

Discussion Guide for

THE WORLD'S BIOMES: DESERT TO RAINFOREST

Objectives

After viewing this program, students will be able to:

- Define the word biome.
- List the four basic requirements of life.
- Describe some of the ways the physical environment effects the living environment.
- Explain how latitude, elevation, and proximity to oceans and mountains effect the climate of a region.
- Describe life on alpine and arctic tundras.
- Explain the major differences between coniferous and deciduous forests.
- Contrast and compare temperate and tropical rainforests.
- Describe some of the adaptations plants and animals have made in order to survive on desert biomes.

About This Program

This program is put of the AIMS Interactive Science Essentials Series. This twenty-four part series covers four subject areas-Earth Science, Biology, Physics, and Chemistry. There are six programs in each subject area. The individual programs are divided into randomly accessible sections. A glossary provides written definitions of terms used in the program, and in most cases will run a section of the video where the word is used in context, A script of the narration is accessible, as well as a bulletin board containing a general introduction to the subject.

A quiz allows the student to test their knowledge and the results are recorded for you. In the teacher's section you can view each student's rest responses and edit or create your own quiz and test questions.

Overview

The World's Biomes: Desert to Rainforest is part five of the Biology Essentials series which examines modern day biology. The program begins by introducing students to how various physical forces determine the climate of a biome and, in turn, the density of life within a given biome. The program takes students on a journey through rainforests, deserts, grasslands, coniferous forests, alpine tundra, deciduous forests, and marine and freshwater biomes. Throughout the journey, the adaptations that different organisms make to their environment are highlighted.

Teacher's Preparation

Before the student uses the program set up the computer so that they can easily reach the mouse and the keyboard. Load the CD-ROM into the computer so that it is ready for the student to begin using. While students are able to work at their own pace, some students may benefit from using the program more than once.

Suggested Discussion Questions

1. What happens when one of the requirements of life isn't available? List areas of the Earth where one of the requirements of life is missing?

- 2. What types of biomes are located near where you live?
- 3. Would you expect arctic or alpine tundra to receive more precipitation annually?
- 4. Why don't all species live in the tropical rainforests where the requirements of life are most abundant?
- 5. If you had to live off the land which biome do you think you would be able to do the best in? The worst?
- 6. Explain why the human population isn't greater in tropical rainforests.
- 7. Describe the Earth's basic weather patterns.
- 8. What are the advantages and disadvantages to living on the land? In the water?
- 9. Explain why elephants have big ears and a long trunk? Why don't elephants roam North America? Would they do well?
- 10. Why don't one or two species of plants or animals dominate a blome? Which biomes have the most diversity? The least?

Vocabulary

atmosphere

biomes

catfish

coniferous

coral reef

deciduous

evergreen

grasslands

Gulf Stream

kelp

latitude

nocturnal

Pacific

reptiles

sahara

savannas

Tropics trout

tundra

Additional Benefits

Students will be able to:

- List the various types of grasslands and the types of animals that live on them.
- Contrast and compare marine and freshwater biomes.
- Explain the difference between oligotrophic and eutrophic bodies of water and the differences in the plant and animal life in each of them.

Programs Details

Length:

30 minutes

Subject Areas:

Biology

Audience Levels:

Junior-Senior High

Order Number:

1-9079SG

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