

Worksheet 3

1. Where does all energy in an ecosystem originate? _____

2. Why is sunlight important for the biosphere?

3. Does all energy released by the sun reach the Earth? Why or why not?

4. Why are the numbers of trophic levels in a food chain limited? (Hint: Think about energy transfer from one organism to another)

5. What does each of the following describe:

a) pyramid of energy? _____

b) pyramid of biomass? _____

6. How does energy availability affect the total mass of organisms in an ecosystem? (Hint: Think about the shape of a pyramid of biomass and energy transfer)

7. How is an organism's niche different from its habitat?

8. Why do organisms tend to have different niches?

9. How does competition arise between organisms?

10. How is intraspecific competition different from interspecific competition?

11. What is an invasive species? Provide an example.

12. State the three types of symbiotic relationship. Give two examples for each one.

13. Explain the role of decay in the cycling of organic matter.

14. Why is nitrogen required by living things?

15. Define nitrogen fixation. What are the two ways it happens?
