



POWER OF WATER

Grade 3 – 6 | 90 – 120 Minutes

Teacher's Guide

Description

In this hallmark inquiry-based field trip, students will explore and define how Earth's surface has been shaped by water. Students will get their hands wet using stream tables to investigate changing landforms, erosion and deposition. *Available in selected weeks in January and early February.*

Adult chaperones recommended: 6

Content Standards

Subject	Gr	Standard	Objective/"I can" Statements
Earth/ Space Science	3	<ul style="list-style-type: none"> Earth's nonliving resources have specific properties. Earth's resources can be used for energy. 	<ul style="list-style-type: none"> I can identify characteristics of rock and soil. I can explain how dams harness the power of water
	4	<ul style="list-style-type: none"> Earth's surface has specific characteristics and landforms that can be identified The surface of Earth changes due to weathering The surface of Earth changes due to erosion and deposition 	<ul style="list-style-type: none"> I can explain how weathered materials move through the process called erosion. I can identify the factors that affect erosion and deposition. I can compare and contrast erosion and deposition. I can explain how Earth's surface wears away through the process of weathering. I can recognize the factors that cause weathering.
	6	<ul style="list-style-type: none"> Soil is unconsolidated material that contains nutrient matter and weathered rock. Rocks, minerals and soils have common and practical uses. 	<ul style="list-style-type: none"> I can explain what soil is composed of I can describe how rocks and soil are used in construction
Climate Literacy Principles		2. Climate is regulated by complex interactions among components of the Earth system. 7. Climate change will have consequences for the Earth system and human lives.	

Pre-Trip Activities at School

Vocabulary

basin	particle
channel	peninsula
delta	plunge
deposition	pool
erosion	sediment
flow rate	streambed
meander	substrate
landform	undercutting
oxbow lake	volume

Books

- Erosion: Changing Earth's Surface by Koontz. Picture Window Books, 2007.
- Rivers by Llewellyn & Feldman. Kingfisher, 2014.
- U.S. Landforms by Dana Meachen. Scholastic, 2012.
- Weathering and Erosion and the Rock Cycle by Joanne Mattern. Rosen Publishing Group, 2006.

Other Activities

- Investigate human vs. natural causes of erosion. (Natural: wind & water; Human: agricultural and construction practices).
- Investigate Ohio landforms.

Post-Trip Activities at School

Look at Ohio landforms that were created by liquid water vs. ice and glaciers.

Extension Activities

- Use Landsat data to research and locate a specific landform that formed through erosion or deposition.
- Read: Out of the Dust by Karen Hesse. Great Source, 2009.