

Name: _____

Energy Flow & Ecosystem Reading Notes

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1. What provides energy for the earth?
2. Humans need _____ to survive.
3. Plants make their own food from sunlight in a process called _____ in which water & carbon dioxide combine to make _____ (sugar). Plants release _____ as a waste product.
4. In _____, cells convert food into energy.
5. EVERY _____ performs cellular respiration, even _____ cells.
6. Cellular respiration produces _____ as a waste product for plants to perform photosynthesis.

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7. The carbon dioxide and _____ cycle is critical to life on Earth.
8. **Abiotic means...
9. **Biotic means...

**You may have to use a dictionary to look up these words.

10. The nitrogen cycle has many steps. Summarize each step below:

a.

b.

c.

d.

e.

f.

11. While all _____ are made up of the same molecular building blocks, the blocks are arranged _____ in each organism.
12. Plants and animals need to _____ food for energy and make new molecules.
13. In humans, after the _____ breaks down each type of molecule, the parts are absorbed into the body. The different _____ take up the parts and use them for _____ (cellular respiration) or to make new _____.
14. Page 122 Choose one of the matter cycles (carbon dioxide/oxygen or nitrogen) and draw a picture of how it cycles between living and nonliving parts of an ecosystem. Label at least 1 abiotic and biotic factor in your drawing.

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15. An _____ consists of all the living and nonliving things in a particular area.
16. List some examples of biotic factors in the picture.
17. List some examples of abiotic factors that could be in the picture.
18. Ecosystems can _____ over time. For example, if a _____ has a significant change, it can be felt throughout the entire ecosystem.
19. What is a population?
20. Any change in a biological component of an _____ can lead to shifts in _____ of its _____.

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21. Disruptions to any _____ component of an ecosystem can lead to population shifts as well.
22. Observe the pictures on page 148. How do you think these changes impacted the populations in each ecosystem?
23. Ecosystems are amazingly _____ and can recover from a disturbance.

24. Look at the food chain on page 149. What do you think would happen if the beetle was removed from the ecosystem. Choose one answer and explain your reasoning.

- a. Plant population would increase; fish population would increase
- b. Plant population would decrease; fish population would increase
- c. Plant population would stay the same; fish population would decrease
- d. Plant population would increase; fish population would decrease

Why?

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Using the food web on page 150, choose an animal that will go extinct. Write your choice below:

Describe what would happen to the ecosystem without that population.