

Lab: Matter Cycles- Water & Carbon

Introduction:

During this activity you will be learning about the ways **carbon** and **water** are cycled through the environment. These **elements** and **compounds** are part of the biotic and abiotic factors found in every ecosystem. Each one of these elements/molecules are necessary for **homeostasis** (balance) to be maintained within ecosystems. *As you move through each cycle, think about what might happen if something occurred to interrupt the cycle.*

1. Differentiate which one of the above types of matter is an element and which one is a compound.
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Directions:

You will be using a website to complete this assignment:

<http://poster.4teachers.org/worksheet/view.php?id=123451>



Your task today is to use the links to explore each cycle. You will have one period to work on this with your partner, but you may access this assignment on the webpage at home if you need more time. Each student **must** take their *own* notes utilizing the graphic organizer:

- **Describe what is being cycled**
- **Explain/Illustrate how the cycle works**
- **Examples of how *each* element/molecule is cycled**
- **Why do we need the cycles of matter to maintain *homeostasis* (balance) within ecosystems and all of the *living parts of the earth* (biosphere) as a whole? What might happen if one of the cycles stopped working?**

Homework:

1. On poster board, draw a labeled diagram of one of the matter cycles we are studying. Use your notes to label the substances and use arrows to show how matter moves through the cycle and is changed.
2. On the back of your poster, attach a one paragraph essay explaining the importance of the cycle. Explain what would happen if your cycle no longer worked. Give an example of what would change in an ecosystem if your cycle no longer worked.

NOTES SHOULD BE SUCCINCT AND **IN YOUR OWN WORDS!** THESE ARE DESIGNED TO HELP **YOU** DIFFERENTIATE BETWEEN THESE CYCLES **AND** EXAMINE THEIR IMPORTANCE.

