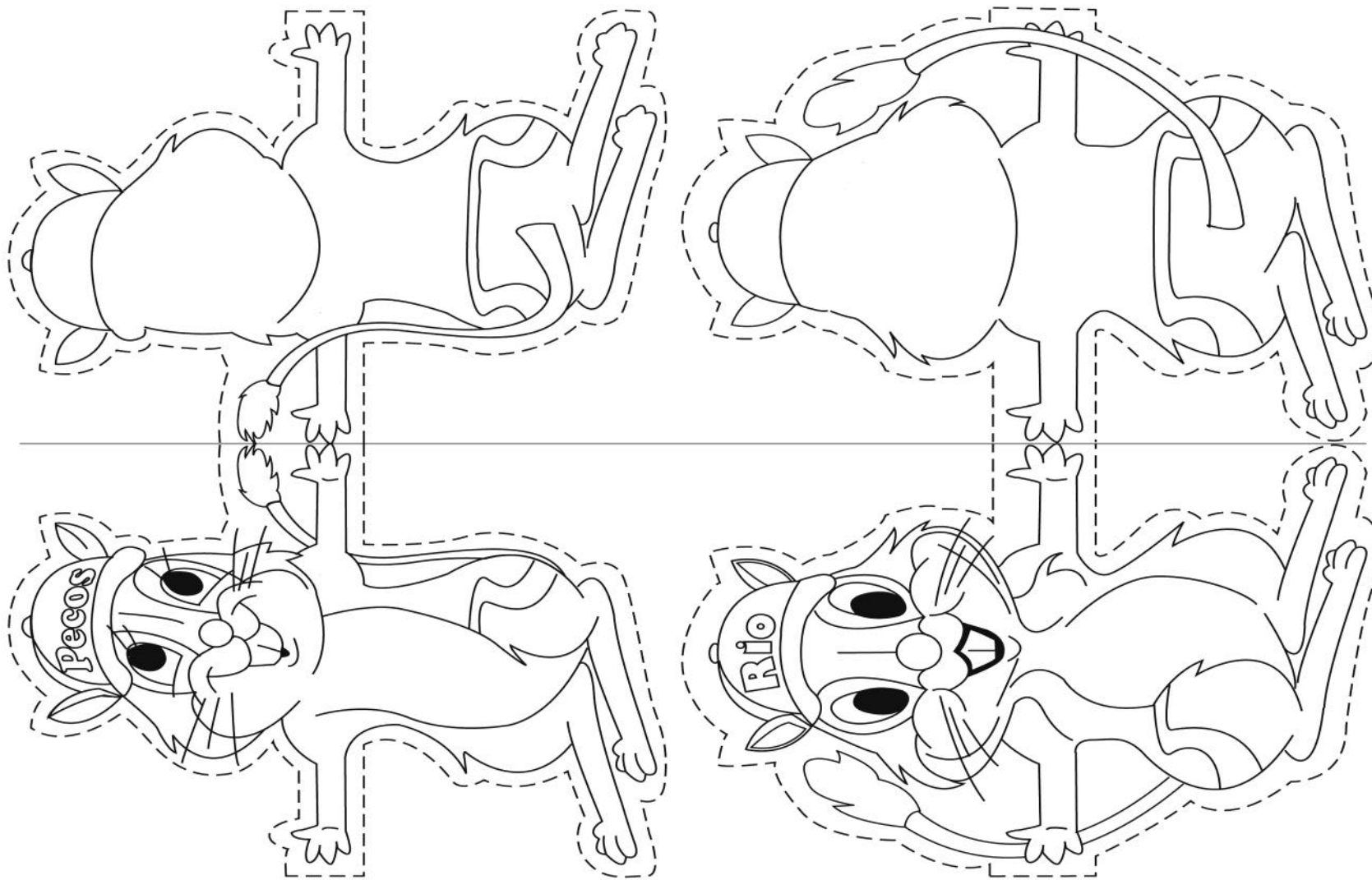


...something small: a prickly pear cactus!

How many prickly pear cactus plants can you find in this book? Hint: look on pages 3, 5, 7, 9 and 20. In New Mexico, this plant lives nearly everywhere — but not where it's really cold! Each spring, it has yellow, red or purple flowers. Even though it has sharp spines, many animals eat its reddish-purple fruit and flat green pads when they are hungry or thirsty. Some animals take shelter in its shade.



Make Kangaroo Rat Finger Puppets! Color Pecos and Rio, then cut them out along the dotted outline. Fold along the middle line to form a front and a back. Staple or tape along the edge (but not their feet area) to enclose the shape.



More about this book

Set in New Mexico's high desert ecosystem, *Pecos and the Missing Pond* introduces key concepts in water conservation while helping young learners build reading fluency and science vocabulary. The story and activities engage readers by exploring connections, interdependent relationships, uncertainty, problem solving, and the power of individual and collective action.

Communities in New Mexico and around the world recognize that a secure water future begins with understanding and planning for this limited and precious resource. This is why people of all ages must learn where their water comes from, where their water goes, and to do what they can to protect it for all who depend on it.

ANSWER KEY

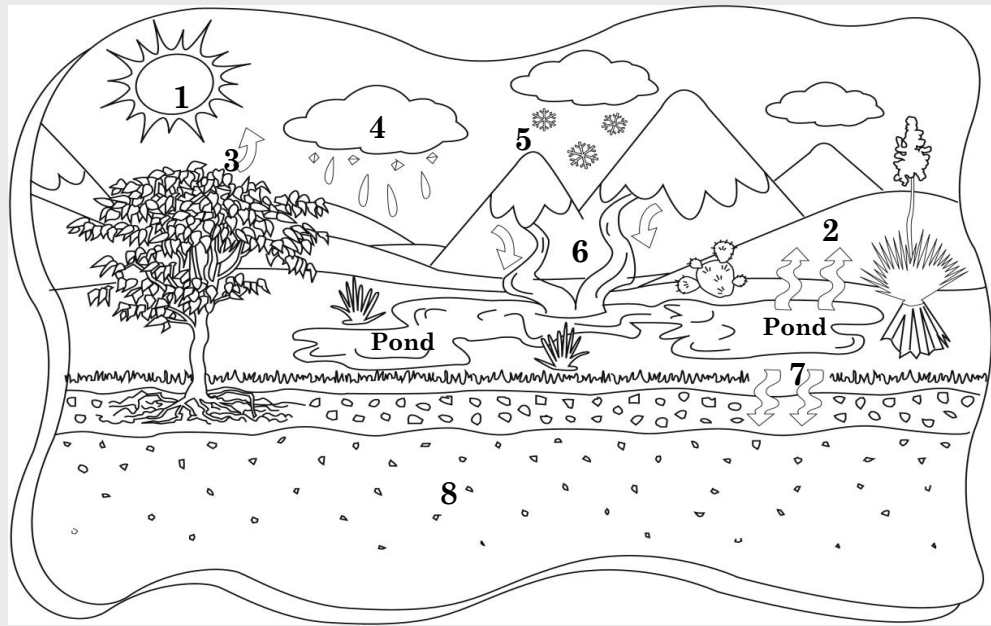
Page 14: A, C, B

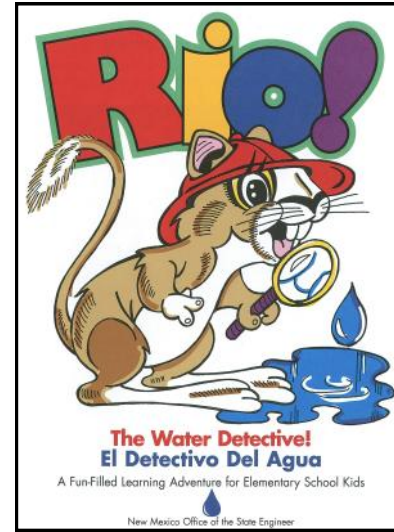
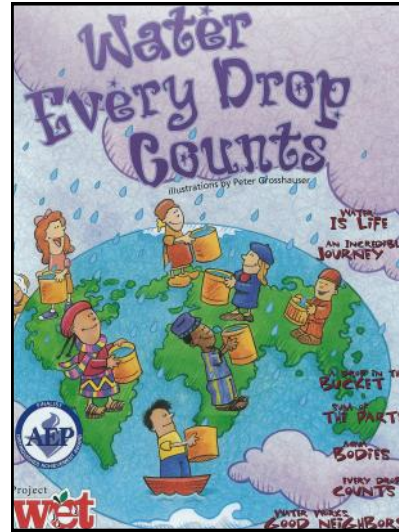
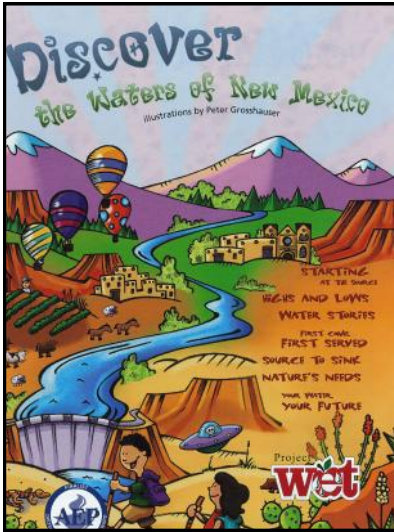
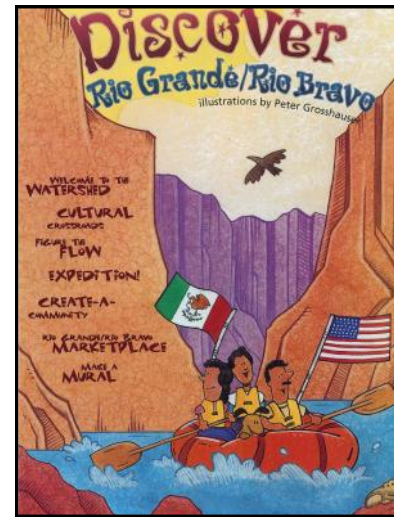
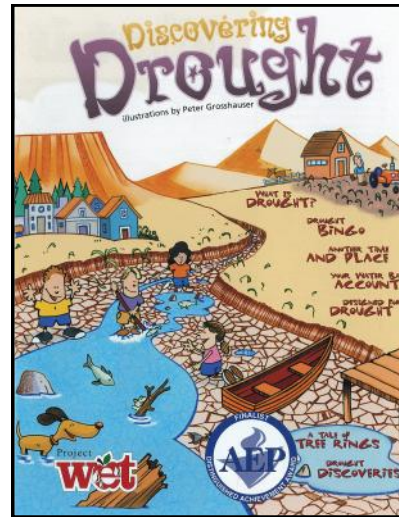
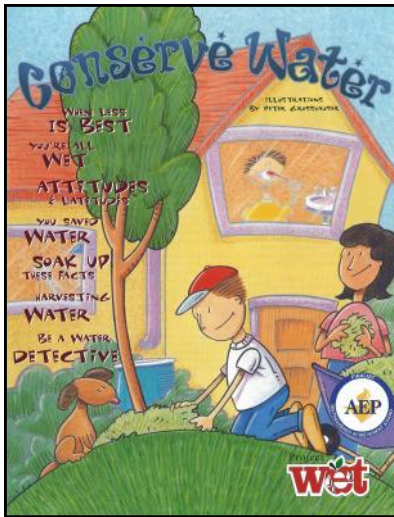
Page 15: B, C, A

Page 17: 1) Ways We Use Water Indoors; 3) toilets; 4) 12; 5) 11; 6) 8; 7) 53

Page 19: Pecos

Pages 20 & 21: see the water cycle drawing (to the right)





- All education materials are free of charge!
- Visit our website to order or download *Pecos and the Missing Pond!*
- Available in English and Spanish!
- Use water as a theme to teach a wide range of curriculum standards and benchmarks!



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