

**STANDARD II: Students will understand that the features of Earth's evolving environment affect living systems, and that life on Earth is unique in the solar system.**

**Objective 2: Analyze how ecosystems differ from each other due to abiotic and biotic factors.**

- a. Observe and list abiotic factors (e.g., temperature, water, nutrients, sunlight, pH, topography) in specific ecosystems.
- b. Observe and list biotic factors (e.g., plants, animals, organic matter) that affect a specific ecosystem (e.g., wetlands, deserts, aquatic).
- c. Predict how an ecosystem will change as a result of major changes in an abiotic and/or biotic factor.
- d. Explain that energy enters the vast majority of Earth's ecosystems through photosynthesis, and compare the path of energy through two different ecosystems.
- e. Analyze interactions within an ecosystem (e.g., water temperature and fish species, weathering and water pH).
- f. Plan and conduct an experiment to investigate how abiotic factors influence organisms and how organisms influence the physical environment.