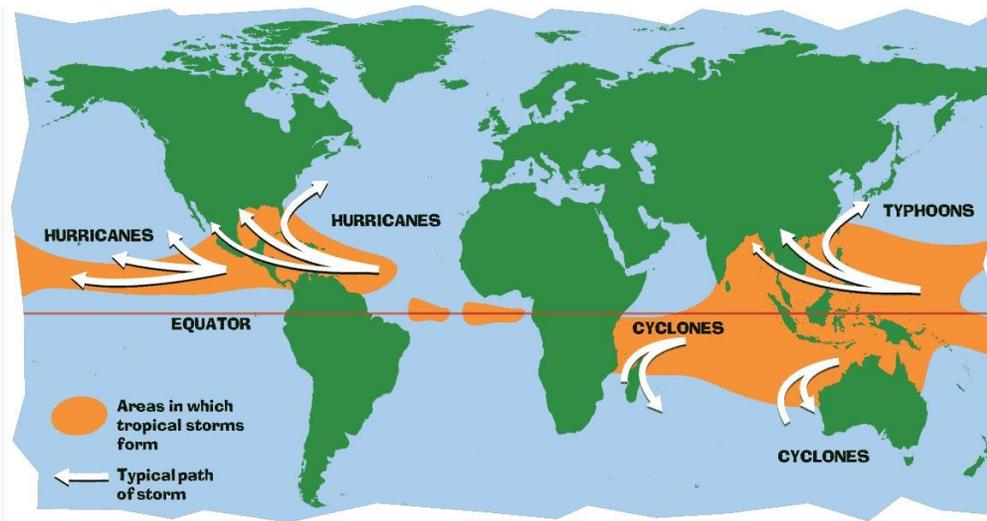# Lesson 05: Biomes of the World

Lesson Objectives:

- Students will apply their knowledge of maps to give information about biomes in a selected country.
- Students will synthesize information from more than one map to provide information about the biomes of a given country.
- Students will define the terms flora and fauna.
- Students will characterize an estuary as being salt water or freshwater.
- Students will apply their knowledge of biomes to predict the type of biome to be found in a given area.
- Students will conduct research and summarize the characteristics of the Earth's major biomes.

Simply put, a biome is a type of environment found on earth. Biomes can be classified in different ways, but here are six main types: Freshwater, Marine, Desert, Forest, Grassland, Tundra. Each biome has unique characteristics and life forms. You may live in or near one or more different types of biomes.

Freshwater

Freshwater biomes are ponds, lakes, streams, rivers, and wetlands. Freshwater areas support many different species, and humans need access to fresh water wherever they live, but human activities have also polluted many sources of fresh water.

Marine

Oceans cover most of the earth's surface. This biome is home to many, many different life forms. Obviously humans can't live in a marine biome, but we do interact with oceans and seas in many ways. Oceans are crucial to food production and shipping, as well as providing many other natural resources.

Desert

Deserts are arid areas, but they look more barren than they actually are. Deserts do support many different life forms, but flora and fauna tend to be more sparse. Desert biomes can be quite barren and sandy, like the Sahara desert, or they can support certain types of life that don't mind dry conditions. Desert scrub areas support many plants and animals like cacti, lizards, insects, small mammals, and Joshua trees.

Forest

Forests can be divided into several different categories. Rainforests occur in both tropical and temperate areas. Taigas are pine forests, usually found at high altitudes or in the north. Life forms in deciduous forests adapt to changes in the seasons.

Grassland

Grasslands are found on every continent except Antarctica. Grasslands generally see less rainfall than forested areas, and often support herds of grazing animals.

Tundra

Tundras are found in the coldest areas of the world. A thin layer of soil covers permanently frozen ground, and most of the water is frozen in the tundra, so the tundra supports plants an animals that need very little nutrients to survive. Tundras can be described as cold deserts.

Check out [this map](#) of biomes of the world.

Grading Rubric:

 *Note: Your grade will be calculated by the sum of the points earned for each question. Points are earned according to the chart below.

To get a 10: A total score of 10.

To get a 9: A total score of 9.

To get an 8: A total score of 8.

To get a 7: A total score of 7.

To get a 6: A total score of 6.

To get a 5: Any score lower than a 6; Plagiarism – purposeful or mistaken, which will lower your final grade for the course (So, be very careful when posting your work!); lack of effort, disrespect, or attitude. Lesson requirements have not been met.

Map Skills (Total content points possible = 1)	Answer is clearly written and includes all 4 parts of the question. **1 point**	Answer is clearly written and includes all 4 parts of the question. May have 1 factual omission or error. **.5 point**	Answer is not clearly written. There are several factual omissions or errors. **0 points each**
Vocabulary (Total content points possible = 2.5)	Answer is clearly written and includes examples. **.5 point each**		Answer is not clearly written. There are several factual omissions or errors. **0 points each**
Research (Total content points possible = 6)	Answer is clearly written and includes all 5 points of the question. There are no factual errors. **1 point each**	Answer is clearly written and includes all 5 points of the question. May have 1 factual omission or error. **.5 point each**	Answer is not clearly written. There are several factual omissions or errors. **0 points each**
Grammar (Total grammar points possible = .5)	Answered using complete sentences with no grammatical or spelling errors. **.5 point**		Contains more than 2 spelling and/or grammar errors. **0 points**

Assignment:

Map skills

1. Compare the three maps of Nigeria below, then answer the following questions. Please be sure to do the following:

-Use the maps attached to the question.

-Keep in mind that low elevation areas are near the coast. Higher elevation areas are inland.

-To answer question c, it will probably be necessary to take a look at both the political and biome map. When looking at the political map, take note of which sections of Nigeria seem to have the most roads and cities.

- Nigeria- Shaded Relief
- Nigeria- Biomes
- Nigeria- Political

a. What type of biome is found in the lowland areas?
b. What type of biomes are found in the higher elevations?

c. What biomes have the highest population density?

d. What biome exists in Plateau State (which is named after the Jos Plateau)?

Vocabulary

2. Give one example of flora and one example of fauna in a wetland.

3. Is an estuary a marine or freshwater biome? Explain your answer.

4. Give the name and location of a plain with a savanna biome.

5. Which continent is not part of the ecumene?

6. What biome would you most likely find on a mountain peak?

Research

Resources ⟹

For each of the six biomes mentioned in the lesson give the following information:

- name one plant and one animal species that lives there,
- describe the climate,
- list the continents where this biome is found,
- explain how humans have adapted to live within this biome.
- identify one natural resource that is valuable to humans that comes from this biome.

Here are the six biomes you need to cover. You can use this [excellent site](#) to help you get started in your research. (You will notice that the biomes are divided up differently on that site than they are in this lesson.)

7. Freshwater (choose one type of freshwater biome, such as a pond, lake, or wetland.)

8. Marine

9. Desert (choose one type of desert biome, such as scrub desert or chapparal)

10. Forest (choose one type of forest: Rainforest, Deciduous forest, or Taiga)

11. Grassland

12. Tundra