Hello Readers!

This issue of WaterDrops brings you information about water as a resource. What is a resource, you ask? It’s something for us to use. Water is one of our most important resources. Water exists in a variety of places. We can find fresh water under the ground in places called aquifers and on the earth’s surface in lakes, rivers and oceans. We can see it falling from the sky as rain. Nearby, we can find salt water in the Gulf of Mexico!

All of the water on the earth is part of a wonderful system in nature called the water cycle. After you complete this issue, you will know a lot more about the water cycle. Don’t forget to send in the activity on the back page for a free poster!

Happy Splashing!

Did you know that there is about the same amount of water on the earth today as there was 3 billion years ago? Do you know why?

Splash! is a program available from the Southwest Florida Water Management District. Splash! helps us learn about our water resources. Let’s help protect our water supply now and in the future.
This week at school, Kim’s class is learning about the water cycle. The students had just finished watching a video on the story of water. They learned that water moves itself in a never-ending cycle.

“What did you like best about the video?” asked the teacher.

“I liked the part that showed a time line with dinosaurs drinking water, and then pioneers drinking the same water, and finally children of today drinking the EXACT same water,” said Kim.

“I never knew that!” exclaimed Tomika.

“I guess that means that in 100 years, people will be drinking the same water,” said Rick.

“We have the same amount of water on the earth’s surface that we’ve always had. I think that’s cool!” said Rick.

The class continued the discussion about water. “Did you know that the water cycle is also called the hydrologic cycle?” asked the teacher. “I think water cycle is easier to remember than hydrologic cycle,” said Kim.

“What’s important is that we all understand the different parts that make up the cycle,” said the teacher. “Let’s imagine that each one of us is a water droplet. How would you describe your trip through the water cycle? You may begin your journey anywhere in the cycle.”
The students thought for a few minutes. “I think I would begin as a little droplet in the clouds. Gradually, I would become so heavy that I would drop from the clouds and fall to the ground,” said Rick.

“I would begin my trip beneath the surface of the ground,” said Kim. “I would percolate through the soil and sink way down into the Floridan aquifer. Someone would have to pump me out of the ground through a well.”

“We have time for just one more idea,” said the teacher. Rosa raised her hand. Then she told the class, “My trip would begin far out in the ocean. I would roll along with the waves. Then I would evaporate up into the air and ride on the wing of an airplane. It would feel great!”

“These are wonderful beginnings for your water story,” said the teacher. “Now write your story on paper.”

Three students told about how they would begin their stories. Select one of these beginnings, or make up your own. Continue your story about the travels of a water droplet through time and space. Be creative!

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Sherita asks: My teacher says that trees give off water! Is this true?

Water Cycle Wanda:

Yes! Trees are an important part of the water cycle. They draw water up through their roots and use it to manufacture food. As they do this, they release oxygen and hydrogen through tiny holes in their leaves. This produces water in the form of gas. This process is called transpiration. Have you ever noticed that you feel cooler when you walk through the woods? The shade cools us from the sun’s heat. The moisture given off by the trees acts like a giant air conditioner that cools the surrounding air.

CREATE A WATER CYCLE AT HOME!

Here is an easy experiment you can do at home.

Materials:
- glass jar with lid
- small stones
- soil
- bottle cap
- sand
- a few small plants

Directions:
1. Find a clean jar that has a wide top. An applesauce or a pickle jar works well for this project.
2. Place a layer of small stones in the bottom of the jar and then cover the stones with sand.
3. Fill the jar with soil until it’s about half full. Place a few small plants in the soil.
4. Fill a soda bottle cap or other small container with water. Place the container next to the plants on top of the soil.
5. Place the jar lid on top and twist it as tightly as you can. Place your jar in a sunny place for a few days.

You have created a miniature water cycle! Take notes on what you observe about the moisture in the jar. Share your findings with the class.

Please send questions to Water Cycle Wanda (c/o CHEC, P.O. Box 2494, Port Charlotte, Florida 33949), or on the Internet at chec@sunline.net. All questions will be answered. Yours may be included in Water Drops!
As you learned earlier in this issue, the hydrologic cycle is also called the water cycle. Read the list of terms and definitions below. Use the terms to label each part of the hydrologic cycle.

**sun**
- provides energy for the never-ending cycle

**evaporation**
- vapor created when the sun heats water in lakes, streams, rivers or oceans

**transpiration**
- vapor created when plants and trees give off moisture

**condensation**
- tiny droplets of water formed when water vapor rises into the air and cools

**precipitation**
- moisture released from clouds in the form of rain, snow, hail, etc.

**percolation**
- movement of the water through the ground
Have you ever noticed a steamy bathroom mirror or window in your home? This is an example of an important part of the water cycle called condensation. Water vapor is a gas when it’s in the air. The water vapor cools when it comes in contact with a cool surface such as the glass in a window. As the water vapor cools, it changes from a gas to a liquid. Tiny water droplets begin to form on the glass. As the droplets become heavier and heavier, they run down the glass. Something similar happens to water vapor in clouds. These droplets collect together in the clouds and grow heavier and heavier. When the droplets become too heavy to stay up in the clouds any longer, they fall as rain!

**Fill-in-the-blank**

*Complete each sentence by writing in the correct word.*

- When water droplets become too heavy to stay in the clouds, it _______.
- Water changes from a gas to liquid when it ____________________.
- Condensation is an important part of the ________________ cycle.
Use the clues and the word bank to complete the puzzle.

**ACROSS**
1. Moisture falling from the clouds is called ____.
7. Snow, hail and ____ are forms of precipitation.
8. A ____ is a small body of water.
10. An underground layer of limestone full of holes that water flows through is called an ____.
11. A solid form of water is called ____.

**DOWN**
1. Downward movement of water through the ground is called ____.
2. Tiny droplets of water formed when water vapor cools is called ____.
3. ____ is the vapor created when the sun heats water in lakes, streams, rivers or oceans.
4. Vapor created when plants and trees give off moisture is called ____.
5. People, plants and animals need ____ to live.
6. The ____ provides energy for the never-ending water cycle.
9. A ____ is a body of water that is surrounded by land.
Naturally, **Bill Nye, the Science Guy**, is simply full of cool information about almost everything! You can check out his great Web site by going to: [http://nyelabs.kcts.org](http://nyelabs.kcts.org).

Click on the Episode Guides to find the topic that interests you. **Episode No. 47** is about the **water cycle**!

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**Find the Hidden Water Message!**

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1 = a  14 = n
2 = b  15 = o
3 = c  16 = p
4 = d  17 = q
5 = e  18 = r
6 = f  19 = s
7 = g  20 = t
8 = h  21 = u
9 = i  22 = v
10 = j  23 = w
11 = k  24 = x
12 = l  25 = y
13 = m  26 = z
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23  5  •  14  5  5  4  •  3  12  5  1  14,  •  6  18  5  19  8
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23  1  20  5  18  •  20  15  •  11  5  5  16  •  21  19
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1  12  9  22  5  •  1  14  4  •  8  5  1  12  20  8  25 .
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Mail your message to us and we will send you a “**Water is Life**” poster!

Name ____________________________________________________________

Address __________________________________________________________

City ____________________________ State_____________ Zip________________________

Phone _______________________________ County _________________________________

School ________________________________ Teacher ______________________Grade ____

Send to: **In-School Education Communications Department**
Southwest Florida **Water Management District**
2379 Broad Street
Brooksville, FL 34609-6899

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