

High School Science Virtual Learning

College Biology Chapter 18 Recap

May 20, 2020



High School College Biology Lesson: May 20, 2020

Objective/Learning Target:

Students will be able to discuss the key characteristics of ecology, different biomes, and the evolution of adaptations and discuss human impacts on ecosystems and the biosphere.



Let's Get Started:

- 1. Define biotic and abiotic factors.
- 2. What does the ecosystem level of classification have in common with the community level of classification? What does the ecosystem level include that the community level does not?



Answers:

- 1. Biotic factors are the living parts of the ecosystem. Abiotic factors are the nonliving (an never were living) parts of the ecosystem.
- 2. All biotic factors of the area; the abiotic factors of the area.



Lesson Activity:

- 1. Read over the Chapter 18 Notes. (Linked Here)
- 2. Watch this Crash Course video on <u>Ecology</u>. Watch this Crash Course video on the <u>Water Cycle</u>. Watch this Crash Course video on <u>Human Impacts</u>.



Practice:

- 1. What is are some things that all living things require in order to live?
- 2. Why is solar energy such an important resource for most ecosystems?
- 3. What is a wetland and what purpose do they serve?



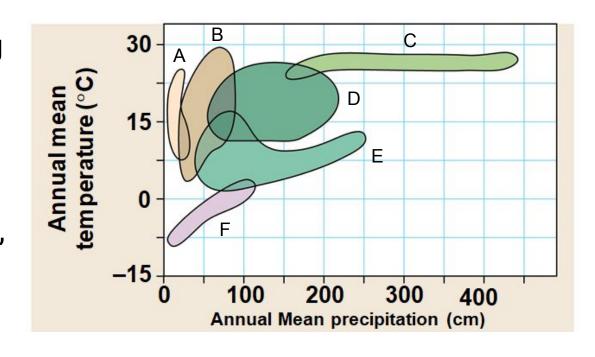
Practice Answers:

- 1. All living things require some form of usable energy and water.
- Most ecosystems are reliant on solar energy to provide the energy source to producers which make up the base of the food chain. Without solar energy most ecosystems would not exist.
- 3. A wetland is a transitional biome between an aquatic and terrestial biome. Wetlands provide a home for aquatic plants, a pitstop for migratory birds and help store and filter contaminants out of water.



More Practice:

1. Identify the following biomes on the graph below: tundra, northern coniferous forest, desert, temperate grassland, temperate broadleaf forest, and tropical forest.





More Practice:

- 2. What are phytoplankton? Why are they essential to other oceanic life?
- 3. What populations of organisms are most likely to survive climate change via evolutionary adaptation?
- 4. What human activity is responsible for the greatest amount of deforestation?
- 5. What is the major source of CO₂ released by human activities?



More Practice Answers:

- 1. A. desert; B. temperate grassland; C. tropical forest; D. temperate broadleaf forest; E. northern coniferous forest; F. tundra
- 2. Phytoplankton are photosynthetic algae and bacteria. They are food for animals in the photic zone; those animals in turn may become food for animals in the aphotic zone.
- 3. Populations of organisms that have high genetic variability and short lifespans.
- 4. Agriculture
- 5. Burning fossil fuels



Review Tools:

- -Kahoot 1
- -Kahoot 2
- -Kahoot 3
- -Kahoot 4
- -Mr. Anderson videos about <u>ecology</u>, <u>biomes</u>, and <u>human</u> <u>impacts</u>