

WATERDROPS

Ground Water Issue

Teacher's Guide

Welcome to the ground water issue of WaterDrops! As part of the Splash! Water Resources Education program, the Southwest Florida Water Management District offers this water resources newsletter for elementary students. The newsletter is correlated to grades 3-5 of the Sunshine State Standards and provides an interesting way for students to increase their awareness and respect for our precious water resources. To better prepare your students for testing, we have included WaterDrops Challenge, which contains items similar to those that may appear on the Florida Comprehensive Assessment Test (FCAT).

This issue of WaterDrops focuses on ground water. It includes fiction, nonfiction, writing, drawing and problem-solving activities, games, and a Web site to explore. All of the information and activities are designed to teach students about ground water. Let WaterDrops make a splash in your classroom today!

Many other free materials are available from the Southwest Florida Water Management District. We also offer water resources workshops for teachers in your county. Please contact us if you have any questions or suggestions about our water resources education programs.

Sincerely,

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For additional background information on ground water, visit the Web site presented on page 8 of the newsletter.

Sunshine State Standards: SC.D.1.2.4, SC.D.1.2.5

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Water Drips & Drops

It's fun to learn facts about our water. Aquifers are mostly limestone. Water moves freely through the holes in this sponge-like rock. Wells are drilled into the aquifer so that pumps can draw the ground water to the surface. Wells, which may exist in different shapes and sizes, supply water to cities, homes, farms, and other locations. Ask students if they are familiar with any aquifers in Florida.

Sunshine State Standards: SC.A.1.2.4, SC.D.1.2.4

Pages 2 & 3

Feature Story

Read the story together. On a map, ask students to locate the land area that covers the Floridan aquifer. Emphasize the facts associated with the Floridan aquifer. Ask students to imagine what it would be like to be inside the aquifer. Be sure to caution the students about the potential dangers of cave diving. Then ask students to complete the writing activity.

Sunshine State Standards: LA.A.2.2.5, LA.B.2.2.3, LA.B.2.2.6, SC.A.1.2.4, SC.D.1.2.4, SC.G.2.2.2, SS.B.1.2.1

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Take It Home

Prepare your students for the activity that they will do at home. You may want to do a demonstration of the experiment in the classroom. Make sure that students have all of the materials for completing the experiment at home. Ask students to read the directions for making a sinkhole and encourage them to try the experiment at home. Ask students to share their notes and draw conclusions about what they learned about sinkholes.

Sunshine State Standards: SC.D.1.2.4, SC.D.1.2.5, SC.H.1.2.5, VA.A.1.2.1

Page 1

Hello Readers!

Ground water lies beneath the surface of the Earth and is an important part of Florida's water supply. Ground water begins as precipitation that gradually soaks into the ground, percolating down into areas called aquifers.

WATERDROPS Challenge

Directions:

Let's see how much you have learned about ground water. Do your best and meet the challenge!

Choose the best answer.

1. Ground water lies almost everywhere beneath the Earth's surface. Most of Florida's drinking water comes from aquifers. What is an aquifer?
 - a. a natural opening in the Earth's surface where water flows
 - b. an underground area of sponge-like rock that holds water
 - c. a lake, river or stream
 - d. a sinkhole
2. All of the following are true statements about the Floridan aquifer EXCEPT one. Which one does not belong in the list?
 - a. It is the largest and deepest aquifer in Florida.
 - b. It contains about 1 quadrillion gallons of fresh water.
 - c. It is made up mostly of lemonstone.
 - d. It stores ground water that is used for drinking water.
3. Materials that are pollutants can cause our ground water to become unhealthy. Which of the following is NOT an example of a pollutant?
 - a. drinking water
 - b. septic tank seepage
 - c. pesticides
 - d. fertilizers
4. A karst landform often has springs and sinkholes. What causes a sinkhole to form?
 - a. Water from abandoned wells seeps into the ground causing a space.
 - b. Stormwater runoff creates an underground space near the bedrock.
 - c. A hole that is drilled into the aquifer causes water to flow out of a natural opening in the Earth's surface.
 - d. Underground bedrock erodes and dissolves from acidic water leaving an underground space.

WATERDROPS Challenge

You have learned that aquifers store our ground water. Describe an aquifer. Use facts that you learned about the Floridan aquifer in your description.

It is very important that we protect the quality of our ground water. List several ways that people can help to keep our ground water pure and healthy.

