

Science: 1st Nine Week Objectives

7.E.1 Understand how the cycling of matter (water and gases) in and out of the atmosphere relates to Earth's atmosphere, weather and climate and the effects of the atmosphere on humans.

7.E.1.1 Compare the composition, properties and structure of Earth's atmosphere to include mixtures of gases and differences in temperature and pressure within layers.

7.E.1.2 Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on earth

7.E.1.3 Explain the relationship between the movement of air masses, high and low pressure systems, and frontal boundaries to storms (including thunderstorms, hurricanes, and tornadoes) and other weather conditions that may result. 7

7.E.1.4 Predict weather conditions and patterns based on information obtained from:

- Weather data collected from direct observations and measurement (wind speed and direction, air temperature, humidity and air pressure).
- Weather maps, satellites and radar
- Cloud shapes and types and associated elevation

7.E.1.5 Explain the influence of convection, global winds and the jet stream on weather and climatic conditions.

7.E.1.6 Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.