

Springboard^{into} Comprehension

25

Identifying Detail There's No Time Like the Present

Main Idea Shaping the Earth

Sequencing Dragon's Diary

Compare and Contrast Cricket v Baseball

Fact and Opinion Saving the Reef

Cause and Effect Two Rivers



Shaping the Earth



Written by Sarah Edwards

Shaping the Earth

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Introduction

The land is always changing. The ground beneath your feet might seem firm, but its shape changes in different ways.

The land is built up from below. Forces from deep within Earth push up mountains and hills. They pull apart land to make seas and valleys.



Parts of Earth's crust move against each other, forming mountains and valleys.

Forces also shape the land from above. Forces such as ice, waves, and wind break it up. Water mixed with chemicals also breaks up land. This process is called **weathering**.

Forces move parts of the land from one place to another. This process is called **erosion**.



Ocean waves have broken up the rock along this coastline.

Destroying Rock

Rock is hard to destroy, but natural forces can break it down. Ice, plants, and water may break rock over time. Mountains made of rock might look tough, but weathering and erosion are always wearing away rocks and soil.

Ice can break even the toughest rock. Water gets into cracks in the rock. When the water freezes, it turns into ice and expands. The force from the expanding ice makes the rock shatter or split.

Plants can also change the land. Their roots can grow into small cracks in the rock. The roots widen the cracks as they grow bigger. When ice or plants break rock like this, it is called **mechanical weathering**.



Mechanical weathering from ice is common in cold and wet areas.



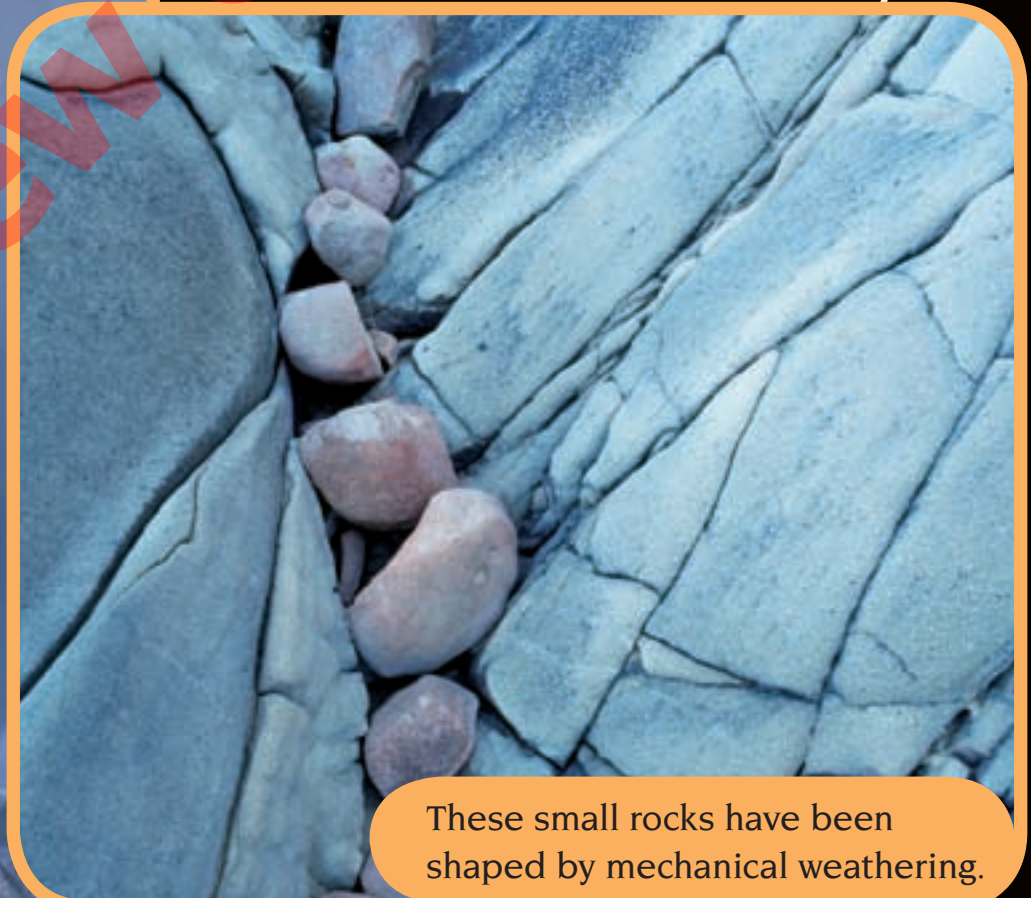
As tree roots grow, they expand the cracks in rock.

Water also breaks down rock. Rainwater gets into cracks and holes in the rock. Rainwater contains chemicals that break things down, or **acid**. The acid softens the outer part of the rock, causing it to break off. This process is called **chemical weathering**.

Mechanical and chemical weathering break rock into smaller pieces. The small rocks then break into gravel and sand. Erosion by rivers, wind, and ice then moves the gravel and sand. As it moves, it helps weather other rock.



Chemical weathering can break rock into smaller pieces.



These small rocks have been shaped by mechanical weathering.