

# Badlands In Your Classroom

National Park Service  
Department of the Interior

Badlands National Park



## Deposition & Erosion

*The Badlands formed by two geologic processes: deposition and erosion.*

### Pre-visit lesson for Badlands in Your Classroom program.

**Grade:** 8

**Length:** 50 minutes

**Objectives:**

1. Define deposition and erosion.
2. Identify examples of erosion in real life situations.

**Background:**

Badlands is an evolving landscape formed by the processes of deposition and erosion and the forces of wind and water. These major forces formed, and continue to shape, the Badlands of South Dakota. **Deposition** is the settling out of sediments (sand, clay, silt) from water or air. The sand at the bottom of a lake has been *deposited*. The term *sedimentation* may also be used to describe this process. **Sedimentation** has a broader definition and refers to the entire formation of sedimentary rocks; from when they were eroded away from the parent rock, traveled as sediments, were laid down (deposition), and changed over time into rocks. **Erosion** is the wearing away of the earth's surface.

Class Discussion (20 minutes)

- Define "geology". *Geo-*: earth. *-ology*: the study of. Geology is the study of earth. Brainstorm other words that contain *geo*—or *-ology*. (geography, geode, biology, astrology)
- Write "deposition" on the board. Pour some sand into a jar. Say, "I am depositing the sand in this jar." Have students work in pairs or groups to write a definition of what they think deposition means. Next, have them look it up in the dictionary or in the glossary of a science book. Lead a class discussion on what "deposition" means in geology. Have each group revise their definition based on what they learned.
- Tell the students that they are going to try and guess the next word. Discuss how the roots of plants help to hold soil in place. Ask students if they have ever seen the effects of erosion. If so, where? Can they describe examples of erosion? Wind, water, and ice cause erosion.
- Remind students that the Badlands were formed by *deposition* and *erosion*.

Outside Activity or Homework Assignment (15 minutes)

- Point out evidence of erosion on the school grounds. Some good examples are often near drains, drain pipes, and at the edges of the blacktop.
- Then, have students pair up with a partner to look for more signs of erosion.
- Students describe and/or sketch examples of erosion.

Classroom Discussion (10 minutes)

- After students have completed the above assignment, ask them to share what they have written and sketched about the effects of erosion.
- Review the term erosion and discuss how plants help stop erosion.

Closing Discussion (5 minutes)

- Briefly discuss why the students think deposition and erosion are important to Badlands National Park.