



# THE BUS PROJECT

## TODAY'S EXPLORATION: Oh No! Erosion!

### Grade Level : 4

**Overview:** Students will explore water runoff and soil deposits dependent on the volume of water from precipitation. Students will discover how specific locations are safer from high erosion rates than others.

**NGSS: 4-ESS2-1.** Make observations and measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. [Clarification Statement: Examples of variables to test could include angle of slope in the downhill movement of water, amount of vegetation, speed of the wind, the relative rate of deposition, cycles of freezing and thawing of water, cycles of heating and cooling, and volume of water flow.] [Assessment Boundary: Assessment is limited to a single form of weathering or erosion.]

### Practices

- Planning and Carrying Out Investigations

### Crosscutting Concepts

- Cause and Effect

### Materials:

- Access to outdoor space (park, backyard, schoolyard, etc.)
- Paper and pencil
- Water (sprayer, water bottle, a full cup, etc.)
- Video - [The Power of Water for Kids](#)
- OPTIONAL Extension - Water Table Activity [Make Your Own Erosion! - #sciencegoals - YouTube](#)

## Investigation:

1. Start by going outside and finding any evidence of puddles, streams, bodies of water, etc.
2. Where is the water located? (High, low, on rock, on dirt, on the sand, in the grass, etc.)
3. Look for evidence of where the water was in the past. What tells you water was once there?
4. Why does the water pool where it does? What do all areas that have pools of water have in common? Where does water come from?
5. After investigating where water is and thinking about how it got there, watch the Video - [The Power of Water for Kids](#).
6. Now think about the following questions and create an Erosion Information Poster to answer them;
  - a. Where is erosion by water most likely?
  - b. What might happen in an area with a lot of erosion by water?
  - c. Can it be safe to live in an area with erosion? Why and why not?
7. After making your poster please share it with another person one on one, or in a group.

## Product or Artifact Possibilities:

- Erosion Information Poster

## Optional Extension:

Students can make their own water table and explore how water interacts with soil. Watch this video for the setup, procedure, and questions to consider [Make Your Own Erosion! - #sciencegoals - YouTube](#)

## Guiding Questions:

1. What is erosion?
2. In what different ways does water cause erosion?
3. Is erosion safe or unsafe to live near?

## What Are We Discovering?

Water can cause erosion in different ways. We can observe the evidence of erosion all around us and where water is present. Erosion is a natural process and happens all the time, but it can cause problems for people.

## Acknowledgments:

Many thanks to Tiffany M. Windle-Hanson and STEM Oregon.

