Basic Geography – Part 2

**Earth 101:**

When it comes to the Earth there are two types of movement we talk about: rotation and revolution. **Rotation** is one complete spin of the Earth on its axis. This will take the Earth 24 hours to complete one rotation on its axis. The Earth’s **axis** is an imaginary line that runs through the center of the Earth from the North Pole to the South Pole. Earth’s other type of movement is called revolution. **Revolution** is the Earth’s movement around the sun. One revolution around the sun will take 365 and ¼ days.

**The Seasons and Major Latitude Lines:**

There are two things that happen to create our seasons. First the revolution around the sun and second the tilt of the Earth on its axis. We already know that the Earth revolves around the sun (365 ¼ days), but did you know that the Earth is tilted on its axis by 23 ½ degrees. With this tilt it creates the Winter and Summer solstice and the Spring and Fall equinox.

During the **Sumer solstice** the direct rays of the sun hit the Topic of Cancers at 23 ½ N, creating the longest day of the year (June 21). During the **Winter solstice** the direct rays of the sun hit the Tropic of Capricorn at 23 ½ S, creating the shortest day of the year (December 21). During the **Spring and Fall equinox** direct rays from the sun hit the equator which gives up equal day and night (March 21 and September 22).

Important lines of **latitude** are Tropic of Cancer (23 ½ N), Equator (0 degrees), Tropic of Capricorn (23 ½ S). Important lines of **longitude** are the Prime Meridian (0 degrees).

Another part of the Earth are the *shapes on the planet’s surface*, which are known as **landforms**. Earth’s surface is covered with landforms of many different shapes and sizes. Some important landforms include:

* **Mountains**, land that rises higher than 2,000 feet
* **Valleys**, areas of low land located between mountains or hills
* **Plains**, stretches of mostly flat land
* **Islands**, areas of land completely surrounded by water
* **Peninsulas**, land surrounded by water on three sides

The Earth’s large landmasses called **continents**, They are constantly moving due to plate tectonics. The theory of plate tectonics suggests that Earths surface is divided into a dozen of slow-moving plates.

Other forces that shape the Earth are earthquakes, weathering, and erosion. A sudden, violent movement of Earth’s crust is called **Earthquake**. **Weathering** is the process by which rock is broken down into smaller pieces. **Erosion** is the movement of sediment from one location to another.

**Weather and Climate:**

What is **weather**: the short-term changes in the air for a given place and time.

What is **climate**: a region’s average weather conditions over a long period.

There are 3 things that can influence the climate of an area: **Mountains**, **large bodies of water**, and **elevation.**

**Natural Resources:**

* **Natural Resources** – any material in nature that people use and value.
* **Renewable resources** – resources Earth replaces naturally.
* **Nonrenewable resources** – resources that cannot be replaced.
* **Fossil Fuels** -- Nonrenewable resources that formed from the remains of ancient plants and animals.