

Video Lesson Plan 1C —*Florida’s Aquifers: The Treasure Below* “Water Writing and FCAT”

Subject/Grade Level: Language arts/FCAT writing skills development and practice for grades 6–8

Objective: Students will organize and write an expository essay using information from the video.

Rationale: Students need guided practice through the process of locating and organizing information and then using it to write an essay.

Standards:

- LA.6.4.2.3: The student will write informational/expository essays (e.g., process, description, explanation, comparison/contrast, problem/solution) that include a thesis statement, supporting details, and introductory, body, and concluding paragraphs.
- LA.7.4.2.3: The student will write specialized informational/expository essays (e.g., process, description, explanation, comparison/contrast, and problem/solution) that include a thesis statement, supporting details, an organizational structure particular to its type and introductory, body, and concluding paragraphs.
- LA.8.4.2.3: The student will write specialized informational/expository essays (e.g., process, description, explanation, comparison/contrast, and problem/solution) that include a thesis statement, supporting details, an organizational structure particular to its type and introductory, body, and concluding paragraphs.

Time: 30–40 minutes

Materials:

- *Florida’s Aquifers: The Treasure Below*, video (6 minutes) from the *Your Water Resources* DVD, St. Johns River Water Management District, 2006, or available to download free at www.sjrwmd.com/video/index.html
- DVD player
- Water bottle with a few drops left
- Copies of three-column strategy paper attached

Background/Links:

- Find out more about this comprehension strategy and other learning strategies from the Florida Online Reading Professional Development Resource Database (FOR-PD) at www.forpd.ucf.edu/resources/.
- Find out more about St. Johns River Water Management District and water resources at www.sjrwmd.com.
- Find related water activities, resources, and links for Project Wet at www.sjrwmd.com/education/projectwet.

Lesson Plan

Engage (3 minutes): Show the water bottle. Hold it up, and let the last drops drip out. Ask the students if Florida could run out of drinking water. How could we run out of drinking water if we are surrounded by water? Most of the water we see around us is not drinkable.

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Explore/Explain (30 minutes): Put the following prompt up on the classroom board or overhead so students can see it.

You are a water scientist and are writing a presentation with a handout for a local community group that explains what aquifers are and why we need to conserve water.

Read the prompt together. Explain that they will watch a short video and take notes on the three-column Student Page. They will use their notes to develop their essay for the presentation and handout.

Watch the DVD, and pause the DVD player every few minutes to allow students time to write. Once the video is finished, discuss the meaning of the terms aquifer, recharge, and saltwater intrusion and how each impacts our drinkable water supply. When the students begin writing, walk around and help them, since this is a practice for improving skills.

Extend:

Do one or more of the following activities from the *Project WET Curriculum and Activity Guide*.

- “Every Drop Counts” is an activity that focuses on water conservation and acquiring habits that lead to water conservation. The various options for activities cover the subject areas of fine arts, math, government, and environmental science.
- “Dust Bowls and Failed Levees” is a research and writing activity that focuses on water-related events such as drought and flooding caused by climatic cycles. The activity features *The Grapes of Wrath* to illustrate fictional writing based on water-related disasters.

To inquire about Project WET workshops, contact the education section of St. Johns River Water Management District, www.sjrwmd.com/education.

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TEACHER PAGE

Main ideas or questions	Information, details, and examples that answer the questions or give information about the main ideas	How does this fit in an essay about water conservation?
What is an aquifer?	An aquifer is a layer or layers of rock, shell, and sand in any combination that holds water. The aquifer systems are important because they are the main source of drinking water in north and central Florida.	The majority of our water supply is held in an aquifer.
What is aquifer recharge?	Aquifer recharge occurs when rainfall can soak down through the ground and the aquifer layers to refill the aquifer.	Recharge can only happen in particular areas based on rainfall.
What determines where rainwater will go in the aquifer?	If there is a confining unit or layer, the water cannot soak down into the aquifer. If there is no confining layer, the water can soak down and recharge, or replenish, the amount of water in the aquifer.	Recharge can only happen in particular areas based on rainfall.
What is saltwater intrusion?	When too much freshwater is drawn from the aquifer, salt water is also brought up. It intrudes into the freshwater and contaminates it with salt water.	When we use too much water out of the aquifer, saltwater intrusion is more likely.
How does increasing population and development influence saltwater intrusion?	Building and pavement cover the ground causing rainfall to run off into storm drains, creeks, rivers, and the ocean, reducing how much soaks in the ground for recharge in the aquifer.	The population of Florida is increasing and therefore we must conserve.
Why is conserving water important?	Our water supply is limited. Nearly 90% of residents in north, northeast, and north-central Florida get their drinking water from the aquifer.	We depend on a limited supply of water.

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Instructions to Students:

FCAT Writing Practice (10–15 minutes): You will have 15 minutes to answer the prompt.

You are a water scientist and are writing a presentation with a handout for a local community group that explains what aquifers are and why we need to conserve water.

Use your three-column strategy paper. Plan what you want to say before beginning to write. Organize your thoughts into main ideas and supporting details. Use transition words between main ideas. Then, read the prompt carefully and begin. If you finish early, edit your writing.

Think about this: Water is always available whenever we need or want it. However, since 90% of our drinking water comes from the aquifer and must be replaced by rainfall, we must be careful not to use it faster than it can be replaced.

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STUDENT PAGE

Name: _____ Date: _____

Main ideas or questions	Information, details, and examples that answer the questions or give information about the main ideas	How does this fit in an essay about water conservation?
What is an aquifer?		
What is aquifer recharge?		
What determines where rainwater will go in the aquifer?		
What is saltwater intrusion?		
How does increasing population and development influence saltwater intrusion?		
Why is conserving water important?		