

**Standard: 12.5.2 By the end of twelfth grade, students will develop an understanding of geochemical cycles.**

Investigate and diagram how elements and compounds on earth move as part of the geochemical cycles.

**TERMS:**

Cycle

Biogeochemical

Reservoir

Combustion

Decomposition

Organic

Nitrogen fixation

Nitrification

Denitrification

Assimilation

**•water cycle** p 420

- In one quadrant of your paper, draw the water cycle. Label it appropriately.
- Define any of the terms you do not know.
- Identify the reservoirs for water.

**•carbon cycle** p 421

- In one quadrant of your paper, draw the carbon cycle. Label it appropriately.
- Define any of the terms you do not know.
- Identify what gases are released during the processes of photosynthesis and respiration.
- Identify what gases are used during the processes of photosynthesis and respiration.
- Identify an organic molecule made by photosynthesis.
- Identify the reservoirs for carbon.

**•nitrogen cycle** p 422

- In one quadrant of your paper, draw the nitrogen cycle. Label it appropriately.
- Define any of the terms you do not know.
- Identify the microorganism that plays a large role in the nitrogen cycle.
- Identify the role lightning plays in the nitrogen cycle.
- Identify organic molecules made by living things using nitrogen.
- Identify the reservoirs for nitrogen.