

LESSON

What are biomes?

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The biosphere is divided into major areas called **biomes** [BY-ohms]. A biome is determined mainly by its climate-like temperature and rainfall. Each biome has a different climate. Climate, in turn, affects the soil. The earth's land areas are divided into six major biomes. They are:

TUNDRA Most of the year, the tundra is bitterly cold and covered with snow and ice. The ground remains permanently frozen. It is called permafrost. Only certain small plants such as mosses and grasses can grow in the tundra. Some animals, like reindeer and foxes, move in during the growing season. But they move out again as the frigid weather approaches. Very few animals live year-round in the tundra.

CONIFEROUS FOREST Conifers are cone-bearing trees such as pines and fir trees. Conifers make up the coniferous forest biome. It is an area with a cold climate. Conifers form dense forests. The tree tops block out much of the sunlight. Grasses and smaller trees cannot grow. Only some shrubs, ferns, and mosses thrive. Coniferous forests are "home" for many animals, such as squirrels, moose, birds, and insects.

DECIDUOUS FOREST Deciduous trees such as maples and oaks shed their leaves in the fall. Deciduous forests thrive in moderate climates. Summers may be hot and winters may be cold. But temperatures do not get too hot or too cold for a very long time. Deciduous forests receive a good supply of water. They form dense forests. A deciduous forest provides habitats for many kinds of animals.

TROPICAL RAIN FOREST A tropical rain forest is very warm and very moist all the time. It receives plenty of sunlight and rain. This environment is excellent for plant growth and soil development. Plants grow thick and tall. Tropical rain forests are found in areas near the equator. Rain forests support more plant life and animal species than any other biome.

GRASSLANDS The chief plant life in the grassland is grass. Grassland and deciduous forest temperatures are about the same. But grasslands do not receive as much rainfall. Grasslands get enough rain to support grasses—but not trees. Grasslands are excellent for grazing animals. The soil of grass areas is very rich. Wheat and corn are grown here. Grasslands also are "home" for many small, burrowing animals.

DESERT A desert biome is very dry. It receives very little rainfall. Deserts are very hot during the day, but they are cold at night. Desert soil is very dry and poor. Because of this, only a few kinds of plants grow in the desert. And, very few animals can survive in the desert.

MORE ABOUT BIOMES

The map below shows the major land biomes of the earth.

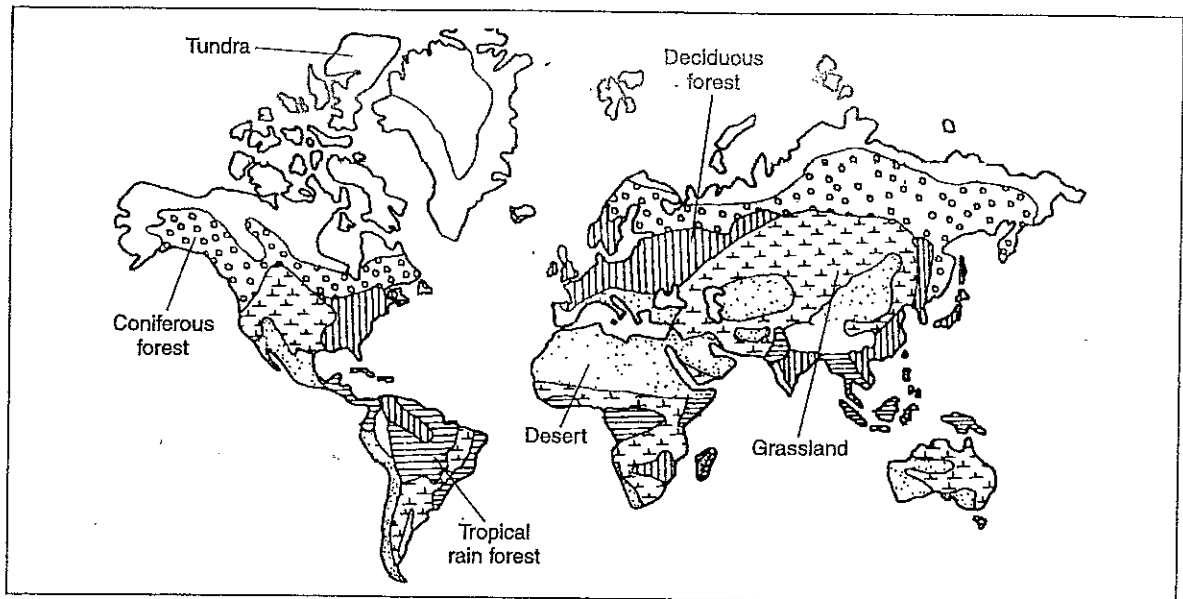


Figure A

1. In which biome do you live? _____

COMPARING BIOMES

The chart below shows the climates of the major land biomes. Study the chart and then answer the questions.

BIOME	AVERAGE YEARLY RAINFALL	AVERAGE YEARLY TEMPERATURE RANGE
Tundra	less than 25 cm (10 in.)	-25°C–4°C (-13°F–39°F)
Coniferous forest	35–75 cm (15–30 in.)	-10°C–14°C (14°F–57°F)
Deciduous forest	75–125 cm (30–50 in.)	-6°C–28°C (43°F–83°F)
Tropical rain forest	200–450 cm (80–175 in.)	25°C–28°C (77°F–83°F)
Grassland	25–75 cm (10–30 in.)	0°C–25°C (32°F–77°F)
Desert	less than 25 cm (10 in.)	24°C–40°C (75°F–104°F)

2. What is the average yearly temperature range of the tropical rain forest biome?

3. What biome gets between 75 and 125 cm of rainfall per year? _____

WHAT DO YOU KNOW ABOUT BIOMES?

The photographs show the six major land biomes. Identify each biome. Write the name of the correct biome on the line below each photograph.

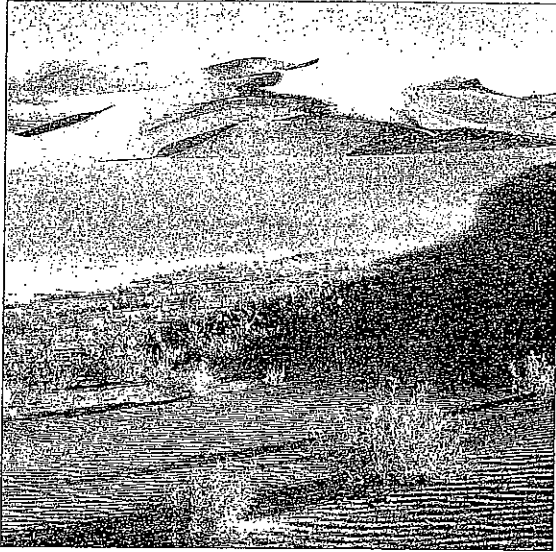


Figure B

1. This photograph shows a _____ biome.

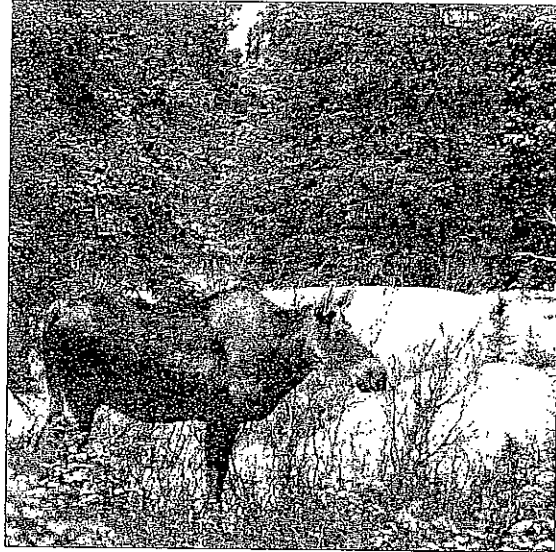


Figure C

2. This photograph shows a _____ biome.

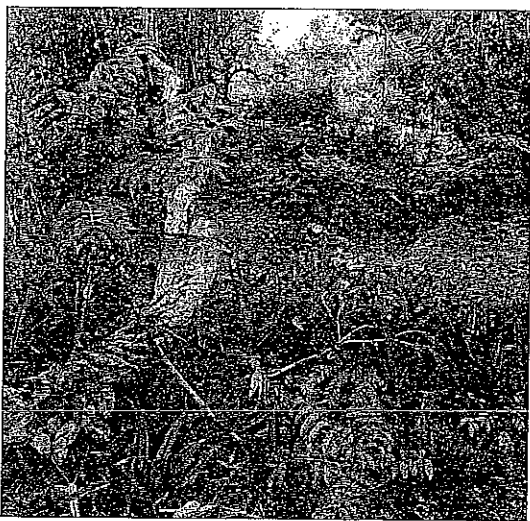


Figure D

3. This photograph shows a _____ biome.



Figure E

4. This photograph shows a _____ biome.

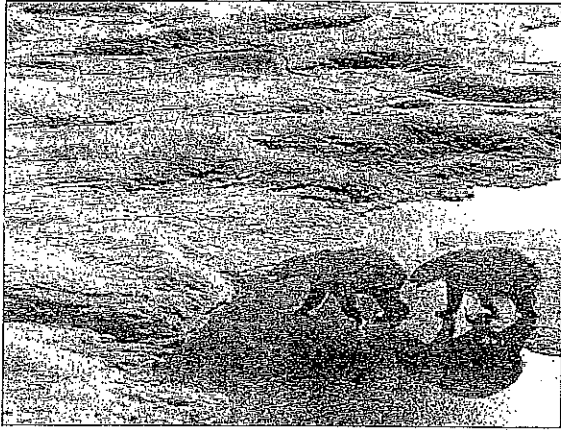


Figure F

5. This photograph shows a _____ biome.

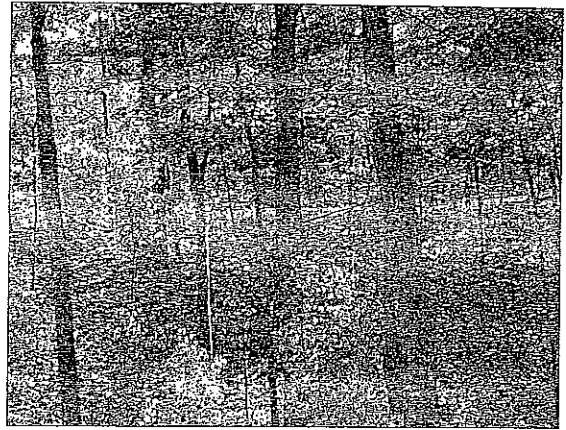


Figure G

6. This photograph shows a _____ biome.

In the space provided, write the letter of the word that best completes each statement.

- _____ 1. Permafrost occurs in
- a) deserts.
 - b) the tundra.
 - c) coniferous forests.
 - d) tropical rain forests.
- _____ 2. Trees such as pines and firs make up
- a) tropical rain forests.
 - b) the tundra.
 - c) coniferous forests.
 - d) grasslands.
- _____ 3. The biome which supports more plant and animals species than any other is the
- a) tropical rain forest.
 - b) deciduous forest.
 - c) coniferous forest.
 - d) grasslands.
- _____ 4. Very few animals can survive in
- a) tropical rain forests.
 - b) deserts.
 - c) grasslands.
 - d) deciduous forests.
- _____ 5. Trees that shed their leaves in the fall make up
- a) the tundra.
 - b) coniferous forests.
 - c) grasslands.
 - d) deciduous forests.

Study the characteristics of land biomes in the chart below. Complete the chart by placing a check mark in the correct column.

Land Biomes							
	Characteristics	Tundra	Coniferous forest	Desert	Deciduous forest	Grassland	Tropical rain forest
1.	Very hot days and very cool nights						
2.	Trees with needle shaped leaves grow						
3.	Used as farmland						
4.	Hot and wet all year						
5.	Permafrost						
6.	Maple and oak trees grow						
7.	Cacti grow						
8.	Spruce and moose are common						
9.	Wheat and corn grow						
10.	Jungles						
11.	Trees lose leaves in fall						
12.	Conifers grow						
13.	Reindeer live						

