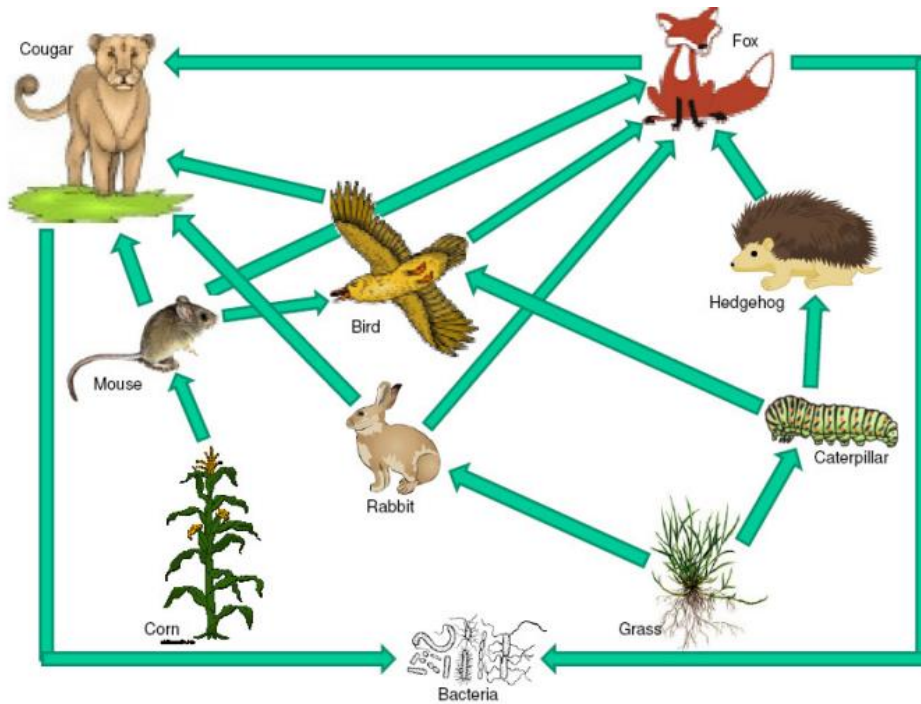


**Target Practice, Unit 9 Test, Topic #4 – Energy Transfer and Nutrient Cycles**



Refer to the food web above to answer the following questions.

1. List the **producers** shown in the food web:

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2. List the **consumers** shown in the food web:

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3. List the **decomposers** shown in the food web:

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4. List one food chain that is part of this food web (use arrows to show the transfer of energy).

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5. Which animals in the food web are **primary** (first level) consumers?

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6. Which animals in the food web are **tertiary** (third level) consumers?

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7. Which animal in the food web is the only **quaternary** (fourth level) consumer?

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8. Imagine that a landscaper was frustrated by caterpillars eating the grass of the lawns that he cared for. The landscaper decided to use a **pesticide** (a chemical that destroys pests) and successfully killed all of the caterpillars in the ecosystem. What organisms would be effected by the removal of caterpillars in the food web? Explain your answer.

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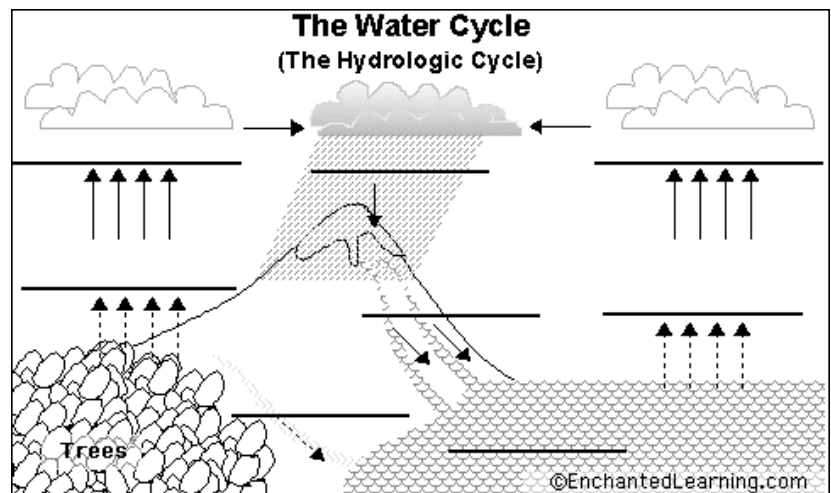
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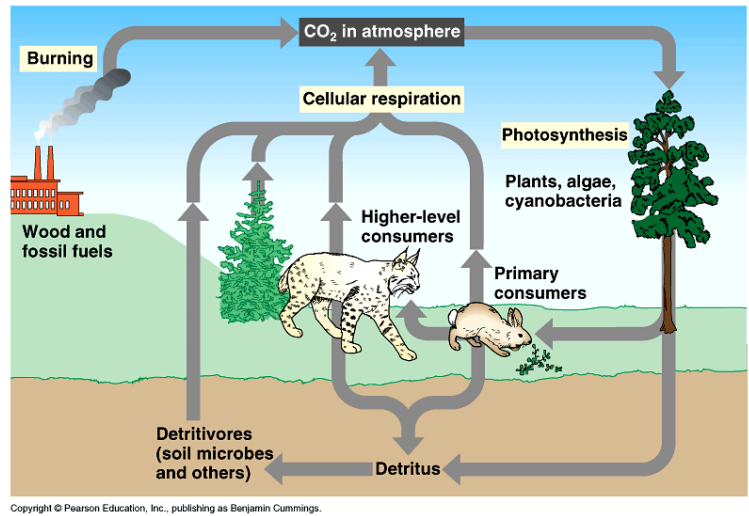
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9. Why will there be more caterpillars than hedgehogs in this community?

10. Label the following steps of the water cycle on the image to the right: Runoff, precipitation, evaporation, transpiration, condensation (used twice), runoff



11. Compare and contrast the roles of photosynthesis and cellular respiration in the carbon cycle.



12. Compare and contrast the roles of nitrogen fixation and denitrification in the nitrogen cycle.

