

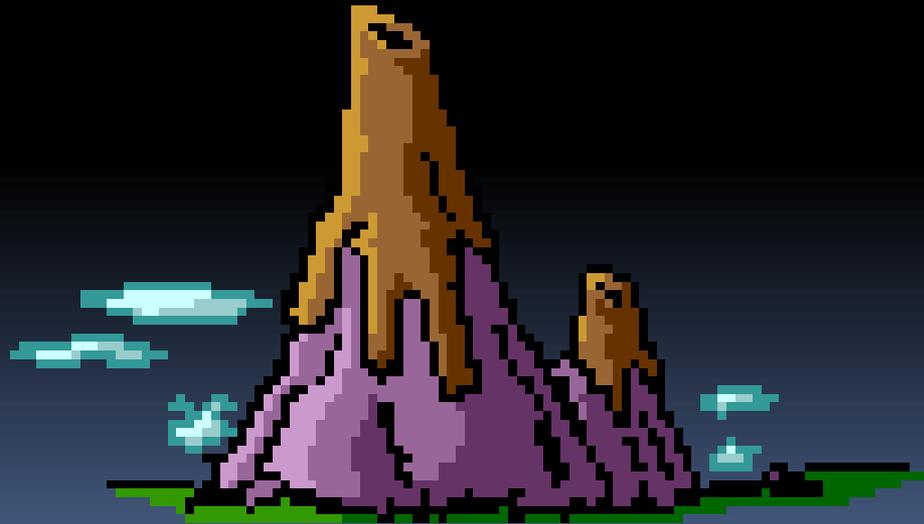
Unit 1: The World

Chapter 1: Looking at the Earth

Section 3: Forces Shaping the Earth



Forces both inside the earth and on its surface affect the shape of the land.





Inside the Earth

- Earth has an inner and outer core.
- Surrounding the core is the mantle. It also has two parts. The section next to the core is solid. The rock in the outer mantle sometimes melts and is called magma.
- The uppermost layer is the crust. It includes the ocean floors and the seven massive land areas known as continents.



Forces Beneath the Earth's Crust

- Plate Movements: Scientists have developed a theory called Plate Tectonics.
 - The crust is made up of huge slabs of rock that move.
 - The eastern part of South America and the western side of Africa were once joined together in a landmass called Pangaea.
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When Plates Meet

- If two continental plates smash into each other, the collision produces high mountain ranges – Himalaya.
- If a continental plate and an ocean plate move against each other, the result is an earthquake.
- Undersea earthquakes can cause huge waves called tsunamis.
- When two plates move along side each other, the movement creates a fault, or cracks.

Forces Shaping Landforms

- Wind, water, and ice can change the look of the land.



Weathering

- The process of breaking surface rock into boulders, gravel, sand, and soil.
- Water and frost, chemicals, and even plants cause weathering.



Erosion

- Erosion is the process of wearing away or moving weathered material.
- Water, wind, and ice are the greatest factors that erode, or wear away surface material.





Forces both inside the earth and on its surface affect the shape of the land.

- Earth has an inner and outer core, a mantle, and a crust.
- The continents are on large plates of rock that move.
- Earthquakes and volcanoes can reshape the land.
- Wind, water, and ice can change the look of the land.



VOCABULARY

- Core- center of the earth, formed of hot iron mixed with other metals
- Mantle – rock layer about 1,800 miles thick between the core and the crust
- Magma – hot, melted rock that sometimes flows to the earth's surface in a volcanic eruption
- Crust – uppermost layer of the earth
- Continent – massive land area

VOCABULARY

- Plate tectonics – theory that the earth's crust is not an unbroken shell but consists of plates, or huge slabs of rock, that move.
- Earthquake – violent and sudden movement of the earth's crust
- Tsunami – huge sea wave caused by an earthquake on the ocean floor
- Fault – crack in the earth's crust



VOCABULARY

- Weathering – natural process that breaks surface rocks into boulders, gravel, sand, and soil
 - Erosion – process of wearing away or moving weathered material on the earth's surface
 - Glacier – giant, slow-moving sheets of ice
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