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| M. Angileri ♣ 5 -13-18 | **6th grade science** | | **Lesson Plans: Organism Interaction in Ecocystems #1** | | | | |
| NGSS Standard | **MS-LS2-2**  DCI (A)  MS-LS2.A.1.  S & E practices  CCC | | Construct an explanation that predicts pattern of interactions among organisms across multiple ecosystems.  **Interdependent Relationships in Ecosystems**: Organisms, and populations of organisms are dependent on their environmental interactions both with other living things and with nonliving factors.  **Analyzing and Interpreting Data:** Analyze and interpret data to provide evidence for phenomena  **Cause and Effect:** Cause and effect relationships may be used to predict phenomena in natural or designed systems. | | | | |
| Vocabulary: | | **Abiotic Factors:** A nonliving part of an ecosystem.  **Biotic factors**: A living part of an ecosystem  **Dynamic:** Characterized by constant change, activity, or progress.  **Ecosystem:** A system comprising all the biotic and abiotic factors in an area and all the interactions among them.  **Resilience:** The ability of an organism, population, community, or ecosystem to persist in the face of stressful or changing conditions.  **Succession:** The process of the migration of a new species into an ecosystem after a disruptive event.  **Aquatic:** Relating to the water; living in or near water or taking place in water.  **Consumer:** An organism that must consume other organisms for nutrients.  **Cycle of Matter:** The continuous movement of different types of matter, such as water, phosphorus, nitrogen, and carbon, through different parts of the hydrosphere, atmosphere, and biosphere.  **Decomposers**: Organisms such as bacteria and fungi that break down the remains of dead plants and animals, without need for internal digestion.  **Ecological Recycling:** The movement and exchange of living and nonliving matter back into the production of living matter.  **Energy Transfer:** Transfer of energy from the Sun through the different tropic levels of the biosphere.  **Food Webs:** Overlapping food chains with different pathways for the flow of food energy in an ecosystem.  **Nutrients**: A substance that provides materials necessary for the growth and maintenance of life.  **Producer:** An organism that makes complex energy containing biomolecules from simple inorganic molecules using energy captures from light or inorganic chemical compounds.  **Terrestrial:** On or of the Earth.  **Tropic Levels:** Any Class of organisms occupying the same position in a food chain, such as primary consumer or secondary consumers. | | | | | |
|  | | **MONDAY** | | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| Content Objective: | | SW demonstrate knowledge of interactions among organisms by identifying the comparisons in the graphs. | | SW demonstrate comprehension of how ecosystems recover from disasters by paraphrasing the sequence of events that lead to recovery. | SW demonstrate comprehension of how ecosystems recover from disasters by paraphrasing the sequence of events that lead to recovery. | SW demonstrate comprehension of how ecosystems recover from disasters by paraphrasing the sequence of events that lead to recovery. | SW demonstrate application of interactions among organisms by constructing food chains and food webs. |
| Language objective | | SW write to draw conclusions about the interactions among organisms using notetaking strategies. | | SW orally give feedback about how ecosystems recover from disasters using complete sentences. | SW orally give feedback about how ecosystems recover from disasters using complete sentences. | SW orally give feedback about how ecosystems recover from disasters using complete sentences. | SW write to describe interactions among organisms using sentence starters. |
| **Essential Question:** | | **What is causing the decrease in Polar Bear populations?** | | **What is causing the decrease in Polar Bear populations?** | **What is causing the decrease in Polar Bear populations?** | **What is causing the decrease in Polar Bear populations?** | **What is causing the decrease in Polar Bear populations?** |
|  | | Grade reflection  APK: Organisms Interaction  Hook: Biotic and abiotic | | Testing  Nature recovering from Disaster presentations | Testing  Nature recovering from Disaster presentations | Testing  Nature recovering from Disaster presentations | Do 1 Ecosystem Interactions  Planning and reflection |

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| Enrichment | Students research a disruptive event that disturbed an existing ecosystem and create a presentation to give during science class.  Research Day (final Day) | Testing | Testing | PBIS event Play | Recycling  Student Sharing  Flush? |