

UNIT 02 / 16 · LEARN & TRY

Geomorphic processes: shaping landscapes

Name: _____ Date: _____

Goal: Distinguish surface processes and trace a material pathway through a landscape.

Learn

Landscapes change through processes operating within Earth and at its surface. Endogenic processes, including tectonic movement and volcanism, can build or deform relief. Exogenic processes weather, erode, transport and deposit material. Weathering breaks down rock in place through physical, chemical or biological action. Erosion removes material; transportation moves it; deposition occurs when an agent can no longer carry its load. These stages are connected but not interchangeable. Mass movement carries material downslope under gravity without requiring a river or wind as the transporting agent. Climate, rock structure, vegetation and time influence the rate and form of change. A landform may reflect several processes or earlier conditions rather than only the present environment. To explain it, identify the agent, the material, the energy involved and contextual evidence. Distinguish observed shape from inferred origin and consider whether erosion and deposition occurred in different places along the same system.

Worked example

Original fictional scenario: Frost fractures rock on a hill; rain runoff removes fragments, a stream carries them and slower water deposits some on a plain. Breaking, removal, movement and settling are distinct stages.

1. Original fictional scenario: A rock cracks but its pieces stay beside it. Is weathering or transportation directly shown? Explain. [2 marks]