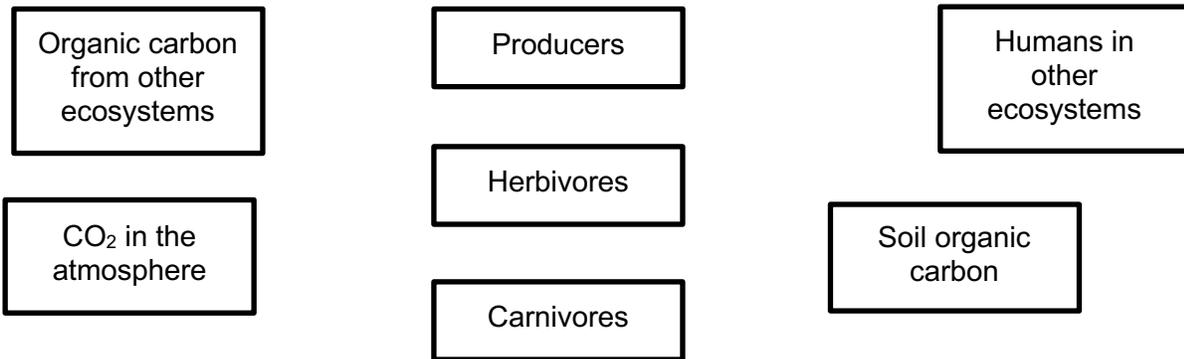


## 5.2: Forest Ecosystem Products and Services Worksheet

Answer these questions based on the Forest Ecosystem Services Reading, then share what you have learned with people who have read about other ecosystems.

### A. Carbon Fluxes in a Forest Ecosystem

1. The boxes below show the main carbon pools in (or connected with) a temperate forest ecosystem. Draw and label arrows to show the carbon fluxes for each of the processes in the table for Question 2.



2. Here are some processes that happen in a forest ecosystem. Describe how each process moves carbon from one pool to another.

<b>Process</b>	<b>How the Process Moves Carbon Between Pools</b>
The wind blows, carrying CO <sub>2</sub> into and out of the forest.	
Animals move and breathe	
Trees and other plants grow	
Animals eat the leaves of trees and other plants	
Leaves fall from the trees and decay	

3. The wind blows through the forest all year. If you could measure all the CO<sub>2</sub> in the wind blowing into the forest and compare it with all the CO<sub>2</sub> in the wind blowing out of the forest, what would you expect to find?

- a) There would be a little more CO<sub>2</sub> in the wind blowing in
- b) There would be a little more CO<sub>2</sub> in the wind blowing out
- c) There would be just as much CO<sub>2</sub> in the wind blowing in and the wind blowing out

Explain your answer.

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### B. Ecosystem Products and Services in a Forest Ecosystem

Explain how the Delaware-Catskill forest provides products or services that humans need.

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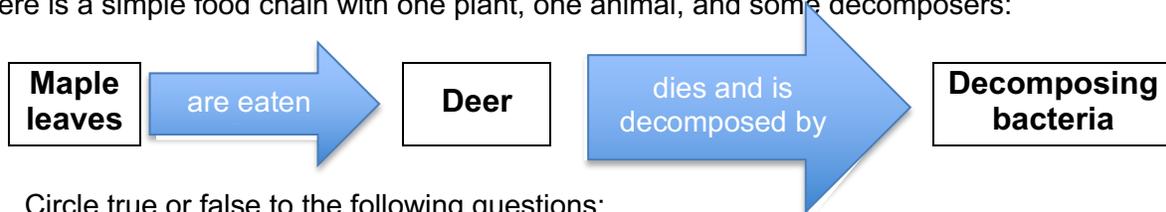
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### C. Carbon and Energy in a Forest Ecosystem

Here is a simple food chain with one plant, one animal, and some decomposers:



Circle true or false to the following questions:

True	False	The <b>molecules</b> in the deer came from the maple leaves without changing.
True	False	The <b>atoms</b> in the deer came from the maple leaves without changing.
True	False	The <b>energy</b> in the deer came from the maple leaves without changing.
True	False	The bacteria recycle <b>molecules</b> from the dead deer back to the maple leaves.

True	False	The bacteria recycle <b>atoms</b> from the dead deer back to the maple leaves.
True	False	The bacteria recycle <b>energy</b> from the dead deer back to the maple leaves.

How do **organic molecules** move through the forest ecosystem?

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How do **carbon atoms** move through the forest ecosystem?

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How does **energy** move through the forest ecosystem?

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**D. Something interesting that you learned**

What is something interesting that you learned about forest ecosystems?

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