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| M. Angileri ♣ 4 -23-18 | **6th grade science** | | **Lesson Plans: Dynamic Nature of Ecosystems #1** | | | | |
| NGSS Standard | **MS-LS2-4**  DCI (A)  MS-LS2.1C.  S & E practices  CCC | | Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.  **Ecosystem Dynamics, Functioning and Resilience:** Ecosystems are dynamic in nature; their characteristics can varyover time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations.  **Engaging in Argument from evidence:** Construct, use, and/or present an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or model for a phenomenon or a solution to a problem.  **Stability and Change:** Effect of changes: Small changes in one part of a system might cause large changes in another part. | | | | |
| Vocabulary: | | **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 evaluation of cell theory, anatomy of a cell and cycling of matter through photosynthesis by making test corrections. | | SW demonstrate knowledge of how changes to physical or biological components of an ecosystem affect populations by stating examples. | Testing | SW demonstrate comprehension of physical or biological components of an ecosystem by summarizing information in the guided reading. | Testing |
| Language objective | | SW write to synthesize information on cell theory, anatomy of a cell and cycling of matter through photosynthesis by testing. | | SW write to explain evidence of physical or biological components of an ecosystem affect populations using sentence frames. |  | SW write to summarize how changes to physical or biological components of an ecosystem impact organisms using the Sentence frames. |  |
| **Essential Question:** | | **Why are invasive species a threat to an environment?** | | **Why are invasive species a threat to an environment?** | **Why are invasive species a threat to an environment?** | **Why are invasive species a threat to an environment?** | **Why are invasive species a threat to an environment?** |
|  | | Complete Type 3  Test corrections  What does Invasive mean?  HOOK: What do fish breath? | | APK: Predict what would happen….  Do 2 activity: Succession | NWEA testing questions 1-25  Vocabulary: Dynamic Nature of Ecosystems | Read in Discuss: Environmental issues. P. 84-89 | NWEA 26- END  Grade reflection |

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| Enrichment | Continue Research for Debate  Watch Hoot | Continue Research for Debate  Watch Hoot | Comparing Hoot the book and Movie | Continue Research for Debate  Watch Hoot | Recycling  Debate |

What does invasive mean? What is its root meaning? What other word to you think of when you hear invasive?