WATERDROPS

Ponds

Water Drips & Drops

Did you know that Florida's ponds attract many living things? More than 100 species of mammals, birds, reptiles, amphibians and fish can be found in ponds throughout the state. It's awesome!

Hello Readers!

This issue of *WaterDrops* is on the subject of ponds. Most of us in Florida live near a pond or have seen one recently. Some ponds are created by the forces of nature, while others are made by humans. A pond is a body of fresh water, smaller than a lake, and completely surrounded by land. Ponds are shallow enough for light to filter through. Many times plants grow all the way across a shallow pond. These plants help clean the water by filtering pollutants and sediments from the water. Ponds can also help prevent areas from flooding by holding floodwaters. A healthy pond often attracts a variety of plants, trees, birds, fish, mammals and other wildlife. The pond environment, with its plants and animals, makes up a special ecosystem.

To help you learn more about ponds, we have included a feature story, articles, activities and games. When you finish this issue, we hope you will have a better understanding of ponds and their need for protection. In other issues of *WaterDrops*, you can learn more about how important water is to us.

Southwest Florida Water Management District

Happy Splashing!

- Water Drips & Drops
- Feature Story
- Take It Home
- Water Cycle Wanda
- Water in Our World
- Games & Puzzles
- Take Action!

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A PICNIC AT OUR POND

One Saturday morning, Chakara and a few friends sat watching TV.

"Aren't there any good shows to watch?" asked Ted. "This is boring."

Just then Chakara's mother entered the room and turned off the TV. "You kids shouldn't be watching TV when it is so beautiful outside. Let's pack a picnic and go to the pond across the street. We haven't explored the area in weeks. Maybe the sandhill cranes will be there."

"It sounds kind of boring," said Ted.

"Oh, you'd be surprised, Ted," said Mrs. Johnson. "A pond can be a very interesting place."

By noon, Mrs. Johnson was leading Chakara and her friends across the street toward the pond. They set their backpacks and food on a picnic table under a tree and walked down to the water.

"Look at all those bugs sitting on the surface of the water," said Ted. As Ted watched, a frog moved quickly to snatch up a few bugs. Ted exclaimed, "Wow! What kind of frog was that?"

"I'm not sure, Ted," said Chakara. "Maybe we can look it up in a book I have on frogs."

"Oh, look over there," said Debbie, as she saw a huge fish swim near the bottom of the pond, which was clear enough to see many fish and a few turtles.

"We're very lucky to have such a healthy pond," said Mrs. Johnson. "A few years ago this pond looked awful and didn't attract much wildlife. Fortunately, the neighbors got together and decided to make some improvements."

"What did you do?" asked Ted.

"First, we picked up all the litter and trash in the area. Then we planted several native aquatic plants to help improve the water quality. We also agreed to use fewer pesticides, fertilizers and herbicides on our lawns and gardens," said Mrs. Johnson.

"What difference would that make?" asked Ted.

"During a rainfall, chemicals and other pollutants mix in with storm water as it flows toward the pond. Stormwater runoff is usually filled with all kinds of pollutants that can cause damage to a pond and other bodies of water."

Debbie walked around the entire edge of the pond. While walking, she observed

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several turtles, frogs, toads, dragonflies and ducks. "This place is filled with all kinds of creatures," said Debbie when she returned to the group.

"And those are just the creatures that you can see," said Chakara. "Think about all the smaller pond creatures that you can't see unless you use a magnifying glass."

Ted noticed a pattern formed by the plants and asked, "Why are most of the plants growing near the edge of the pond?"

"They are attracted to the shallow areas of a pond called the *littoral zone*," answered Mrs. Johnson, and added, "These areas have enough light reaching the bottom of the pond and the roots of the plants, allowing the plants to grow. Aquatic plants help filter pollutants from the water," explained Mrs. Johnson.

Just then, an unusually loud, rattling kar-r-r-o-o-o sound could be heard, which signaled the approach of Chakara's favorite birds. Four sandhill cranes landed nearby and began pecking the ground for worms and bugs.

"Look, Mom. It looks like they have a couple of their kids with them," said Chakara.

"It sure does," responded Mrs. Johnson. "We have been away from the pond too long. We need to visit more often."
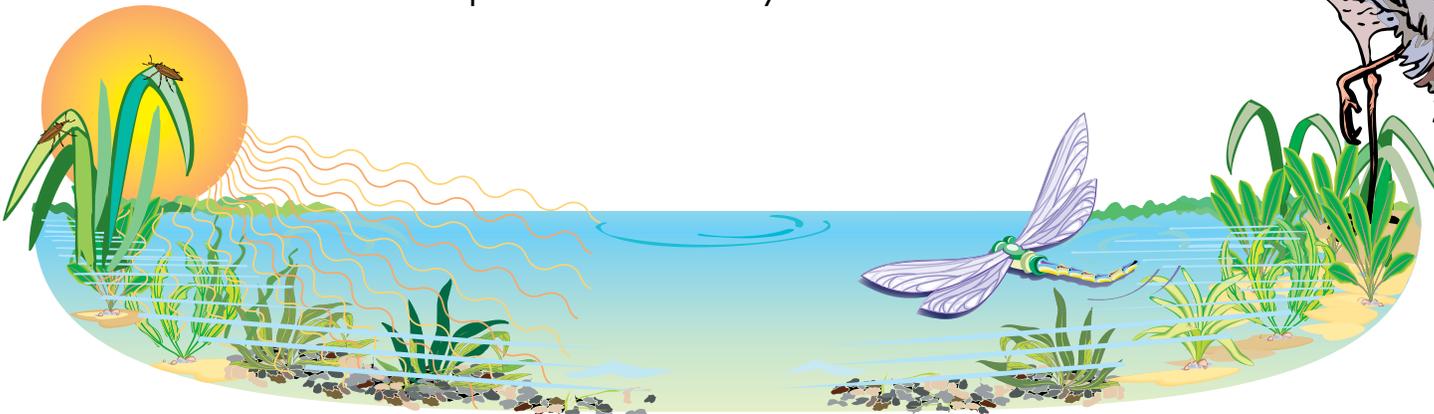
"Can I come with you the next time?" asked Ted. "It wasn't boring at all."

Mrs. Johnson smiled at Ted and said, "Maybe next time we can collect a few water samples and use a microscope to study more about pond life."

"That's cool," said Ted.
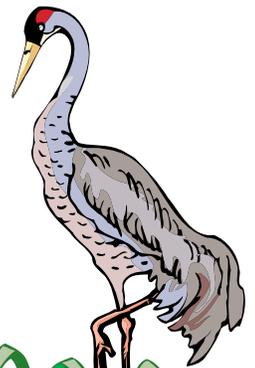
Think about a pond that is close to your home. Describe the

condition of the pond and list the plants and animals that you would expect to find there.

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TESTING SURFACE WATER

The surface water of a pond is different from the water below a pond's surface. Water molecules on the surface bond together to form a film called *surface tension*. The filmy surface creates an ideal hunting ground for bugs, beetles and other insects to catch each other. The insects resting on the filmy surface may also become food for other animals, such as fish and birds, that may snatch them up. To help you understand what the filmy surface of a pond is like, try this easy experiment. You may even catch a bug or two!
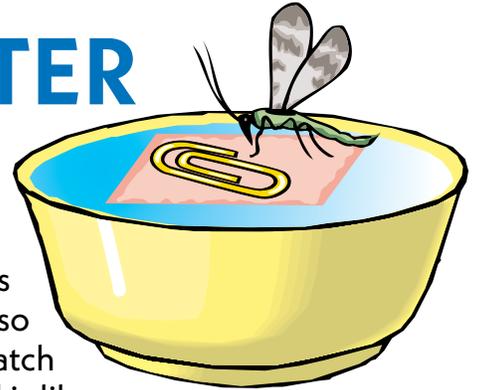
Materials:
- ruler
- water
- small bowl or container
- metal paper clip
- scissors
- measuring cup
- small piece of construction, scrapbook or blotter paper

Directions:
1. Cut a piece of paper that measures 2" by 2".
2. Fill a small bowl or container with 6 ounces of water.
3. Set the paper clip on top of the piece of paper.
4. Gently lay the paper on the surface of the water.
5. Take notes on what you observed in this experiment.
6. Then answer the questions below.

Questions:
1. How long did it take for the paper to become soggy and sink?
2. What happened to the paper clip when the paper began to sink?
3. What insects might be found on the surface of a pond?
4. How could surface tension of the water help wildlife of a pond?

Ask Water Cycle Wanda

Carlos asks: How are lakes and ponds alike and how are they different?

Water Cycle Wanda: Lakes and ponds are water bodies that are completely surrounded by land. A pond is a small, shallow body of water where light can often reach its bottom. A lake is usually larger and deeper than a pond.

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TAKING CARE OF YOUR POND

You have learned how ponds can help improve the quality of water. They can also help prevent areas from flooding. There are several ways for you to do your part to make your neighborhood pond a healthy and attractive environment for everyone to enjoy.

Remember that storm drains should be used only for rainwater. Leaves, motor oil or other materials should not be placed in storm drains.

Try to avoid using a lot of pesticides, insecticides or fertilizers outdoors. These materials can damage a pond and hurt wildlife. If your parents use these materials, tell them to follow the directions on the packages.

Don't contaminate your pond with grass clippings, trash or animal droppings. Instead, place these materials in a trash can where they belong. Grass clippings and other yard waste can also be composted.

Share your knowledge about ponds with other people in your neighborhood. When your neighbors learn more about the importance of ponds, they will want to protect them too.
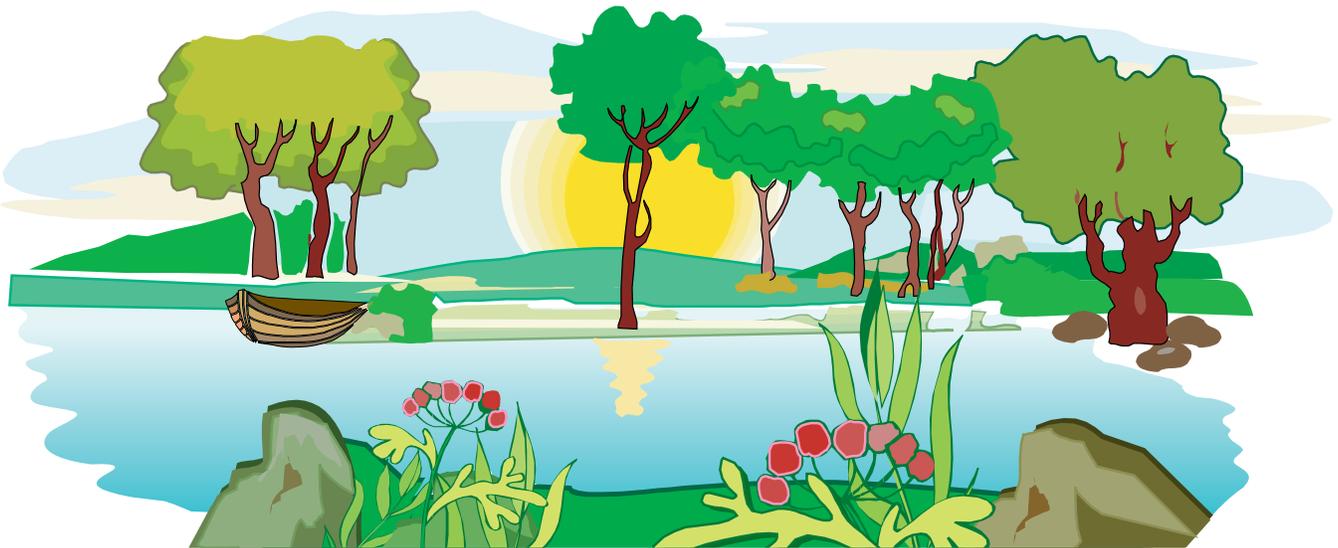
Pond Quiz

Write the word **True** or **False** next to each sentence below.

____ Using a lot of fertilizers on outdoor lawns and gardens can damage ponds.

____ After mowing a lawn, the grass clippings should be swept into a stormwater drain.

____ Ponds can help prevent areas from flooding and improve water quality.

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Water in Our World

BECOME A POND MANAGER

Taking good care of our ponds depends on all of us. Read about three neighbors who need some advice about making their pond a better place. Help them become better citizens by giving them each a suggestion. You may want to use the information about ponds from page 5.

The trees in Randy's yard shed their leaves every fall. It is Randy's job to rake up all the leaves. Instead of placing them in a leaf bag, Randy rakes them into the street so they will go down the storm drain. Randy thinks this is an easier way to dispose of the leaves and that no harm will be done.

Janet has a cute little dog named Lucky. After Lucky finishes eating, Janet takes him out to the front yard so he can do his "business." She never uses a scooper to pick up the waste material. She thinks it is good for rainwater to soak animal waste into the ground.

Every few months, Mr. Sanchez changes the oil in his car. After he finishes the job, he usually pours the old motor oil down the stormwater drain. He thinks that the oil flowing through the drainage system won't hurt the environment.

Suggestion: _____

_____

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Suggestion: _____

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Suggestion: _____

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For an additional activity, give an example of another neighbor who needs advice about protecting a community pond. Ask a classmate to give a suggestion to help the neighbor.
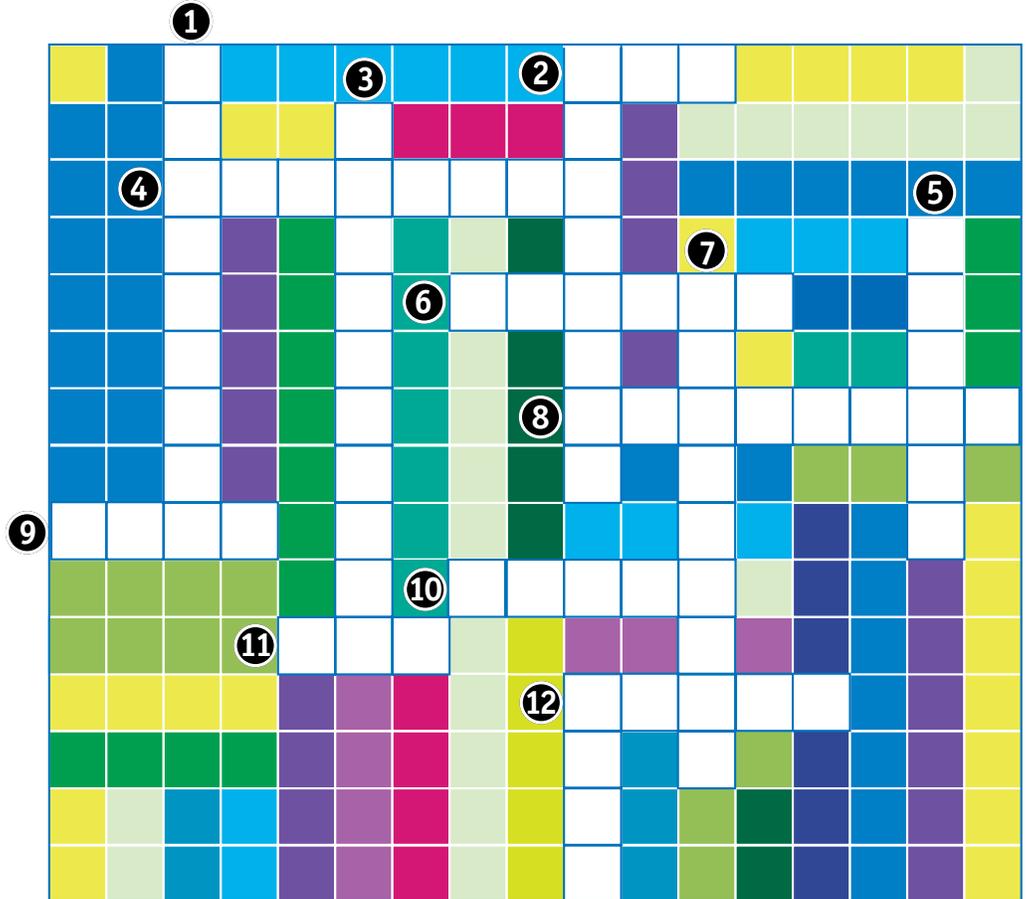
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PONDS CROSSWORD PUZZLE

Use the clues and the word bank to complete the puzzle.

Pond Word Bank
- pollution
- lakes
- littoral
- pond
- wildlife
- ecosystem
- stormwater
- plants
- fresh
- dry
- frog
- wet
- filter
- flooding

Across
2. The opposite of dry is ____.
4. The ____ area of a pond is where plants often grow.
6. Ponds can ____ sediments and pollutants from the water.
8. Ponds help prevent areas from ____.
9. A ____ is usually smaller and not as deep as a lake.
10. Large, deep water bodies surrounded by land are called ____.
11. The opposite of wet is ____.
12. Water that does not contain salt is called ____ water.

Down
1. Material that harms the environment is called ____.
2. Healthy ponds attract a variety of ____.
3. ____ runoff is usually filled with pollutants that can cause damage to a pond.
5. Several varieties of ____ grow along the edges of a pond.
7. A community of living things and their environment is called an ____.
12. A ____ is an animal often found at a pond.

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Taking Action!

MY NEIGHBORHOOD POND

List four ways your neighbors can help keep ponds healthy and attractive.

1. _____

2. _____

3. _____

4. _____

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Southwest Florida
Water Management District

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