

Earth's Features

by Sophia



WHAT'S COVERED

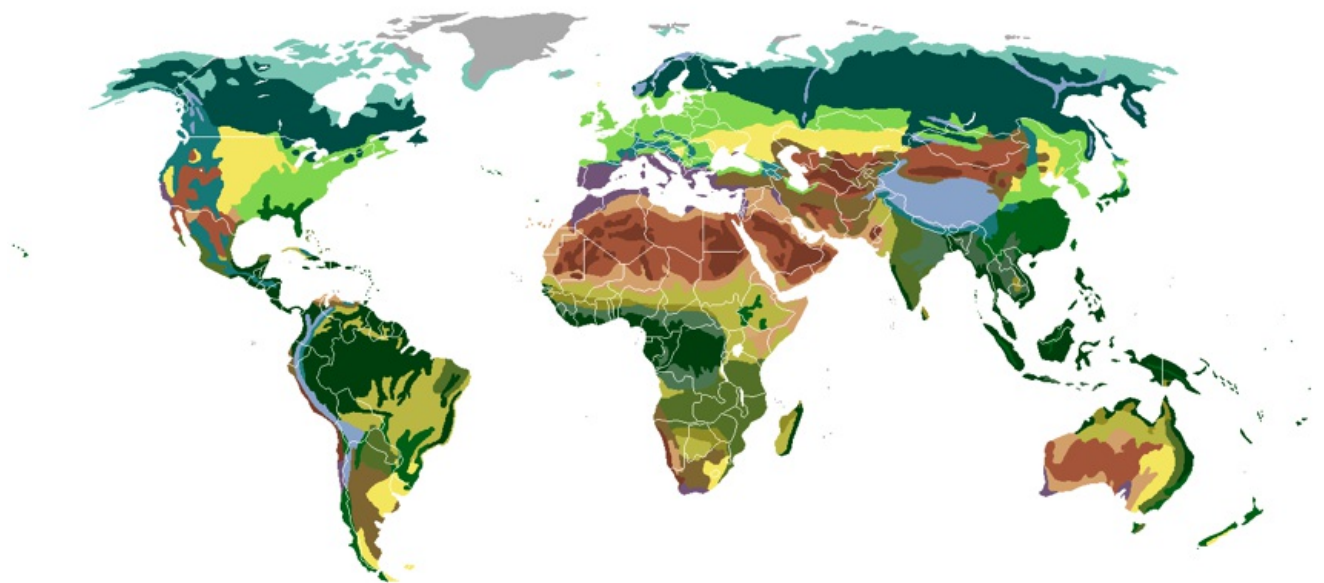
In this lesson, we will discuss Earth's features. Earth comprises three main parts—land, water, and atmosphere—as well as its weather and climate. We will also discuss our key term for today, biome. Specifically, this lesson will cover the following:

1. Land and its Biomes

Biomes are areas of Earth with similar climatic conditions, plant life, and animal life.

Land is made up of seven major, unbroken landmasses surrounded by water, also called continents. The seven continents are Africa, Europe, Asia, Australia, North America, South America, and Antarctica.

Across these seven main landmasses are different regions with various ranges of temperature and precipitation. These different regions have been categorized into eight major biomes (see map below) that are largely determined by the two factors of temperature and precipitation. They include tundra, taiga, temperate forest, tropical rainforest, temperate grassland, savanna, steppes, and desert.



	Ice sheet and polar desert
	tundra
	taiga
	temperate broadleaf forest
	temperate steppe
	subtropical rainforest
	Mediterranean vegetation
	monsoon forest
	arid desert
	xeric shrubland
	dry steppe
	semiarid desert
	grass savanna
	tree savanna
	subtropical dry forest
	tropical rainforest
	alpine tundra
	montane forest



TERM TO KNOW

Biomes

Areas of Earth with similar climatic conditions, plant life, and animal life.

2. Water

Oceans are the largest bodies of water in the world, holding 97% of Earth's water, all of which is saltwater. There are four major oceans, the Atlantic, the Pacific, the Indian Ocean, and the Arctic Ocean, shown below. Earth's oceans regulate our atmosphere by absorbing and storing the sun's energy.

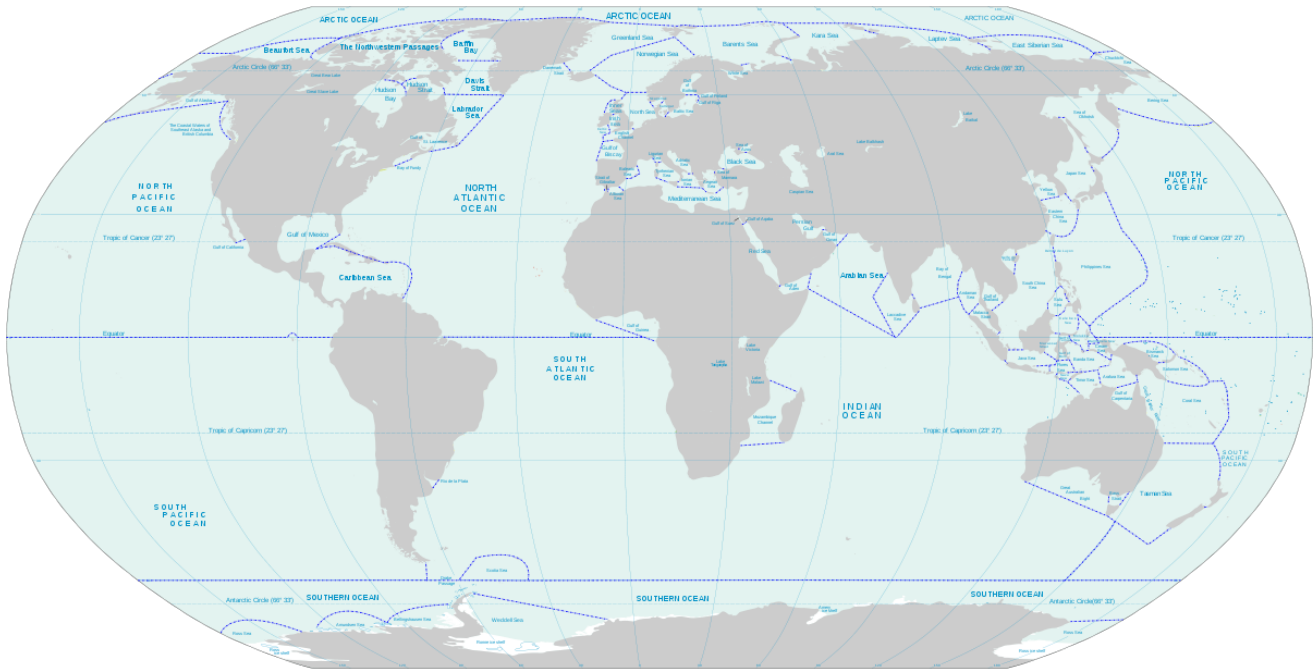
The remaining 3% of water on Earth is freshwater, which is held in the following water bodies:

- Ice caps frozen at the Arctic and Antarctic poles
- Glaciers, or snow that has been compressed into ice on mountains and ice caps
- Rivers, streams, and lakes on land, as well as groundwater that has collected under the surface



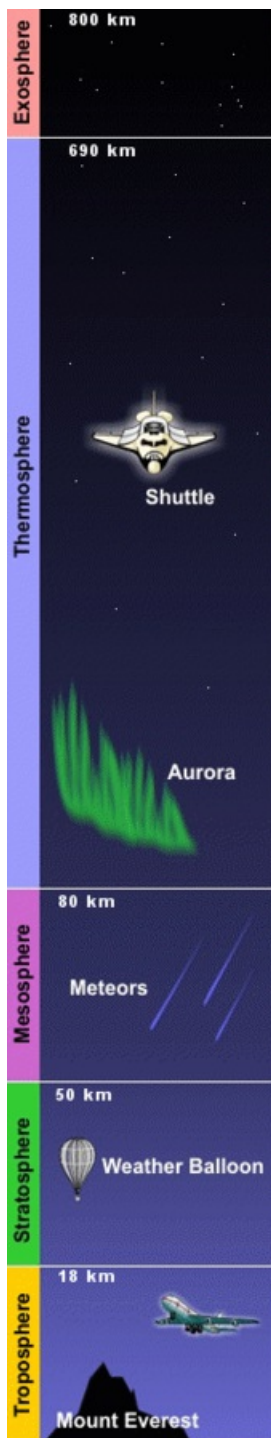
DID YOU KNOW

Oceans cover 70% of Earth's surface.



3. Atmosphere

Our atmosphere is made up of five layers: the troposphere, the stratosphere, the mesosphere, the thermosphere, and the exosphere (see diagram below).



Each layer is made up of a different combination of gases. The lowest layer, the troposphere, is the layer we breathe. The stratosphere contains the ozone layer, which protects Earth from receiving too much UV radiation that would cause health problems to animals and damage to vegetation.

4. Weather and Climate

Weather includes precipitation—or rain, snow, and sleet—as well as wind and temperature. Climate is the weather that an area receives over many years. Climate is determined by many factors, one of which is a region's physical features.

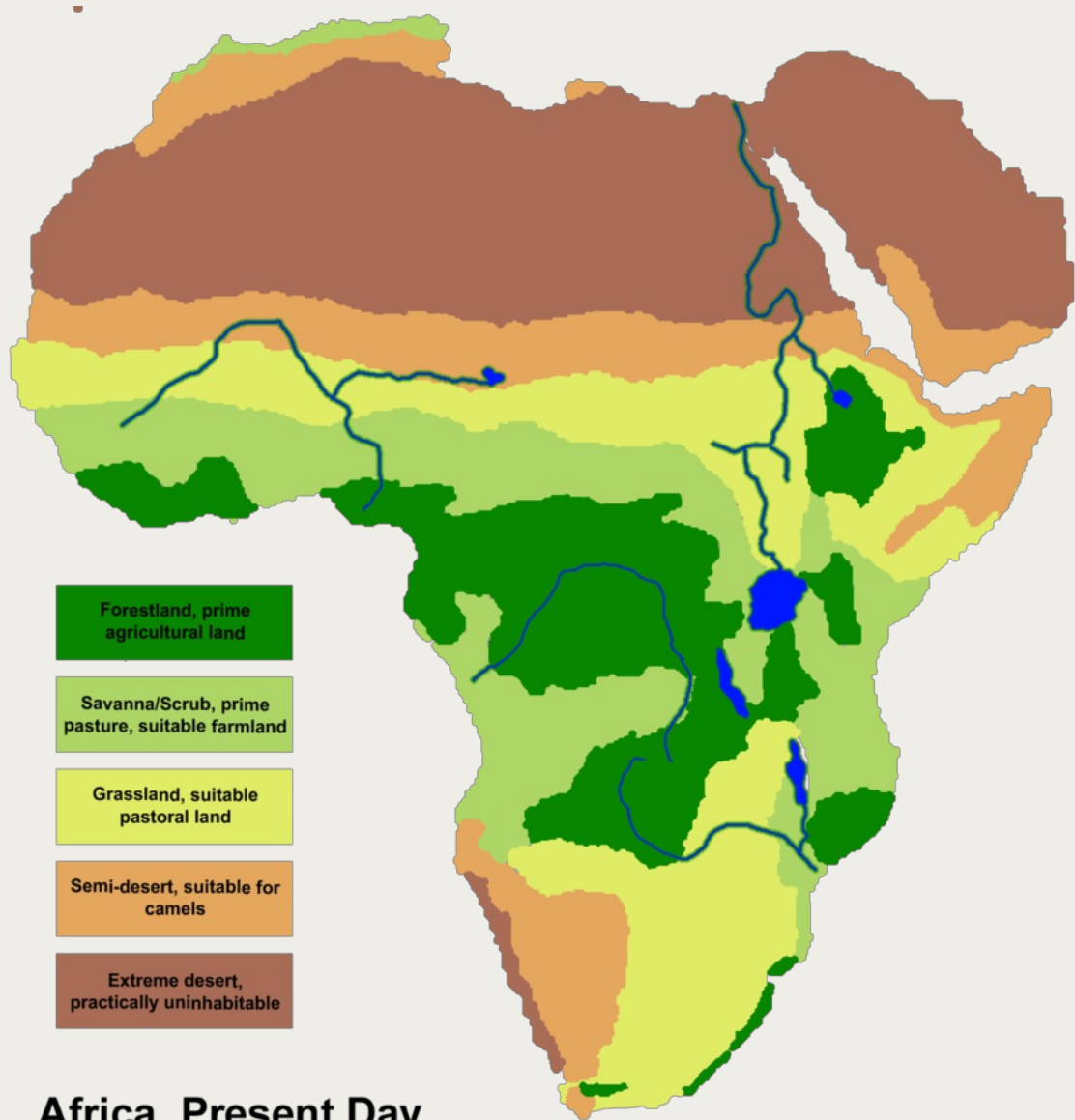
An important factor to remember is that as elevation increases, temperatures drop.

➔ **EXAMPLE** When you travel to a rain forest near a mountain range, you will notice that in the lowlands, temperatures are high. However, as you climb a high mountain nearby, you will notice that the temperature drops and there may be snow.

Another factor to remember is that the farther one gets from the equator, the colder it generally is.

IN CONTEXT

Consider these factors in relation to Africa, shown in the map below.



Northern Africa is directly on the equator and experiences high temperatures in an extreme desert biome. As you move downward in latitude, it shifts to colder biomes and climates. The farther you are from a significant body of water, such as an ocean, the drier it is. As you can see, the northern portion of Africa is driest in the middle, where there is an extreme desert, but has wetter biomes closer to the oceans.



SUMMARY

In this lesson, we learned about the three main features of Earth: **land and its biomes**, **water**, and **atmosphere**. We also learned about **weather and climate**, and that areas of Earth with similar climatic conditions, plant life, and animal life are known as biomes, which is our key term for today.

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TERMS TO KNOW

Biomes

Areas of Earth with similar climatic conditions, plant life, and animal life.