In this trail you will experience two types of erosion by doing hands on experiences that will be loaded with fun. You will get to pick a rock, name it, and write a story about the rocks life. We will start off by reading “How Mountains are Made” by Kathleen Weidner Zoehfeld, James Graham.

Casey Loshe and Cayla Davenport
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Stop #1: Sand Volleyball Court

- Build a sand castle
- Draw a picture of your sandcastle
- Use either a straw, a hand held fan, or a battery powered fan, to erode the sand castles
- Draw a picture of the sandcastle after the erosion occurred and compare pictures

Before

After

Stop #2: Parking Lot

- Separate into two groups near one of the water erosion stations
- Discuss prediction as a small group
- Hold finger over straw and fill cup with water
- Remove finger to allow the water to erode the soil
- Switch stations and repeat the process
**GET ERODED!**

Explore the force of water erosion and create your own landforms!

**GENTLE SLOPE TEST**

1. Poke a hole in the cup near the base. Put the straw in the hole. Seal with modeling clay.
2. Prop up the board about 3 inches.
3. Cover the board with soil. Put cup at the top as shown.
4. Draw your prediction of what will happen when water runs down the slope.
5. Hold a finger over the straw end and fill the cup with water. Remove your finger. Watch water power in action. Draw the result.
6. Raise the board to 6 inches and repeat the test.

**STEEP SLOPE TEST**

- **Prediction**
- **Result**

**Setup:**

**Challenge:**

Can you control steep-slope erosion with rocks, leaves, roots, or sticks? Try it!
Stop #3: Mall

- Get a rock from the pile
- Observe the rock to look for evidence of erosion
- Write a narrative story of how your rock has become eroded
  - Be sure to use either wind or water erosion
- Share stories

Narrative:

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Teacher Page

**Big Idea:** Characterize wind and water erosion using problem solving skills

**Standards:** Earth Science 4.2.2: Demonstrate and describe how wind, water, and glacial ice shape and reshape earth’s land surface by eroding rock and soil in some areas and depositing them in other areas in a process that occurs over long period of time

**Stop #1: Sand Volleyball**

**Objective:** Using sandcastles, students will demonstrate one form of erosion

**Assessment:** Observe students eroding their sand castles

- Discuss ways erosion could occur (wind and water)
- Have students change the direction and angle the wind is coming from

**Stop #2: Parking Lot**

**Objective:** Given a slope covered with soil, students will perform water erosion experiments successfully

**Assessment:** Observe students performing water erosion

- Set up two water erosion stations following the Magic School Bus worksheet
- Discuss the results with the students
- Discuss what would happen if you added obstacles

**Stop #3: Mall**
**Objective:** Given a rock, students will write a narrative identifying the rock saying which type of erosion occurred

**Assessment:** Read the narratives looking for the type of erosion (water or wind)

- Have rocks ready for students to pick from
- Explain the difference between an eroded and non-eroded rock