

# Pitter, Patter, Raindrops

Small, but mighty - that's what a single raindrop is. A raindrop can strike the earth at 9 to 20 miles per hour (14.5 – 32 km/h). As rain falls upon the earth, soil is loosened. And, as more rain falls, the soil can be carried away. Soil that is washed away by water is called **erosion**.

The word erosion is from the Latin word *erodere*. It means, "to slowly eat away." Erosion is a process that has the power to change the surface of the earth. It works very slowly, every second of every day. The three forces of Mother Nature that can steadily eat away at land and change the way it looks are water, wind, and glaciers.

In many countries of Africa, soil erosion is a very serious problem. Maybe you've never thought of the importance of soil. Now is the time. Many food chains begin with soil. Without soil, there would be no plants. Without plants, there would be no plant-eating animals. Without plant-eating animals, food sources for humans would decrease dramatically. Soil is vital for life on earth.

Soil erosion in Africa is happening for many reasons. Unfortunately, the cause of the problem stems from what people have done to their natural environments. As the population has grown in Africa, more and more people have put pressure on Mother Earth. They need more space to live, more space to grow crops, more space to maintain their livestock, and more fuel.

To meet their needs, people have cut away at the forests and bush. There are now fewer plants and trees to protect the soil from erosion. Plants and trees protect soil in three ways. Plants above the ground act as an umbrella. Their leaves stop the rain from striking the earth full force. Plants and trees above the ground also protect the soil from being blown away by the wind. Below the ground, the roots of plants and trees help to hold the soil in place. They give the soil something to hold on to.

Many countries of Africa have long, long rainy seasons sometimes lasting six months out of the year. In Angola, the rainy season is from November to April. With so much rain, it is particularly important that people work to conserve and care for their life-giving soil.

The following activities will give you some experience with the process of erosion.

1. Simply rub two rocks together over black paper. What happens? Where do you think this happens on Earth? What natural forces can cause rocks to rub against each other?
2. Create two equal mounds of dirt. Pour a cup of water five inches above one. Measure the depth of the impression the water creates and observe how the water runs off. Collect any soil that is washed away by the water and measure it. Shelter your second mound of dirt with a plant and pour another half a cup of water from above the plant. Measure the depth of any impressions the water creates. Collect any soil that is washed away by the water and measure it. Compare your findings between the two mounds of dirt. What conclusions can you make?