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| M. Angileri ♣ | **6th grade science** | | **18-19 4-8-19 Flow of Energy in Ecosystems #1** | | | | | |
| NGSS Standard | **MS-LS2-3**  **DCI**  S & E practices  CCC | | Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem  **Cycle of Matter and Energy Transfer in Ecosystems:** Food webs are models that demonstrate how matter is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem.  **Developing and Using Models:** Develop a model to describe phenomena  **Energy and Matter:** The transfer of energy can be tracked as energy can be tracked as energy flows through a natural system. | | | | | |
|  | | **MONDAY** | | **TUESDAY**  **PSAT day** | **WEDNESDAY** | **THURSDAY**  **½ day substitute a.m.** | **FRIDAY** |
| Content Objective: | | SW demonstrate knowledge of the cycling of matter and flow of energy among living and nonliving parts of an ecosystem by recording questions related to the phenomena to lead their inquiry in the unit. | | SW demonstrate knowledge of the cycling of matter and flow of energy among living and nonliving parts of an ecosystem by identifying components of food chains and food webs with 70% accuracy. | SW demonstrate comprehension of the role of photosynthesis in the cycling of matter and flow of energy among living and nonliving parts of an ecosystem by explaining the process with 70% accuracy. | SW demonstrate comprehension of the cycling of matter and flow of energy among living and nonliving parts of an ecosystem by summarizing information in the Linking Literacy handout with 70% accuracy. | SW demonstrate application of how matter is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem by carrying out the food Web activity with 70% accuracy. |
| Language objective | | SW write to ask questions related to the cycling of matter and flow of energy among living and nonliving parts of an ecosystem using complete sentences with 70 % accuracy. | | SW listen/speak/write to defend the cycling of matter and flow of energy among living and nonliving parts of an ecosystem using sentence starters. | SW speak/write to describe the role of photosynthesis in the cycling of matter and flow of energy among living and nonliving parts of an ecosystem using complete sentences with 70% accuracy. | SW read/write to paraphrase the cycling of matter and flow of energy among living and nonliving parts of an ecosystem using the Linking Literacy assignment with 70% accuracy. | SW Speak/Listen/Write to explain how matter is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem using pictures, diagrams and sentences. |
| Classwork: | | School Improvement survey  Investigating Phenomena Video: Student Questions  Describe Photosynthesis | | APK: Matter and Energy in food webs  Hook: Energy Dominoes  L.L.: Is it a ... | Photosynthesis cube  Vocabulary assignment | Scopepedia: Food Chains and Webs  L.L.: Food Web Organization | Explore 1 Activity: Food Webs |

Vocabulary:

Aquatic: Relating to water; living in or near water or taking place in water.

Atom: The smallest particle of an element; made of electrons, protons, and neutrons.

Consumers: An organism that must consume other organisms for nutrients.

Decomposers: Organisms such as bacteria and fungi that break down the remains of dead plants and animals without the need for internal digestion.

Decomposition: The process by which dead organic matter is broken down into simpler chemicals and dispersed.

Ecosystem: A system comprising all biotic and abiotic factors in an area and all the interactions among them.

Energy: The ability if a system to do work; required for changes within a system.

Energy Transfer: Transfer of energy from the Sun through the different trophic Levels of the biosphere.

Food Chain: A food chain simply states which organisms consume each other and shows how energy flows through living things in an ecosystem.

Food Web: Overlapping food chains with different pathways for the flow of food energy in an ecosystem.

Matter Cycle: The movement of elements or molecules through a repeated sequence of events.

Nutrients: Substances that provide nourishment essential for growth and the maintenance of life.

Organism: A self contained living thing.

Photosynthesis: The process that plants use to convert energy from the Sun into chemical energy.

Producers: Organisms that transform energy from the Sun and use carbon dioxide and water to make food.

Respiration: The chemical reaction that takes place in all living cells to release energy from glucose.

Terrestrial: On or of Earth.

Trophic Level: The position an organism occupies on the food web.