

BIOLOGY WORKSHEET #1

Cycling of Matter

Name: _____ Date: _____

Important Terms: read and analyze these terms.

Term	Concept
matter	anything that has mass and takes up space.
nutrients	chemical substances that organisms need to sustain life.
energy	
biogeochemical cycles	the exchange of matter through the biosphere.
transpiration	the evaporation of water through minute pores, or stomata, in the leaves of plants
evaporation	the process by which water changes from a liquid to a gas or vapor
condensation	the process by which water vapor in the air is changed into liquid water
precipitation	any liquid or frozen water that forms in the atmosphere and falls back to the Earth
animal waste	the excreted materials from live animals
Nitrogen	a colorless, odorless, tasteless gas that is the most plentiful element in Earth's atmosphere and is a constituent of all living matter
Carbon Dioxide	a heavy colorless gas that is formed by burning fuels, by the breakdown or burning of animal and plant matter, and by the act of breathing and that is absorbed from the air by plants in photosynthesis.

Complete the sentences using the words above.

1. _____ and _____ are gases found in the atmosphere.
2. These processes allow the exchange of matter through the Biosphere. One of the processes, the water cycle, allows water to move from the earth to the atmosphere and back again through processes such as _____, where water turns into vapor and _____, where water changes from a gas into a liquid. Water that falls back to the earth is called _____. Some of this water is absorbed by plants and released into the atmosphere through the process of _____.

3. Matter is everything that has mass and takes up space. Living organisms are considered _____. Living organisms require _____ and _____ to sustain life processes. These nutrients are returned to the soil for plant use through _____.

Answer the following questions.

1. How do nutrients move through biotic and abiotic parts of an ecosystem?
2. Why are nutrients important to living organisms?
3. What are the biogeochemical cycles of nutrients?
4. What would happen if matter was bound (or trapped) in living matter and never recycled?
5. What does it mean to say that matter is recycled?
6. Why is it important to living organisms that nutrients are cycled?