#### **READING MATERIAL**

## **Read About Changing the Shape of Land!**

#### **DEFINITION OF EROSION**

Erosion is when tiny pieces of the Earth's surface are moved from one place to another. This is usually caused by moving water or wind. Erosion usually happens very slowly.

To better understand how changing the shape land works...

### LET'S BREAK IT DOWN!

# The shape of land can change over time.

The shape of land is constantly changing. You may not have noticed because it usually happens very slowly. People can slow down or stop erosion using the power of science!





# Flowing water can move sand and soil.

As water flows in a river, it can carry sand and soil from one place to another. This is called water erosion and it is how the Grand Canyon was formed over a long time.

# Wind can change the shape of land.

Wind is just moving air. It can blow sand and soil from one place to another. Wind can move tiny pieces of the Earth's surface very far and very fast.





# Erosion can cause major damage.

If the land beneath a house is moved away because of erosion, the house can fall down. If sand on the coast is moved away by ocean waves, the beach will be gone.

# Erosion usually takes a long time.

It took a long time for the Grand Canyon to be carved by moving water. Erosion can take millions of years! It can also happen fast such as in a flood.



### CHANGING THE SHAPE OF LAND VOCABULARY

Moving pieces of the Earth's surface from one place to another. This is usually caused by moving water or wind.

| Rainfall | Water that falls down from clouds.   |
|----------|--|
| River    | A flowing stream of water. Water in a river flows from one place to another. |
| Wind     | What happens when the air around us moves from place to place.               |
| Coast    | The area where land meets the ocean.   |
| Waves    | When wind blows across water and makes the water move up and down.           |

### CHANGING THE SHAPE OF LAND QUESTIONS

#### How can wind change the shape of the land?

Wind can carry soil across a distance, such as sand dunes forming or being blown away. This is called wind erosion.

#### How can water change the shape of the land?

Water can carry tiny pieces of the Earth's surface downstream, like how the Grand Canyon was formed by the flowing water of the Colorado River.

#### What are some examples of erosion?

Wind breaking down rocks and carrying the particles away is an example of erosion. You can also see how over time a river carries soil downstream and makes rocks in the river smoother.

### How was the Grand Canyon formed?

Flowing water carved into the rock and carried the particles downstream. Over a long time, the river carved deeper and deeper and the Grand Canyon became how it is today.

### What can help to reduce or stop water erosion?

Natural and manmade objects can block the water from eroding soil. Humans can plant grass or add mulch and stones on top of soil to keep it from moving away.

### What can help to reduce or stop wind erosion?

You could plant trees to slow down the wind. You could also add plants like grass, whose roots will keep the soil in the ground.