

CHANGES ON EARTH

Layers of Earth

The Earth is made up of three main layers: crust, mantle, and core.



Under the Earth's crust is the layer called the **mantle**. The Earth's mantle is made of igneous and metamorphic rocks.

The inside layer of the Earth is called the **core**.

The Earth's **core** is made of metal. The Earth's **core** is so very hot, hot enough to melt but the center of the core is packed together so tightly it is solid. The outer section of the Earth's **core** however is hot, thick liquid.

Lesson Checkpoint: What types of rocks make up the Earth's mantle?



Earth's Landforms

Landforms are many different solid features formed on top of the Earth's crust. Some also involve bodies of water.



A **glacier** is a slow moving large body of ice. An **ocean** is made up of saltwater. Oceans cover just about ¾ of the Earth's surface. A **river** is a natural flow of water that is larger than a brook or a creek. A **lake** is large body of still water surrounded by land. A **coast** is the land that is right next to the ocean that forms the coastline.

A **valley** is a low, narrow area that is formed by rivers and glaciers. A **plain** is a large, mostly flat area of land. A **plateau** is a plain that is up higher than all the land surrounding it. Sometimes you will find a plateau on a mountain.



A **hill** is an elevated land but it is not as tall as a **mountain**. A **mountain** is elevated land that reaches high above the Earth's surface and is larger than a hill.

Lesson Checkpoint: Which is taller, a hill or a mountain?

A **volcano** is an opening in the Earth's crust from which hot, melted rock forcefully comes out when pressure is built up inside the Earth. **Magma** is what we call the melted rock that is beneath the Earth's surface. When it bursts out of the volcano and flows on land we call that same molten rock **lava**.

Volcanoes erupt when magma is close to the Earth's surface and pressure builds up forcing the magma out of the Earth's crust.

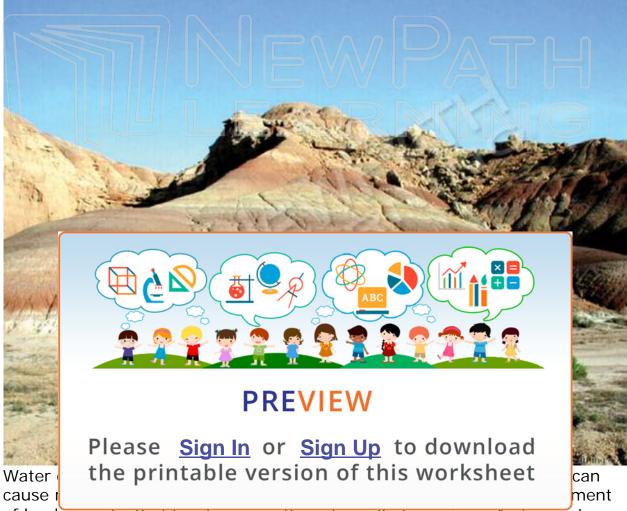


Lesson Checkpoint: What is the difference between magma and lava?

An **earthquake** is a sudden shift in the Earth's crust that causes the ground to shake and vibrate violently. Most **earthquakes** happen near faults. **Faults** are large cracks in the Earth's crust.



Weathering is the process of rocks being changed over time by conditions such as rain, snow, ice, pressure. Rocks can change shape, size, or break into smaller pieces from weathering.



of land or rocks that has been weathered is called **erosion**. A strong storm can cause waves to wash away rocks and land at a beach; that is erosion. **Erosion** is caused by water, wind, gravity, and glaciers.

