

Dear Parents,

During the 3rd 9 weeks, fifth grade students will be able to examine Earth's processes through sedimentary rock and fossil fuels, natural resources. Students will also understand relationships, systems and cycles within environments; through food webs, and observing the way organisms live and survive in their ecosystem.

Student expectations for Landform Type and Formation: Our next unit of study will focus on The Earth and its processes. This will include Sedimentary Rock & Fossil Fuels. Student are expected to explore the processes that led to the formation of sedimentary rocks and fossil fuels. Students will also be expected to recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, and ice. Based on these processes students then will be expected to identify fossils as evidence of past living organisms and the nature of the environments at the time using models.

1. Sedimentary rock is formed over millions of years from the deposition of sediment in layers. Sediment layers on top apply pressure to those on bottom, compacting them into sedimentary rocks.
2. Fossil fuels are formed over millions of years from the deposition of organic materials in layers. Organic matter in bottom layers begins to decay from the pressure and heat generated from the layers above them.
3. Fossil fuels are formed in sedimentary rock layers when materials are compressed and heated deep under the Earth's surface. Wind, water, and ice can change Earth's surface.
4. Sand dunes form when wind-blown sand builds up. Deltas form when water-born sediments are deposited at the mouths of rivers.
5. Canyons form when moving water cuts through the Earth's surface. Fossils are traces or preserved parts of organisms that lived in the past.
6. Fossils can be used to interpret past events and environments.
7. Models can be used to represent the passage of time and past organisms and environments.

Student expectations for interdependency, and food webs: The concepts of interdependency, food webs, and environments are our next focus in science. Students will be expected to observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving elements. They need to describe how the flow of energy derived from the Sun, used by producers to create their own food, is transferred through a food chain and food web to consumers and decomposers. Students will be expected to predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways and expected to identify the significance of the carbon dioxide-oxygen cycle to the survival of plants and animals.

1. Organisms interact with both living and nonliving things to survive in their ecosystems.
2. Plants interact with living things such as animals and other plants in complex ways that also require nonliving things, such as carbon dioxide, water, and sunlight.
3. Animals depend on other living things, such as plants and other animals, and nonliving things, such as air and water, to survive. All energy transferred through food chains and webs is derived from the Sun.
4. Producers use the Sun's energy to create their own food through photosynthesis.
5. Consumers and decomposers get their energy from producers or other consumers.
6. The different parts of a food web are producers, consumers, and decomposers.
7. Changes to the environment made by organisms can affect other organisms.
8. We can predict the effects of changes to the environment caused by organisms.

Helpful websites and STEMscope login information can be found on the Eagle Mountain Saginaw ISD website on the EMSISD Science Curriculum page. If you have any questions, please contact your fifth grade team.

Sincerely,
The Fifth Grade Team