

Name: _____

Date: _____

Period: _____

Cycles of Matter

Week # _____

In our ecosystem, we have discussed the flow of energy, from the sun to producers, to various consumers. However, matter moves through the biosphere in a different way – matter cycles within and between ecosystems. The four main elements that make up living things – carbon, oxygen, hydrogen, and nitrogen – are recycled in closed loops among different parts of the biosphere. As matter moves through these cycles, it is transformed, or changed, but it is never created or destroyed. We will first discuss the four ways that matter can be cycled, and then study two cycles of matter.

Directions: Use p.80 to describe and give an example of the ways that matter is cycled in the table below.

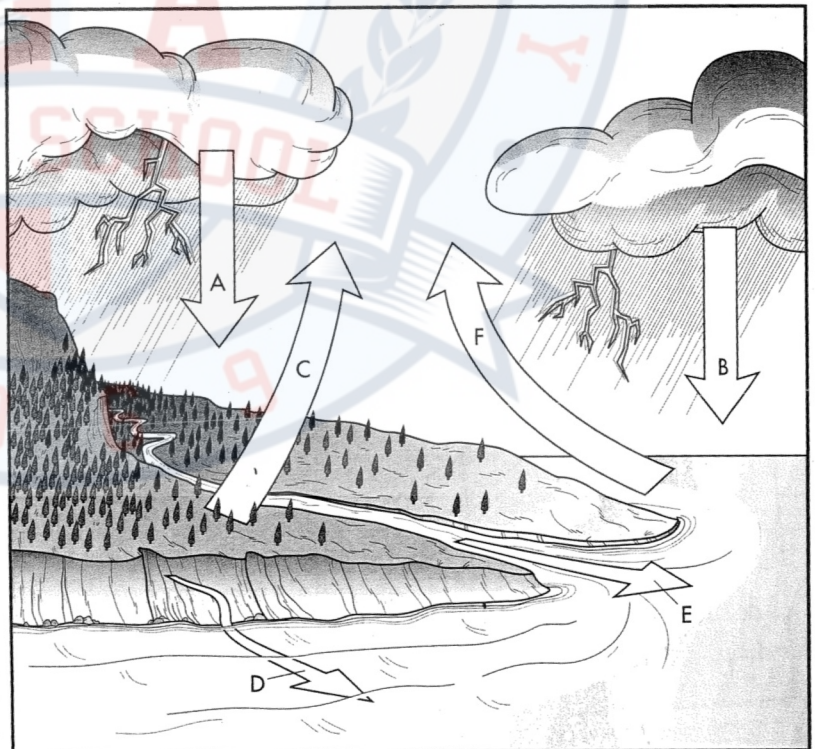
Process	Description	Example
Biological		
Geological		
Chemical/ Physical		
Human Activity		

Directions: For each cycle, match the card with the letter in the diagram. Copy the text on the card onto your worksheet. Then determine the process that matter is cycled.

The Water Cycle

Water continuously moves between the oceans, atmosphere, and land – sometimes outside living organisms and sometimes inside them. The diagram shows water moving within an ecosystem.

- A. _____
 Process: _____
- B. _____
 Process: _____
- C. _____
 Process: _____
- D. _____
 Process: _____
- E. _____
 Process: _____
- F. _____
 Process: _____



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The Carbon Cycle

Carbon is a major component of organisms, which is why they are often described as “carbon-based life.” Carbon is found in many important compounds. For example, we exhale carbon in the form of carbon dioxide (CO_2) and calcium carbonate (CaCO_3) is found in our bones. The diagram shows how carbon moves in an ecosystem.

A. Carbon dioxide is in the atmosphere.

Process: N/A

B. _____

Process: _____

C. _____

Process: _____

D. _____

Process: _____

E. _____

Process: _____

F. _____

Process: _____

G. _____

Process: _____

H. _____

Process: _____

I. _____

Process: _____

J. _____

Process: _____

K. _____

Process: _____

L. _____

Process: _____

M. _____

Process: _____

N. _____

Process: _____

O. _____

Process: _____

P. _____

Process: _____

