

Biogeochemical Cycles

1. Define biogeochemical cycle:

The Hydrologic (Water) Cycle

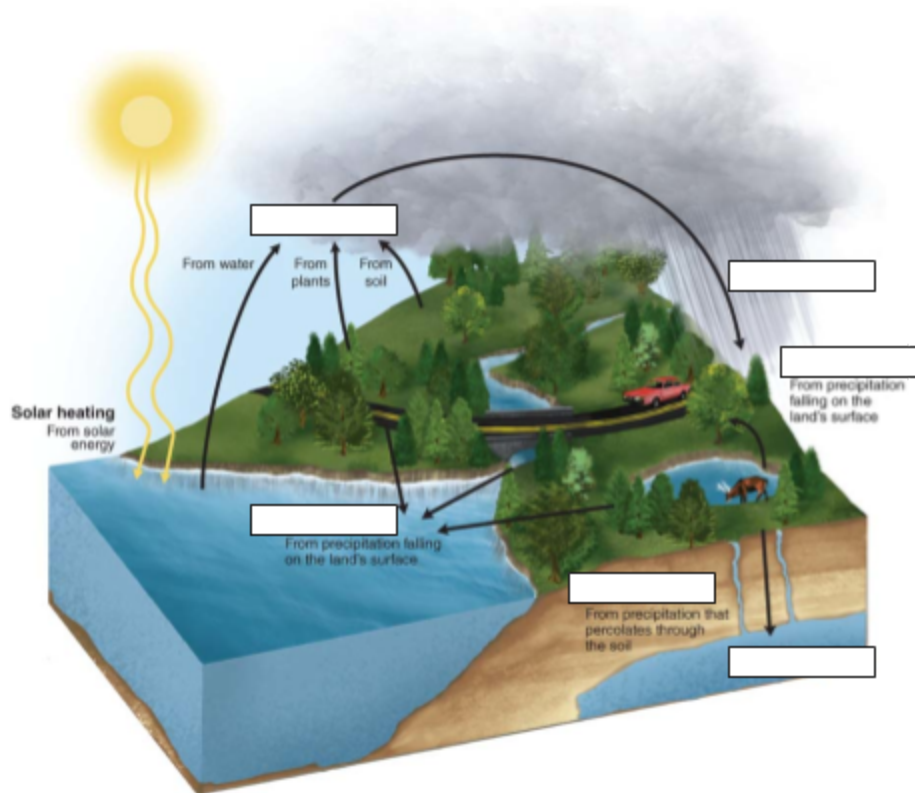


Figure 7.1
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Key Terms

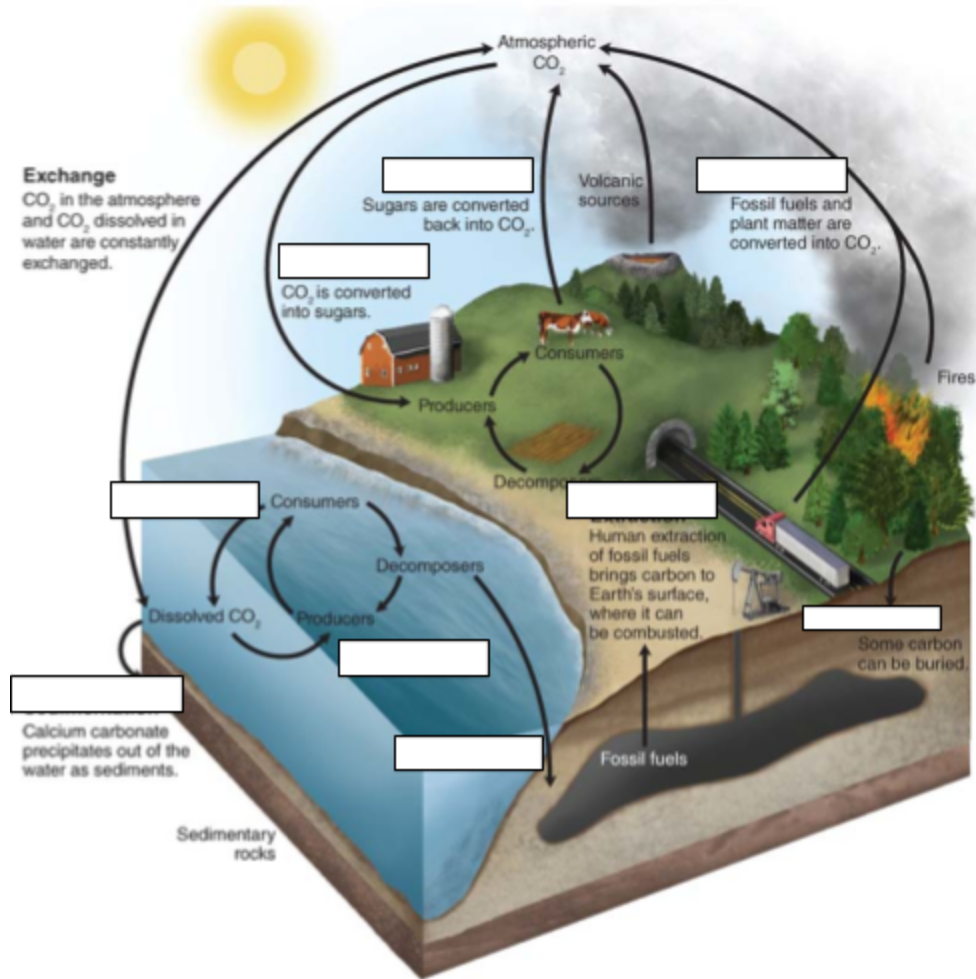
- Precipitation:
- Evaporation:
- Condensation:
- Transpiration:
- Surface runoff:
- Infiltration:
- Aquifer:

3 processes carried out by water:

List **two** Human Impacts on the hydrologic cycle:

The Carbon Cycle

Living organisms need carbon for:

Key Terms:

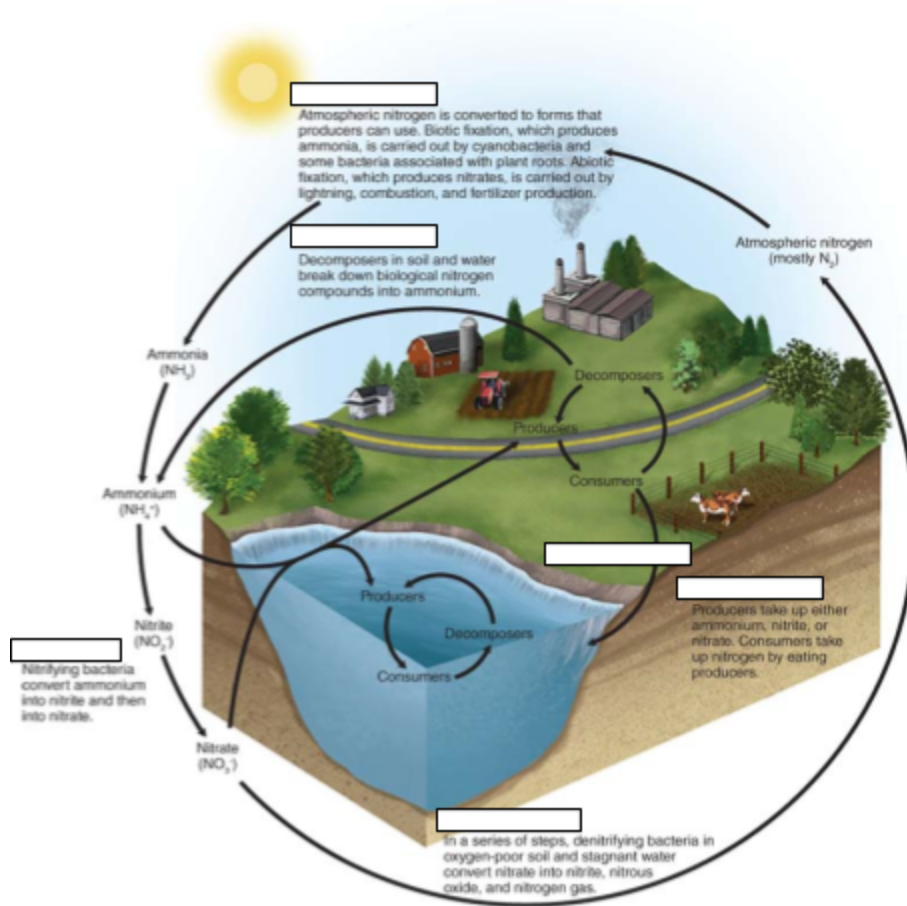
- Photosynthesis
- Cellular Respiration (aerobic respiration)
- Fossil Fuels
- Carbon sink

Explain the various ways(processes) that carbon moves between reservoirs. [eg. photosynthesis, cellular respiration, burning fossil fuels, diffusion into oceans (and ocean acidification), calcium carbonate mineralization]

List **two** Human Impacts on the Carbon Cycle:

The Nitrogen Cycle

Living organisms need Nitrogen for:



Key Terms: Describe the following processes including chemical formulas and who or what makes them happen

- Nitrogen fixation
- Nitrification
- Denitrification
- Ammonification/mineralization
- Leaching

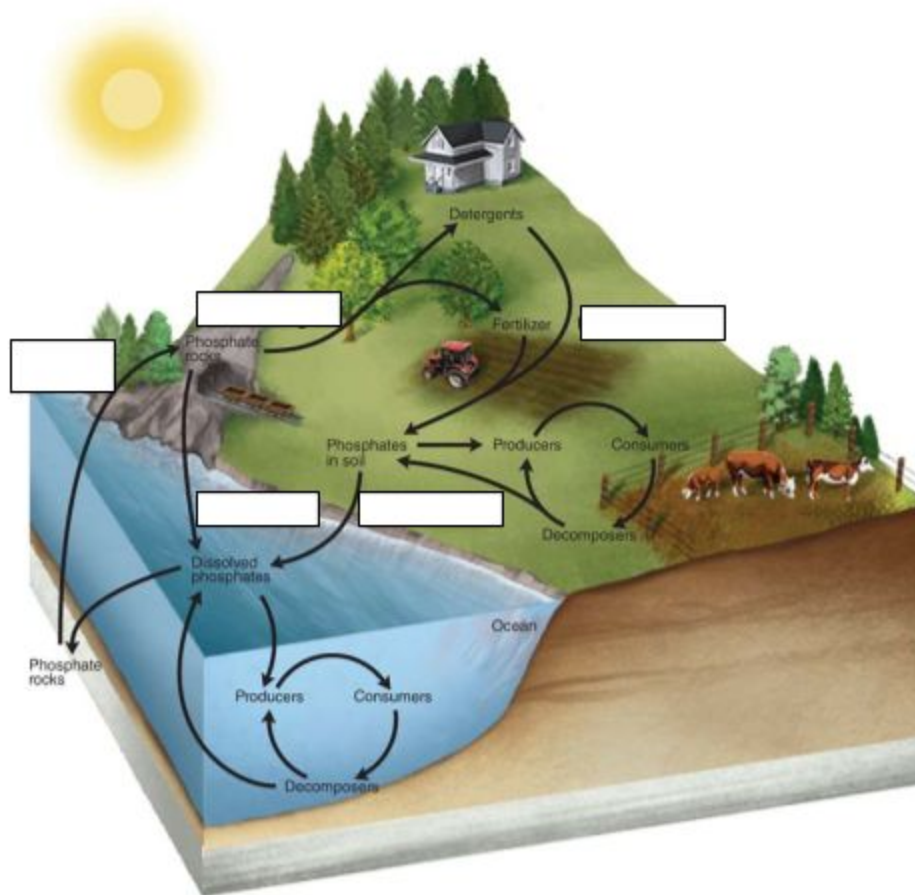
Explain two natural pathways by which nitrogen fixation can occur:

- 1.
- 2.

List **two** human impacts on the Nitrogen Cycle:

The Phosphorous Cycle

Living organisms need Phosphorus for:

Key Questions

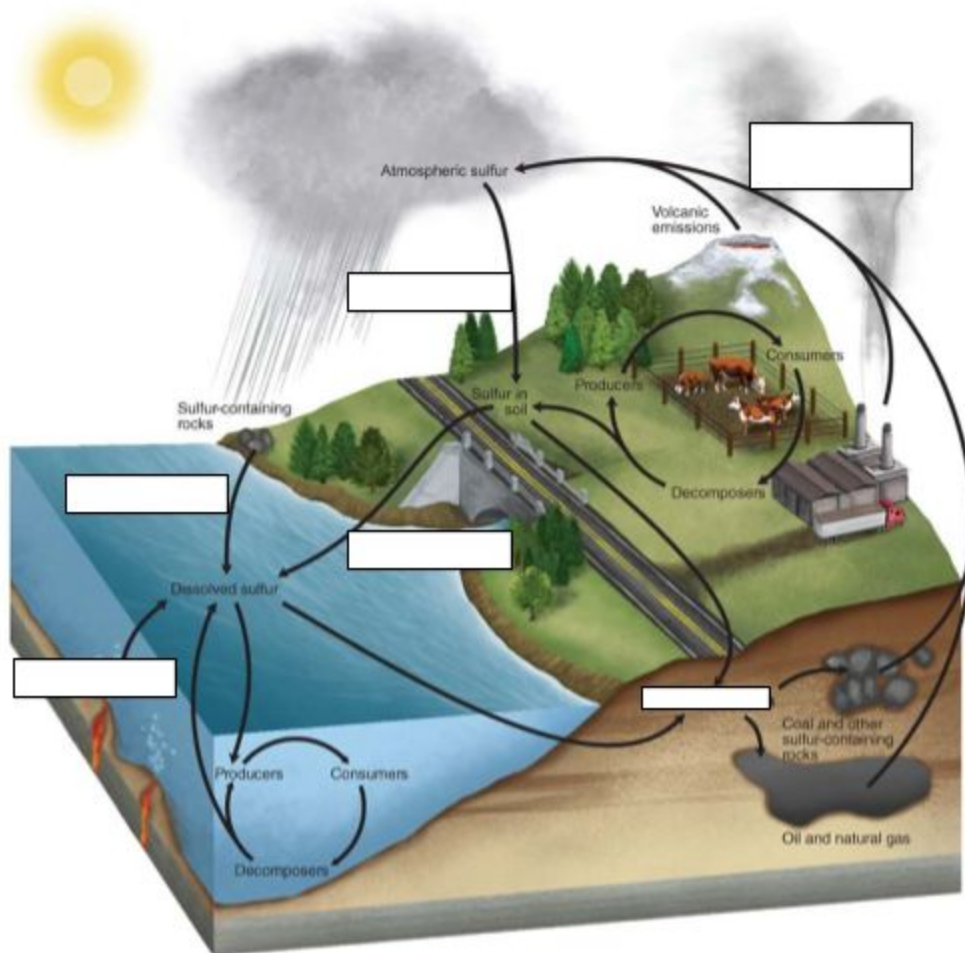
1. Explain the general process of phosphate cycling:
2. How does the Phosphate Cycle differ fundamentally from the Nitrogen and Carbon Cycle?
3. Describe two ways in which the Phosphorus and Nitrogen cycle are linked
4. Describe two ways in which the Phosphorus cycle and Carbon cycle are linked

List **two** human impacts on the Phosphorous cycle:

Name: _____

Date: _____ Block _____

The Sulfur Cycle



Key Terms:

Acid Deposition (Acid Rain):

List ***three*** human impacts on the sulfur cycle:

1.

2.

3.

Name: _____

Date: _____ Block _____

Draw the Cycle and provide a verbal explanation

Tectonic Cycle

Rock Cycle

Ocean Upwelling

Name: _____

Date: _____ Block _____