

22.6- Volcanoes

Key Concepts

- Under certain conditions, small amounts of mantle rock can melt, forming liquid magma. The magma rises upward through the crust, erupting at the surface as a volcano.
- Volcanoes can erupt explosively or quietly, depending on the characteristics of the magma.
- Most volcanoes occur along plate boundaries or at hot spots in the crust.
- The three major types of volcano are shield, cinder cones, and composite.
- Igneous features formed by magma include batholiths, sills, dikes, and volcanic neck.

Vocabulary

- Volcano
- Magma chamber
- Pipe
- Vent
- Crater
- Caldera
- Hot spot
- Shield volcano
- Cinder cone
- Composite volcano
- Batholith
- Sill
- Dike
- Volcanic neck

Key Questions

- 1) How do volcanoes form?
- 2) Why are some volcanic eruptions quiet and others explosive?
- 3) Where are volcanoes found?
- 4) What landforms are formed from lava and magma?

22.5- Earthquakes

Key Concepts

- As tectonic plates move, they cause stress in the crust, which in turn produces faults and folds.
- Earthquakes occur because stress forces have exceeded the strength of rock.
- To measure earthquakes and pinpoint their epicenters, geologists record seismic waves using seismographs.
- Most earthquakes occur along plate boundaries.

Vocabulary

- Earthquake
- Seismic waves
- Stress
- Fault
- Fold
- Focus
- Epicenter
- P waves
- S waves
- Surface waves
- Seismograph

Key Questions

- 1) What causes faults and folds?
- 2) What causes earthquakes?
- 3) How are earthquakes measured?
- 4) Where do most earthquakes occur?
- 5) Compare and contrast P waves, S waves, and surface waves.