



Watershed Quest Curriculum Overview

Curriculum Context This short-focused research project explores local watersheds through topographic map analysis and field investigations.		
Next Generation Science Standards Next Generation Science Standards		
Disciplinary Core Ideas ESS2.C The roles of water in Earth's surface processes.	Performance Expectations <u>4-ESS2-1.</u> Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. <u>4-ESS2-2.</u> Analyze and interpret data from maps to describe patterns of Earth's features. <u>5-ESS3-1</u> Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	Common Core Writing <u>WRITING ANCHOR #7</u> Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
Essential Question		
<ul style="list-style-type: none"> How does water behave in our watershed and why is it important? 		
New Knowledge		
<ul style="list-style-type: none"> A watershed is any area of land that water flows across or through. No matter where you live, you are in a watershed. 		
Texts/Resources		
Background Knowledge Jean-Michel Cousteau, <i>Ocean Adventures</i> www.pbs.org/oceanadventures Lake Champlain Basin Program: Watershed Matters	Sources Topographic maps of your community	
Vocabulary		
<i>What academic vocabulary is essential for this lesson?</i> Research, inquiry, species, ecosystem, watershed	<i>What vocabulary is needed for a close-read of the texts?</i> water cycle, topographic map, source, geological features	

Assessment Evidence

Pre-Assessment

Students create a map of their community and diagram where the water that supports this community comes from and where it goes.

Summative Performance Task Choices

- 1) Students create a watershed map for their town
- 2) Students write a narrative describing the water's journey in their town
- 3) Students create a timeline of the geological, natural, and human history of their watershed site
- 4) Students list watershed challenges and successes

Instructional Process

Introduction

Session 1: Watershed Quest Pre-Assessment

What is a watershed and where is our watershed?

Session 2: The Watershed Quest

What is a Watershed Quest?

Session 3: What is a Watershed?

Where does our water come from and where does it go?

Short Focused Research

Session 4: Exploring our Watershed

What does our watershed look like both up close and on the ground?

Session 5: Reflecting on our Watershed

What is the story of our site?

Presenting New Knowledge

Session 6: Mapmaking and Movement Clues

How can we effectively steer visitors along our quest route?

Session 7: Watershed Research and Teaching Clues

Based on what we know about the watershed, what do we want to share and teach through our teaching clues?

Session 8: Watershed Quest Production Session

What do we need to do to finish our quest?

Session 9: Testing and Editing your Watershed Quest

Does the Quest share our site's story?

Session 10: Post-Unit Assessments

Grade: 4 - 8

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