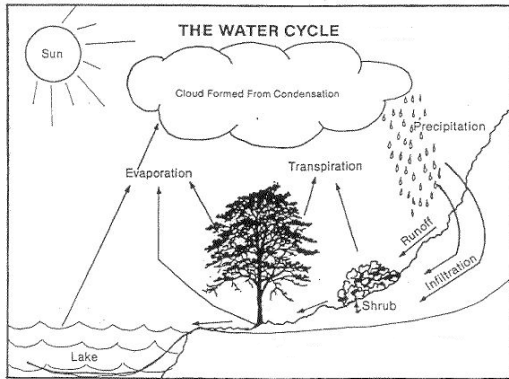
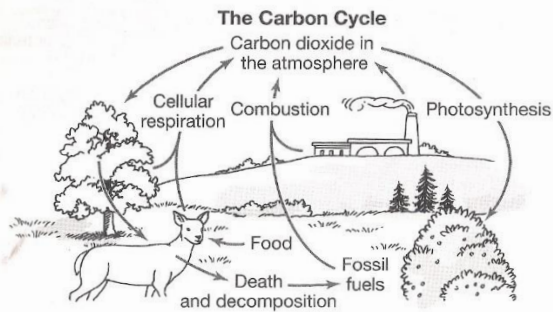


# Cycling of Matter in Ecosystems

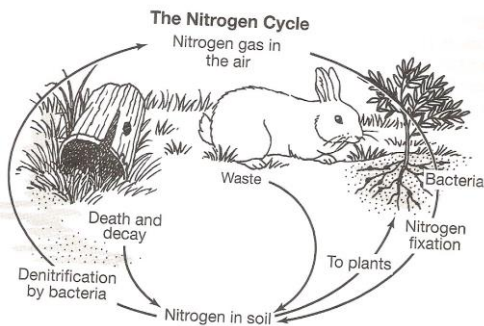
## Water Cycle



## Carbon Cycle



## Nitrogen Cycle



# Cycles in Ecosystems Practice

1. What "powers" the water cycle?
2. What effect would a pollutant like sulfur dioxide (gas) which is released from car exhaust have on the water cycle?
3. What effect would using pesticides or fertilizers on plants have on the water cycle?
4. Carbon dioxide is a "greenhouse gas" which creates a blanket over Earth to hold in heat. Predict what would happen if all carbon dioxide was removed from the atmosphere.
5. Increased carbon dioxide levels in the last 200 years have led to global warming (aka climate change). Provide one possible explanation as to why the CO<sub>2</sub> levels have risen so drastically.
6. Following up to #5, provide one result of the increased carbon dioxide that has occurred on Earth.

Glue Cycles Practice Header Here

7. According to the carbon cycle diagram, what is the only method of removing carbon dioxide from the atmosphere?
8. How can humans help reduce the amount of carbon dioxide in the atmosphere?
9. Bacteria (called *Rhizobium*) live in "nodules" in roots of plants to absorb nitrogen from the air and change it into a form that is accessible to the plants. In return, the bacteria survive on the nutrients produced by the plant. Which type of symbiotic relationship is exhibited in this example?
10. Legumes like beans and nuts are rich in nitrogen. Which organic compound would legumes be classified as?
11. What is the benefit to farmers of using fertilizer, which is usually high in nitrogen, on plants?
12. What are two ways that animals release nitrogen into the cycle?