

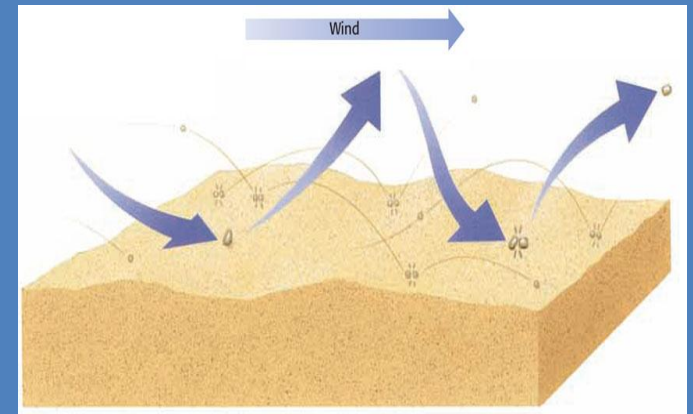
Wind Erosion and Deposition

Objectives

- **Explain** why some areas are more affected by wind erosion than other areas are.
- **Describe** the process of saltation.
- **Identify** three landforms that result from wind erosion and deposition.
- **Explain** how dunes move.

I. The Process of Wind Erosion

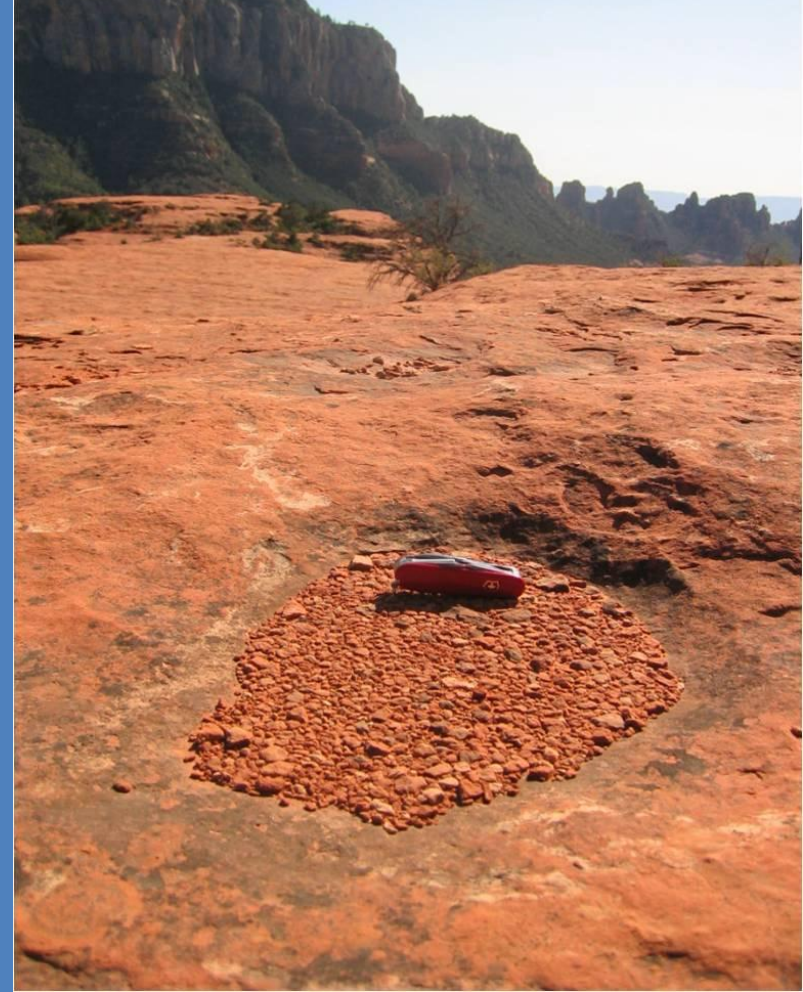
A. Saltation is the skipping and bouncing movement of sand or other sediments, caused by wind.



B. Moving sand grains knock into one another, bounce up into the air, fall forward, and strike other sand grains, causing them to roll and bounce forward.

I. The Process of Wind Erosion *continued*

- C. **Deflation** is a form of wind erosion in which fine, dry soil particles are blown away, removing the top layer of fine sediment or soil and leaving behind rock fragments that are too heavy to be lifted by the wind.
- D. Deflation may cause *desert pavement*, which is a surface consisting of pebbles and small broken rock.
- E. Scooped-out depressions in the landscape are called *deflation hollows*.



I. The Process of Wind Erosion

continued

- F. **Abrasion** is the grinding and wearing away of rock surfaces through the mechanical action of other rock or sand particles.
- G. Abrasion commonly happens in areas where there are strong winds, loose sand, and soft rocks.
- H. The blowing of millions of sharp sand grains creates a sandblasting effect, helping erode, smooth, and polish rocks.



II. Wind Deposited Materials

- A. **Loess** is a deposit of windblown, fine-grained sediment.
- B. Because wind can carry fine-grained material much higher and farther than it carries sand, loess deposits are sometimes found far from their source.



II. Wind Deposited Materials *continued*

- C. **Dunes** When the wind hits an obstacle, the wind slows down, depositing the heavier material. The material collects, creating an additional obstacle and eventually forming a mound that buries the original obstacle.
- D. The mounds of wind-deposited sand are called **dunes**. A dune keep its shape, even though it moves.



[Great Sand Dunes National
Park](#)

II. Wind Deposited Materials *continued*

E. The Movement of Dunes Different wind conditions produce dunes in various shapes and sizes. A dune usually has a gently sloped side and a steeply sloped side, called a *slip face*.

