

# Teacher's Guide

## *Video: Springs*

Southwest Florida Water Management District

Grades 6 and 7

This teacher's guide supports the Southwest Florida Water Management District's (SWFWMD) video episode Springs, available at [WaterMatters.org/Education](http://WaterMatters.org/Education). This guide includes Florida standards, vocabulary, suggested activities, and links to additional resources. Students will need a computer and internet access for this lesson.

**Lesson time:** Approximately 1.5 – 2 hours (divide among class periods)

**Objective:** Students will become familiar with springs in west-central Florida. Students will be able to describe what a spring is and why springs are important. Students will conduct research on springs in west-central Florida and create an educational poster or PowerPoint to share their research.

### Vocabulary:

<b>Aquifer:</b>	A spongelike underground layer of limestone or rocks that can hold and release water
<b>First-Magnitude Spring:</b>	A spring with a strong spring flow that discharges 64.6 million gallons of water per day or more
<b>Groundwater:</b>	Water that is stored underground below the earth's surface
<b>Karst Terrain:</b>	A type of landscape where the underground bedrock, such as limestone or dolomite rock, dissolves
<b>Spring:</b>	A natural opening in the ground where water flows directly from the aquifer to the Earth's surface
<b>Springshed:</b>	The area of land that contributes groundwater to a spring
<b>Spring Flow:</b>	The amount of water that discharges from a spring vent

### Lesson

#### Engage:

(15 minutes) Prior to watching the video, pose the following essential question to your students: Why are springs so important?

Watch the video. Review the vocabulary terms and ask aloud the following questions to activate prior knowledge:

- What is a spring?
- What makes Florida the perfect location for springs?
- What is a springshed?
- Why are springs an important natural resource?
- How do we as humans impact our springs? What are some ways we can help to protect them?

## Southwest Florida Water Management District

### Explore/Explain

(60 minutes) Have students work in groups to research a local spring group in west-central Florida. Assign each group of students a different spring group to explore. Possible spring groups might include the five first-magnitude springs within SWFWMD. The five first-magnitude spring groups within SWFWMD are Rainbow, Crystal River/Kings Bay, Homosassa, Chassahowitzka and Weeki Wachee. Ask students to answer the following questions during their research:

- Where is the spring group located? (Find a map to include in the poster/PowerPoint)
- What are some of the common plants and wildlife found in this spring group?
- Does this spring group contribute water to any nearby surface waters?
- What are some of the threats to this spring group?

Using the information from their research, have each group create an educational poster or PowerPoint with visuals and important facts about their spring group.

### Extend:

(30 minutes) Ask each group to present their poster or PowerPoint to the class.

If posters were created, these can be hung around the classroom or in the hallway following the presentations.

### Evaluate:

Review each group's overall presentation to evaluate their knowledge of springs in west-central Florida.

### Additional links:

[WaterMatters.org/Publications](http://WaterMatters.org/Publications)

- WaterMatters! Grade 7 (student booklet and teachers guide)
- Springs Crossword Puzzle (student activity sheet)
- Springs Bookmark

**Virtual Watershed Excursions:** [Click here](#) to access the Springs Coast Virtual Watershed Excursion and teachers guide

## Standards:

### Science

- SC.6.E.6.2** Recognize that there are a variety of different landforms on Earth's surface, such as coastlines, dunes, river, mountains, glaciers, deltas and lakes and relate these landforms as they apply to Florida.
- SC.7.E.6.1** Describe the layers of the solid Earth, including the lithosphere, the hot convecting mantel, and the dense metallic liquid and solid cores.
- SC.7.E.6.2** Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and subsurface events (plate tectonics and mountain building).
- SC.7.E.6.6** Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

### English Language Arts (B.E.S.T.)

- ELA.6.C.2.1** Present information orally, in a logical sequence, using nonverbal cues, appropriate volume, clear pronunciation and appropriate pacing.
- ELA.6.C.4.1** Conduct research to answer a question, drawing on multiple reliable and valid sources, and refocusing the inquiry when appropriate.
- ELA.7.C.2.1** Present information orally, in a logical sequence, emphasizing key points that support the central idea.
- ELA.7.C.4.1** Conduct research to answer a question, drawing on multiple reliable and valid sources, and generating additional questions for further research.