

Module 1 Lessons 18-20

Module 1 Anchor Phenomenon: Formation of the Grand Canyon's Features
Essential Question: How did the Grand Canyon's features form?

Focus Question: How do canyons around the world form?

A **canyon** is a big crack in the ground or a very deep valley. Most canyons are made by **rivers**. Canyons range in size from narrow slits to huge trenches, like the Grand Canyon.

Canyons can be formed by erosion from running water, which will take sediment (pieces of the earth) away and create a trench that gets deeper until it forms a canyon.

A canyon has 3 main characteristics:

- Narrow valley
- Steep sides
- Created by erosion

Natural Features and Processes Affect Canyon Formation

Earth's natural features are in the form of mountains, rivers, valleys, etc. These natural shapes present on the surface of the earth are called **landforms**.

Canyons are landforms that can be found in many parts of the world.

Shaded **relief maps** show features on the surface, such as mountains, valleys, plateaus, and canyons. Areas that are flat or have few features are smooth on the map, whereas areas with steep slopes (higher elevation) and mountains appear rougher.

Relief maps show us that **canyons** are **often located near mountain ranges** and are carved out of land with high elevations.

Mountains have high elevations and could be weathered by rivers, and the weathered sediments are carried away by rivers to form canyons.

Some of Earth's processes and features occur in patterns.

- Mountain ranges (feature) often occur **along the edges** of continents.
- Earthquakes (process) often occur in bands **along the edges** of continents and in the **middle of oceans**.
- Volcanoes (feature) often occur in bands **along the edges** of continents and in the **middle of oceans**.
- Volcanoes are found on every continent. The largest concentration of volcanoes is located along a belt known as the **Ring of Fire**, which circles the Pacific Ocean.



Words to Know:

volcano – a vent in the earth's crust where molten rock, gas, and steam erupt onto the planet's surface

magma – molten (melted) rock below the earth's surface

lava – the molten (melted) rock that shoots out of a volcano

earthquake – a shaking of the ground caused by the sudden breaking and movement of large sections (tectonics plates) of the earth's rocks outermost crust