**Enviroliteracy – Air & Climate: Biogeochemical Cycles (all sections)**

Biogeochemical Cycles

Why are the cycles called “biogeochemical”?

Where do the elements cycle?

Upon what does the speed of the cycles depend?

How do human affect the biogeochemical cycles? Give an example of human influence for the carbon, nitrogen, and phosphorus cycles.

Carbon Cycle

What conversion takes place in photosynthesis?

Describe the process of photosynthesis.

How does carbon taken in by plants and animals reenter the air? (2 ways)

Where is carbon stored? (2 locations)

How is the geological carbon cycle different than biological carbon cycle?

How is carbon released from the geological carbon cycle? (2 ways)

How have humans altered the carbon cycle?

Nitrogen Cycle

What is the importance of nitrogen?

What is nitrogen fixation? What is the purpose? Describe the process.

What is nitrification? What organisms are involved?

What is assimilation?

What is denitrification? Describe the process.

Phosphorus Cycle

What is the importance of phosphorus?

How is the phosphorus cycle different than the other cycles?

What is the largest reservoir of phosphorus?

Describe the movement of phosphorus through the cycle.

How does phosphorus enter the water?

What is eutrophication? Describe how it happens.

How do humans alter the phosphorus cycle?

Sulfur Cycle

What is the importance of sulfur?

Describe the terrestrial sulfur cycle.

How does sulfur enter the water?

Describe the aquatic sulfur cycle.

How do humans alter the sulfur cycle?

Unbalancing the Nitrogen Cycle

How does farming/agriculture affect the nitrogen cycle?

What are the consequences of atmospheric nitrogen pollution?

What are the consequences of aquatic nitrogen pollution?

Water Cycle

Define: precipitation, condensation, evaporation, transpiration, evapotranspiration, runoff, groundwater, and infiltration.

List the types of reservoirs, largest to smallest (based on percentage of water in the hydrological cycle).