

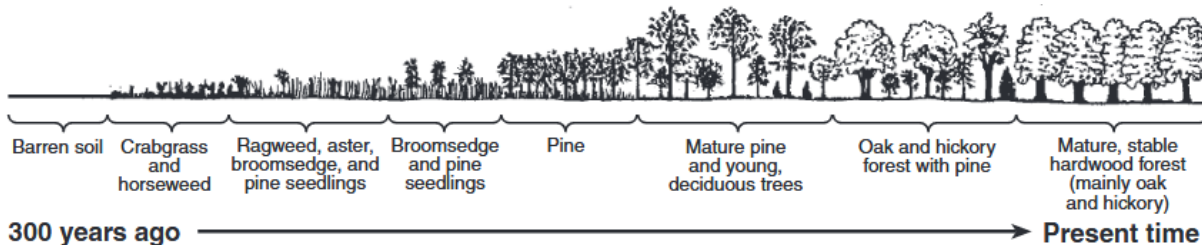
Biomes Assignment

Directions: Please answer the following questions about biomes on separate paper in complete sentences. Please note that you may have to use the Internet to find some of this information.

1. What is the most important limiting factor of a terrestrial biome? Explain your answer.
2. Identify the biome we live in. What are the dominant plants (flora) and animals (fauna) in our biome?
3. Describe what permafrost is. Why is permafrost a limiting factor in determining what flora can grow in this tundra biome?
4. Describe the effect latitude (distance north or south from the equator) has on biomes/.
5. How does altitude affect biome development?
6. Compare the effects of altitude and latitude of terrestrial biomes.
7. What is a wetland?
8. What is eutrophication and how does it occur?
9. How can farming harm the water supply?
10. What a mangrove forest?
11. How is a coral reef formed?
12. What is bioluminescence?

Directions: Please read each question carefully and write the number of the correct choice on your answer paper.

Base your answers to questions 1-3 on the diagram below, which shows the sequence of plant communities that have occupied land that was left barren 300 years ago and on your knowledge of biology.



1. Dominant plant species in the climax community include

1 pine trees	2 hickory trees
3 mosses	4 lichens
 2. Which plant species represent pioneer organisms?

1 broomsedge and pine seedlings	3 crabgrass and horseweed
2 ragweed and aster	4 oak and hickory trees
 3. In which biome would this sequence of plant communities most likely be found?

1 taiga	3 tropical rain forest
2 tundra	4 temperate deciduous forest
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4. Which type of biome occupies the largest area of Earth?

1 marine	3 tropical rain forest
2 grassland	4 temperate deciduous forest
 5. Many more species of plants and animals live in a tropical forest than live in a desert. This difference is most likely due to the fact that, compared to a tropical forest, a desert

1 has less available sunlight	3 contains less water
2. contains soil with sand	4 has more CO ₂ in the atmosphere

Base your answers to questions 6-7 on the information below and on your knowledge of biology.

An ecologist passed through different biomes while driving up a high mountain. At the lowest elevation (sea level), the ecologist saw deep-green vegetation, many birds, and small mammals. At the highest elevation, the ecologist saw bare rock, very little vegetation, and few birds

6. Which sequence of biomes did the ecologist most likely pass through while driving from the lowest elevation to the highest elevation of this mountain?

- 1 grassland → tundra → taiga
2. taiga → tundra → temperate deciduous forest
3. tundra → temperate deciduous forest → taiga
4. temperate deciduous forest → taiga → tundra

7. Which change was most likely encountered as the ecologist drove up the mountain?

- 1 an increase in the diversity of species
- 2 an increase in the amount of atmospheric oxygen
- 3 a decrease in temperature
- 4 a decrease in latitude

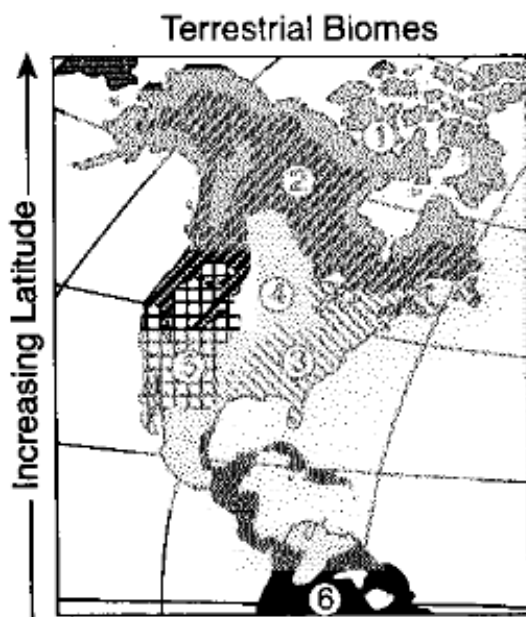
8. Which two factors are abiotic limiting factors that affect organisms in marine biomes?

- 1 amount of algae and wide temperature variations
- 2 amount of carbon dioxide and variety of producer organisms
- 3 amount of moisture and variety of consumer organisms
- 4 amount of oxygen and concentration of dissolved salt

9. The type of climax vegetation associated with terrestrial biomes are primarily determined by yearly temperature variation and the

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|-------------------------------------|------------------------------|
| 1. the presence of animal predators | 3. number of deciduous trees |
| 2. presence of climax fauna | 4. annual precipitation |

Directions (10-12): The map below illustrates the general location of various terrestrial biomes in select areas of North, Central, and South America. For each statement in questions 10-12 select the biome chosen from the map below that is most closely associated with that statement.



10. Snowy owls hunt mice that try to escape among the lichens growing on ground that has permanently frozen subsoil.

11. Prairie dogs hide in their burrows in a vast area of tall grasses that provide food for herds of pronghorn antelope and bison.

12. Deer nibble on low-lying shrubs while cardinals sit on branches of trees in a large deciduous forest.