

Shaping the Earth: Short Answer Challenge Answer Key

Sample Responses

1. **Mountains to Pebbles:** Over millions of years, wind, water, and temperature changes cause weathering that breaks down mountain rock. Erosion carries the pieces downhill or into rivers, where they are smoothed into pebbles.
2. **Coastal Changes:** Waves cause physical weathering by crashing into rocks and breaking them apart. The broken pieces are carried away by erosion, reshaping the coastline.
3. **River Journeys:** A river erodes rock and soil from its banks and bed at its source. It transports sediment downstream and deposits it at the mouth, forming features like deltas.
4. **Glacial Sculptors:** Glaciers break down rock through plucking and abrasion. They carry the debris as they move and deposit it when they melt.
5. **Human Impact:** Removing vegetation exposes soil, making it more vulnerable to erosion from wind and rain. Over time, this can reshape the hillside, removing valuable topsoil and creating gullies.

Bonus Challenge Sample: The Grand Canyon was shaped by weathering that weakened rock layers and erosion by the Colorado River cutting through the rock. Deposition occurred downstream where the river dropped sediment.