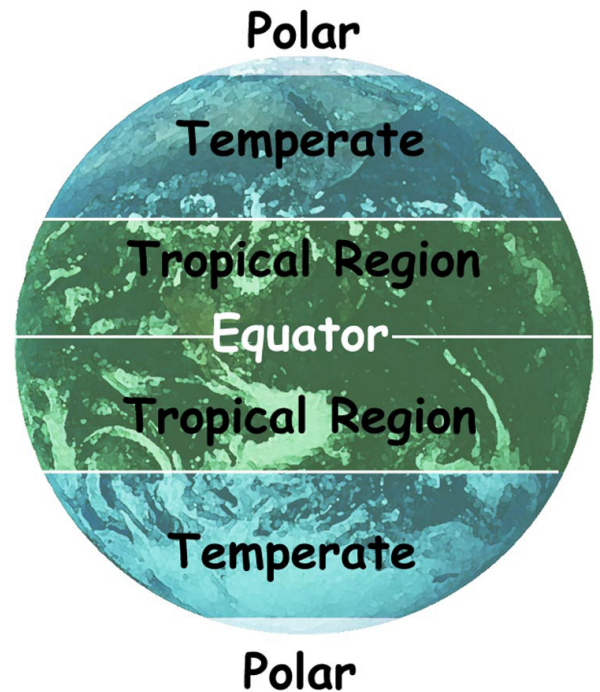


## Biome Locations on Earth

Biomes are regions of the world with a similar *climate* – the amount of rainfall and temperature. The climate affects which plants will grow and in turn which animals (and other living things) can make their living there. Every *community* of living things is adapted for survival in the biome in which it lives. A community is many different kinds of organisms living together in one habitat.

There are both **terrestrial biomes** (land) and **aquatic biomes** (water) on Earth. Terrestrial biomes make up less than 30% of the Earth's surface. The rest are aquatic biomes.

The climate is not the same every day. It is a general weather pattern for a region over time. There are three main climate zones on Earth that help our biomes – **Tropical**, **Temperate**, and **Polar**. Tropical zones are near the *equator*. They get the most direct sunlight for 12-hours a day all year round. They are where you find the hottest biomes. As you move away from the equator north or south you enter the temperate climate zones. The temperate zones have colder winters with short days and hot summers with longer days. This is the climate zone of the United States. Furthest from the equator you reach the polar zones. The North and South Poles are the coldest zones on Earth with long, dark winters and short, milder summers that experience 24-hours of sunlight at their peak.



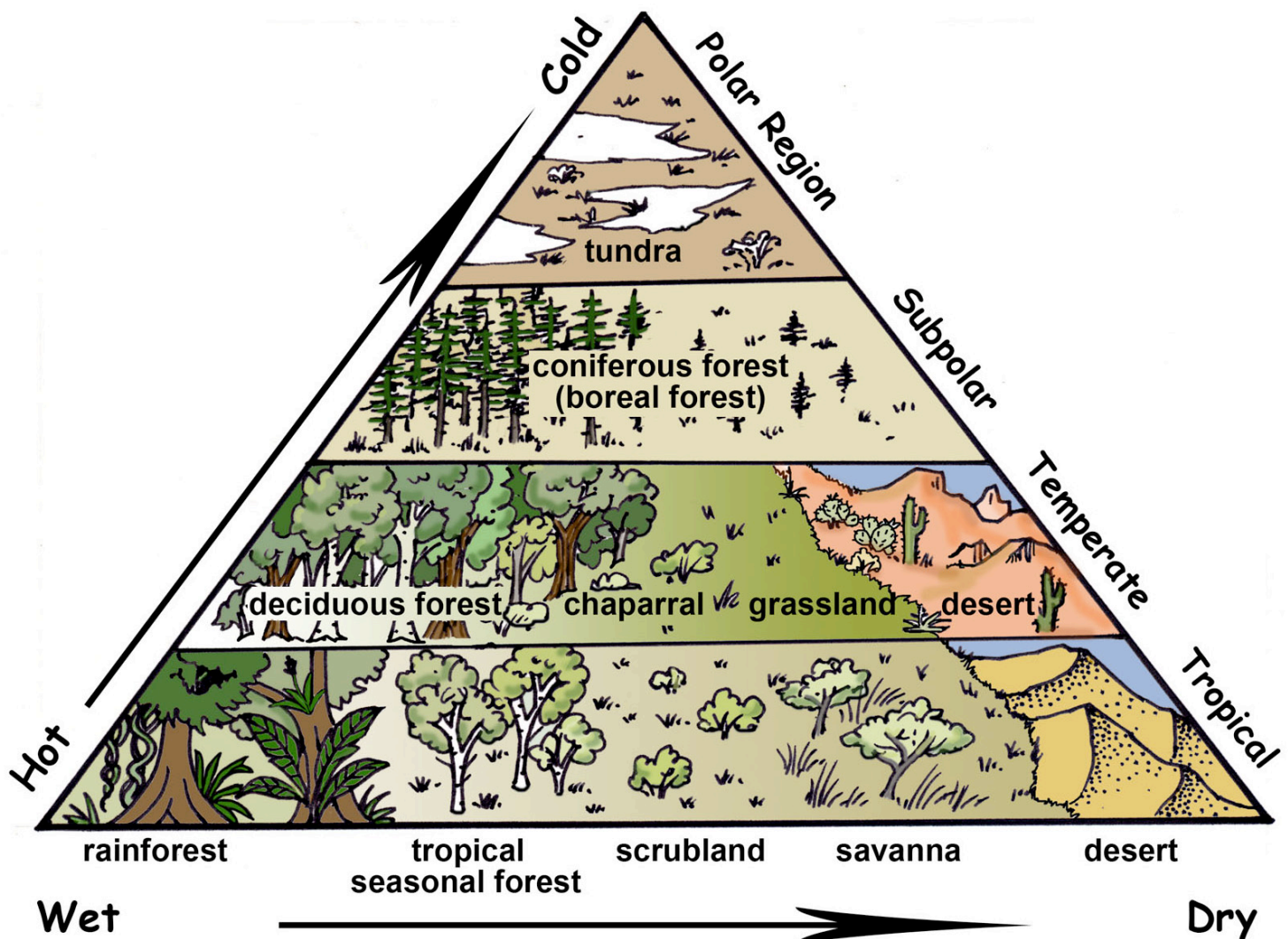
Yet not all areas in each of these zones have exactly the same climate. Different **landforms**, such as mountain ranges and large bodies of water can affect the climate. For example, a mountain range can block rainfall from reaching an area, making it a dry, desert region. This is called a *rain shadow*. Being near the ocean can also affect the climate of an area. The ocean holds its temperature longer than land, so coastal regions tend to be milder – cooler in the summer and warmer in the winter, than inland regions. Even **altitude** can affect climate. One tall mountain can have several climate zones and as a result several biomes. At its base it can have mild, temperate forests, while the top is a cold, windswept tundra biome.

So the locations of different types of biomes depend on the **climate, landforms and altitude**. The basic biomes types include: Desert, Grassland, Temperate forest (deciduous), Taiga (Boreal Forest), Tropical Rainforest, Temperate Rainforest, Tundra.

A more in depth look shows us there are closer to 12 major biomes:

- Arctic Tundra
- Boreal Forest (Taiga)
- Temperate Deciduous Forest
- Temperate Grasslands
- Dry Woodlands and Shrublands (Chaparral)
- Desert
- Tropical Rainforest
- Tropical Deciduous Forest
- Tropical Scrubland
- Tropical Savanna
- Semidesert/Arid Grassland
- Polar Ice
- Mountains (In each of the above)

Look at the chart below to see how climate - rainfall and temperature affects where each biome is located.



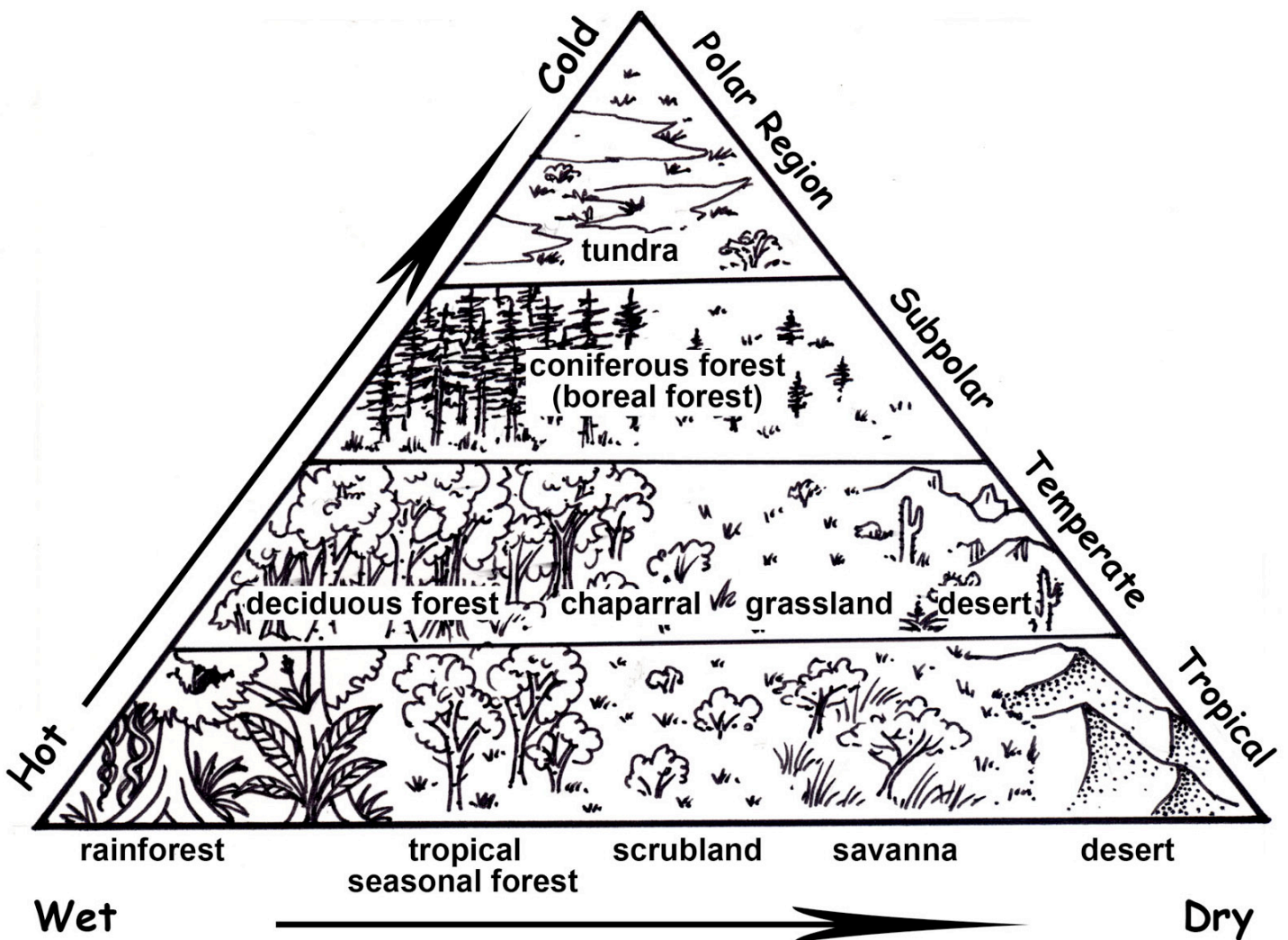
Answer the questions to understand how climate - rainfall and temperature affects where each biome is located.

1. Looking at this chart, you can see that the hottest regions (bottom row) have many biomes types depending upon the amount of rainfall. Can you list from the most rainfall (wettest) to the least rainfall (driest) what kinds of biomes you would find in this hottest region? \_\_\_\_\_

2. The regions with the most rainfall (wettest) have the richest plant life (left side). Looking at the chart, can you name the these richest biomes going from the hottest locations to the coldest? \_\_\_\_\_

3. Where might you find the "tropical desert" as seen on the chart? \_\_\_\_\_

4. Where might you find the coldest desert as seen on the chart? \_\_\_\_\_



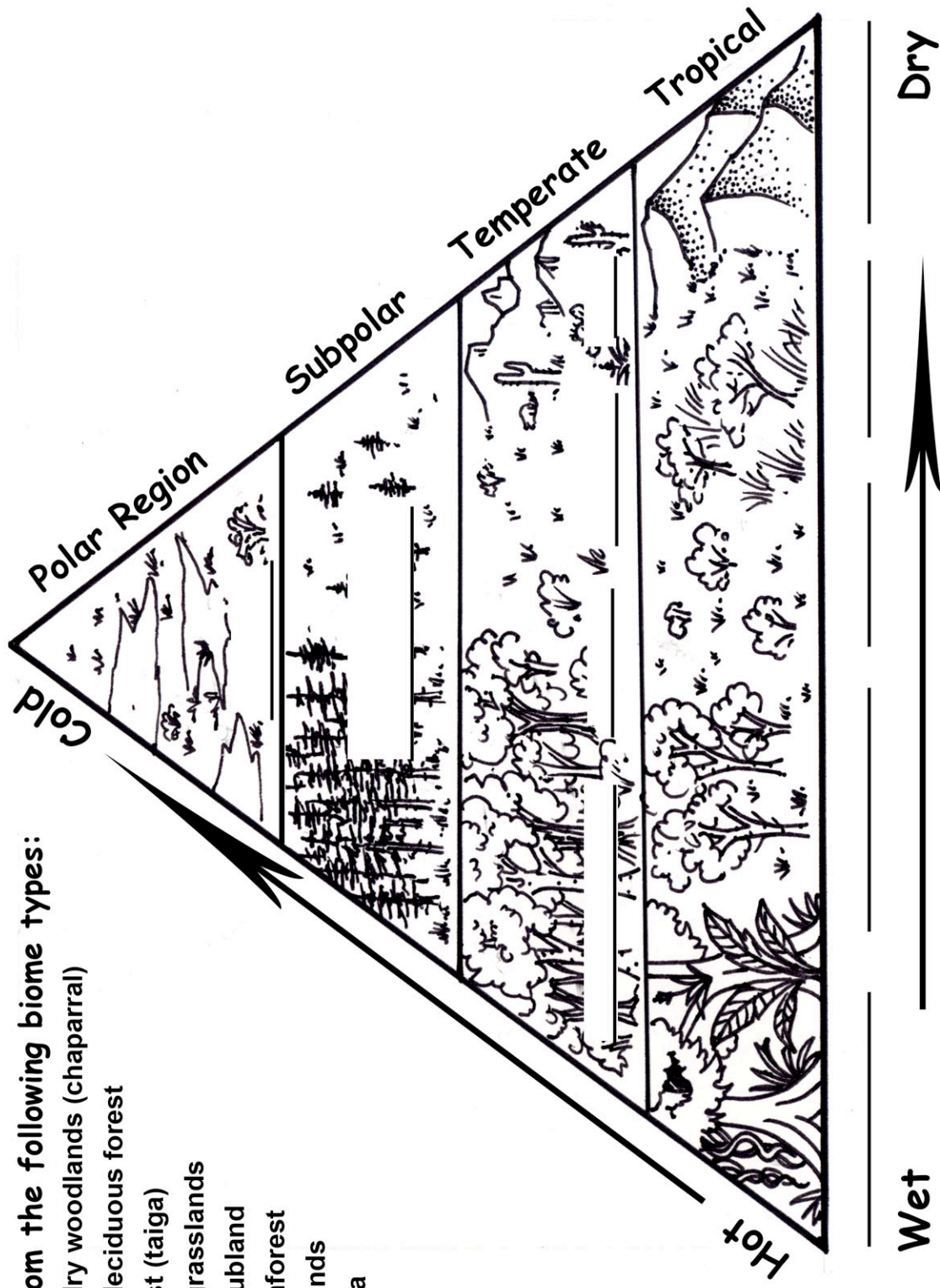
# Biomes on Earth

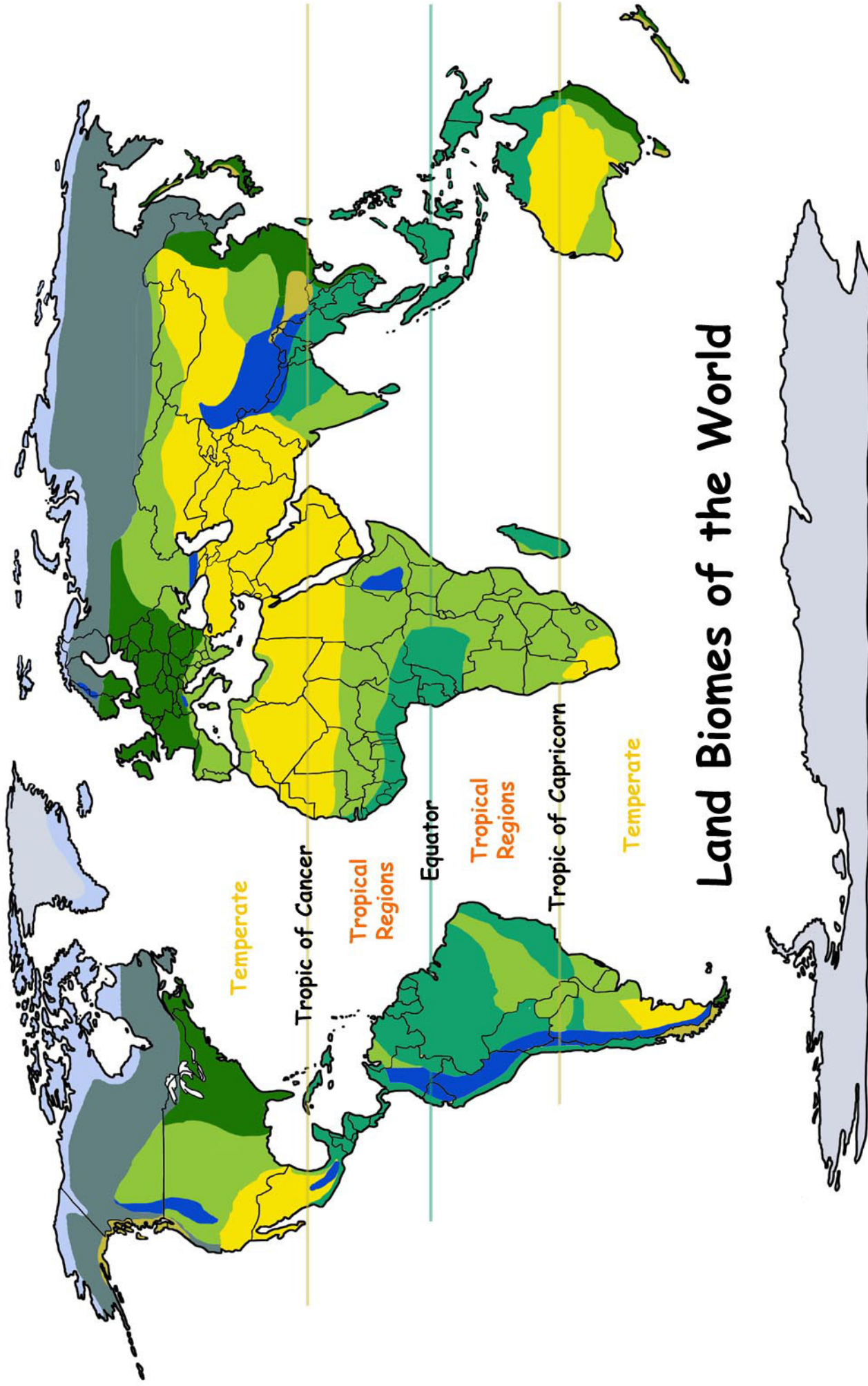
Biomes were formed by climate (rain and temperature) and location on Earth (tropics to polar regions).

Label the biomes that would form below, given the climate and location.

Choose from the following biome types:

- temperate dry woodlands (chaparral)
- temperate deciduous forest
- boreal forest (taiga)
- temperate grasslands
- tropical scrubland
- tropical rainforest
- arid grasslands
- arctic tundra
- savanna
- desert





# Land Biomes of the World

Tundra (Boreal Forest)	Taiga (Boreal Forest)	Temperate Forest	Tropical Rainforest	Grasslands	Temperate Rainforest	Desert	Mountains
Light Blue	Grey	Dark Green	Dark Green	Light Green	Olive Green	Yellow	Blue