Water on the Move (Interpretation) Teacher's Guide

Subject: Integrated Science (Life; Earth-Space; Physical)

Topics: How surface water and ground water are connected. How humans influence the health of the water systems.

Summary: Students are led around Blue Hole, a spring within the Florida Caverns State Park. The Students discuss the movement of water on the surface and below the surface by visiting connected rivers and springs, as well as viewing a ground water model. Students will answer discussion questions after guided lesson is complete.

Objective(s): After completing the field lab, students will be able to:

1. Explain the how water on the surface is connected to underground waterways.
2. Understand what a sedimentary rock is, how it is formed and weathered.
3. Recognize their local watershed

Ecosystem(s): Springs

Equipment:

- Tour Guide
- Groundwater model
- Posters

Background (Pre-field Classroom Activity)

Reference Material: Holt. Earth Science. *The Flow of fresh water*. Chapter 11; E.O. Wilson "the Diversity of Life " (pg 35); "Where the River Begins": flow of water from mountain spring...through farmlands...to lowland river.

Project Wet: Rainy day walk

Vocabulary: micro-, sub-, macro-, watershed, Floridan aquifer, water cycle, surface water, ground water, run-off, percolation, point-source pollution, non point-source pollution.

Procedure (Engage; Explore; Explain)

See Outline. Attached.

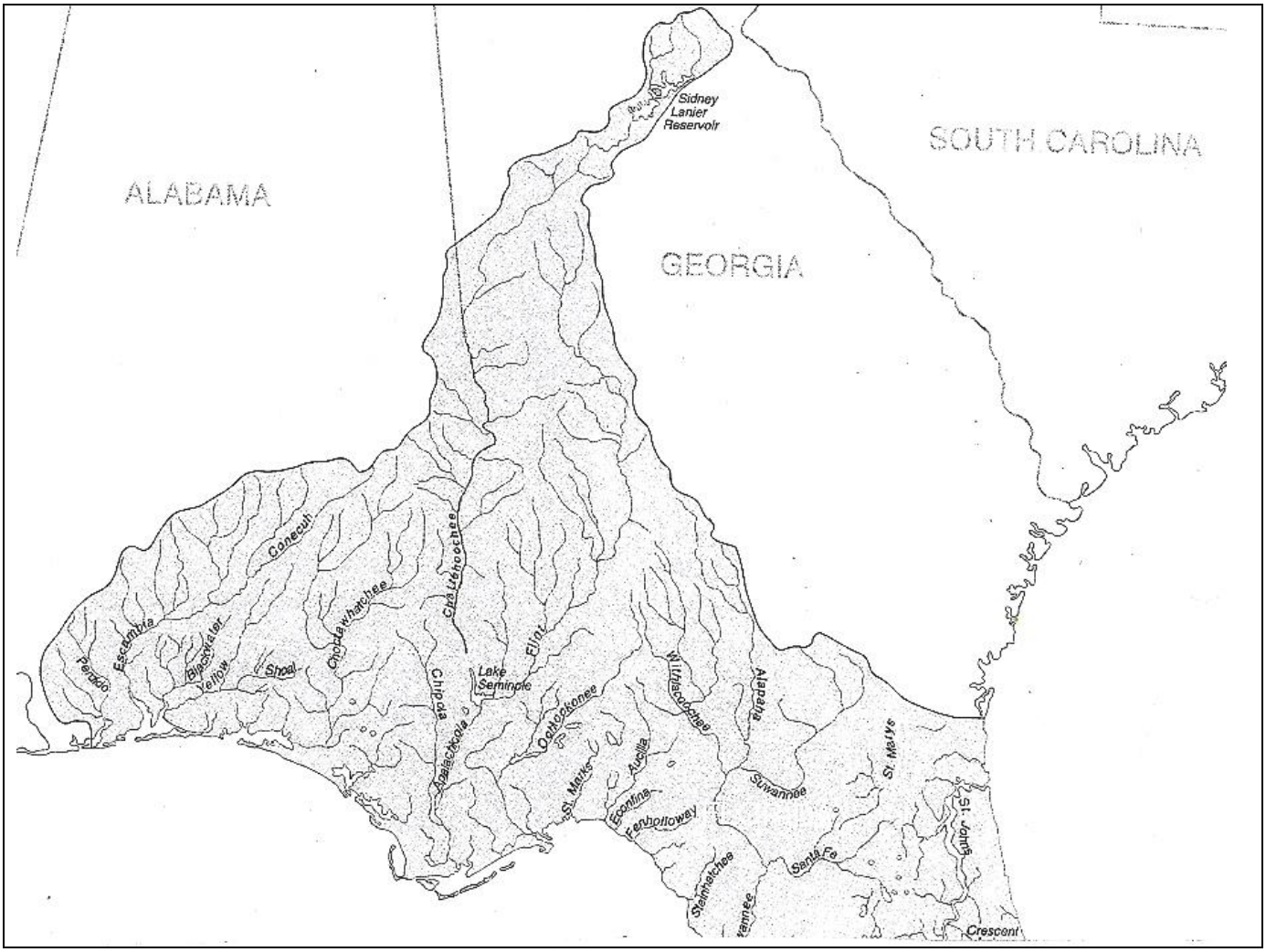
Sunshine State Standards

Science:
Language Arts:
Mathematics:
Social Studies:

Water Movement Student Data Sheet

Full Name:		Date:	
School (teacher):		Time:	

Draw your local watershed



Discussion Questions

1. What local micro-watershed is Blue Hole a part of?

2. What three rivers are part of the macro-watershed?

3. What is the difference between point-source pollution and non point-source pollution? Which one is worse?

4. What is run-off? Why is run-off a concern?

5. How can pollution on the surface affect the earth systems below the surface?

6. What can happen if farmers allow livestock waste to run-off into our lakes and streams?

7. How can water dissolve a rock?

8. If water moves downhill, then how can it come up out of the ground?

Portfolio Journal Prompt

When contractors build parking lots, they sometimes use grass or other permeable surfaces. Think about what a permeable surface IS and WHY it would benefit the environment. Explain why it is important to have a permeable surface and percolation.