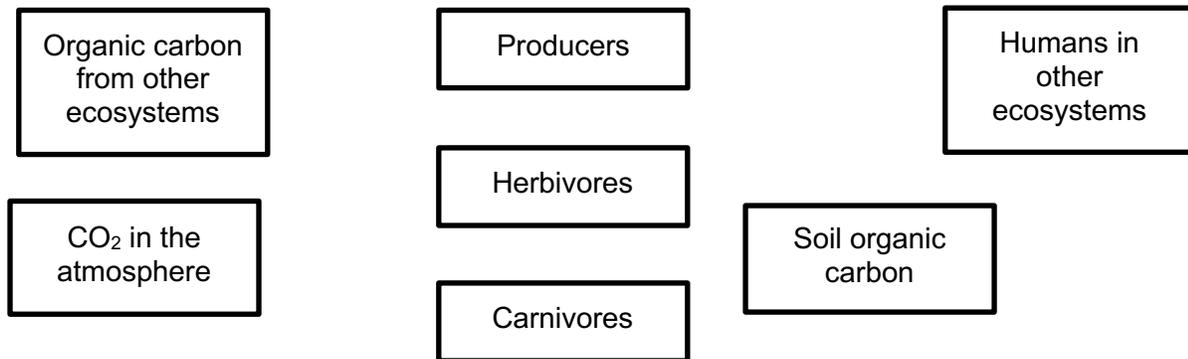Name _____ Teacher _____ Date _____

5.2 Corn Ecosystem Products and Services Worksheet

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

A. Carbon Fluxes in a Corn Ecosystem

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

Organic carbon from other ecosystems	Producers	Humans in other ecosystems
CO_2 in the atmosphere	Herbivores	Soil organic carbon
	Carnivores	

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

Process	How the Process Moves Carbon Between Pools
The wind blows, carrying CO_2 into and out of the corn field.	
Insects eat corn growing in the corn field	
Corn grows	
Dead corn plants decompose	
Humans harvest corn and use it to feed cattle	

3. The wind blows through the corn ecosystem all year. If you could measure all the CO_2 in the wind blowing into the corn ecosystem and compare it with all the CO_2 in the wind blowing out of the corn ecosystem, what would you expect to find?

   a) There would be a little more CO_2 in the wind blowing in
   b) There would be a little more CO_2 in the wind blowing out
   c) There would be just as much CO_2 in the wind blowing in and the wind blowing out

Explain your answer.

_____

_____

_____

_____

_____

B. Ecosystem Services in a Corn Ecosystem

Explain the main way that a corn field provides materials and ecosystem services that are useful to humans.

_____

_____

_____

_____

_____

C. Carbon in a Corn Ecosystem

In a corn field ecosystem, how would you expect the amount of carbon dioxide in the air to change in the **winter?** The amount of carbon dioxide in the air around the corn field (choose one):

   a. Would increase
   b. Would decrease
   c. Would stay about the same

Explain your answer. What might cause the amount of CO_2 in the air around the corn field to change during the winter?

_____

_____

_____

_____

_____

D. Something interesting that you learned

What is something interesting that you learned about a corn field ecosystem from your readings and discussion?

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