

Reading Guide Packet: Chapter 3: The Biosphere

Biology B

Name _____ Period _____

Ch 3.1: Introduction to Global Systems

1. What is *ecology*? With what parts of the Earth is *ecology* concerned?
2. What is a compelling reason to study *ecology*?
3. List and define 6 levels of ecological organization.
4. What are 3 main approaches that ecologists use to gather ecological data?
5. Compare and contrast *biotic* and *abiotic* factors.
6. Give an example of an *abiotic* factor that is strongly influenced by *biotic* factors.

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7. What are the 4 global systems that are considered in the Model of Earth Systems?

8. What is the purpose of the Model of Earth Systems?

Ch 3.2: Climate, Weather and Life

9. Compare and contrast *climate* and *weather*.

10. What powers and shapes the global climate system?

11. What determines Earth's average temperature?

12. What would result on Earth from an absence of the *greenhouse effect*?

13. Why does latitude affect the amount of solar energy received at that location?

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21. How many major *biomes* are described on Earth?

22. What 2 factors largely determine the plant and animal life found in a particular *biome*?

23. How are aquatic ecosystems described ecologically?

24. Compare and contrast the *photic zone* and the *aphotic zone*.

25. Why are *estuaries* important?