

9-12 Earth Science Learning Targets

(Comprehension) 9-12.E.1.1 Students are able to explain how elements and compounds cycle between living & non-living systems.

I can give details (explain) of how nitrogen, carbon and oxygen (elements) and water, carbon dioxide, carbonates, ammonia, nitrates, and nitrites (compounds) cycle between living and non-living systems.

(Application) 9-12.E.1.2. Students are able to describe how atmospheric chemistry may affect global climate.

I can tell in words or numbers (describe) how various processes of atmospheric chemical changes and cycles such as the greenhouse effect and ozone fluctuations (atmospheric chemistry) may affect the overall patterns of meteorological conditions of the earth (global climate).

(Analysis) 9-12.E.1.3. Students are able to assess how human activity has changed the land, ocean, and atmosphere of Earth.

I can estimate (assess) how pollution, combustion reactions, forest cover changes, urban growth and agriculture (human activity) have changed the land, ocean, and atmosphere of Earth.

(Comprehension) 9-12.E.2.1 Students are able to recognize how Newtonian mechanics can be applied to the study of the motions of the solar system.

I can select from given information based on prior knowledge (recognize) how Newton's law of inertia and universal gravitation (Newtonian mechanics) can be applied to the study of the rotation and revolution of planets and other objects in the solar systems (motions of solar system).