

3-5 Lesson



Erosion

Grade Level: 3rd-5th grade

Topic: Soil and Water

Estimated Time: 50 minutes

Brief Lesson Description:

Students will explore an introduction to the Earth's land and water use. Do you know what percentage of the Earth is water and what percentages of the Earth land is usable for agriculture? Students will also learn about how farmers work with agronomists and hydrologists to ensure soil health and water quality are safe not only for the fields and farms, but their local watershed!

From here, students will work in teams to build a watershed and see the impact water has within their local watershed. Students will demonstrate water flow through a watershed, identifying landforms and sources of erosion.

Finally, students will write a hypothesis about what type of soil is best for agriculture and fighting erosion. Students will demonstrate water flow through three types of land, including a grassy field, rocky field, and a field with mulch. Students will continue the exploration using sand and water to simulate erosion to test their hypothesis.

Next Generation Science Standards

- **ESS3.C: Human Impacts on Earth Systems**
 - Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.
- **4-ESS2-1:** Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.
- **5-ESS3-1:** Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources.

National Agricultural Literacy Outcomes:

- **T2.3-5 e:** Understand the concept of stewardship and identify ways farmers/ranchers care for soil, water, plants, and animals.
- **T5.3-5 b:** Discover that there are many jobs in agriculture.