Name: _____ Class Period: _____

S7L4 b Abiotic/Food Web/Cycles

Start Date: January 31, 2019 **End Date: February 14, 2019**

Direct Instruction	DOK 2	DOK 3	DOK 4
Pre-Assessment (Place score at the bottom of the sheet) **Self-Assess from the Pre-Assessment** *Complete **Must Do's*** *Take Nearpod notes* Food Web/Pyramid/Energy Cycles Nearpod https://share.nearpod.com/1QrFcpIcnL **MUST DO: : Abiotic/Food Web/Cycles** Vocabulary: flashcards, foldable, or KIM Chart (Share with Teacher) biotic, abiotic, producer, consumer, herbivore, carnivore, omnivore, decomposer, carbon cycle, nitrogen cycle, energy pyramid, food chain, food web, competition, predator, prey, primary consumer, secondary consumer, tertiary consumer, symbiosis, mutualism, commensalism, parasitism, community, ecosystem, biosphere, biome, population, limiting factor, carrying capacity, extinction **MUST DO:** Biotic vs Abiotic You won't beat the score!! http://www.kubbu.com/student/?i=1&a=45900_abiotic_vs_biotic Score_____ **MUST DO:** **Create a foldable or visual on the Food Web Pyramid -must include: 5 levels: Decomposers, Producers, Primary, Secondary, Tertiary Include notes and illustration**	**Choose 1, 2 or 3** 1. Create an ecosystem that includes abiotic and biotic factors: Choose 1 from the link below https://iblog.dearbornschools.org/savagea/wp-content/uploads/sites/1268/2016/09/Abiotic-and-Biotic-Factors-Student-Project.pdf **2**.Create your own assignment. ****MUST be teacher approved.** **Must include information about: Abiotic/Biotic factors and Food Chain** ****Include at least one food chain** **3.** Draw a food chain and a food web to describe the source of something they have eaten recently. Each food chain or web should start with the sun and then move to producers and associated consumers. Make sure to draw arrows to indicate the flow of energy from one stage to the next. Follow the rubric and complete the analysis questions (see teacher for questions)	**Choose #1, #2, or #3** **1.**.Create your own assignment. ****MUST be teacher approved.** **Must include information about: Abiotic/Biotic factors and Food Chain** **2.** Create a flowchart for the Water Cycle, Carbon Cycle, and Nitrogen Cycle to show the critical stages of each cycle. Do not just copy a picture that already exists on the web. ***Relate how engineers use their knowledge of energy flow through systems in the design of new technologies. **USE THE BELOW LINK FOR A REFERENCE** "Go with the Energy Flow" https://www.teachengineering.org/lessons/view/cub_bio_lesson03 **3**. Research the ways in which people in your community can impact the water cycle. Write a newspaper article and be prepared to present your findings to help the people in your community understand their impact on the water cycle. **Must have creditable data.**	**Create Your Own3** **1.**Create own Environment Project - Include: Abiotic, Biotic Factors, Food Webs & Pyramid, and Energy Cycles Follow the 4 C Rubric guideline
Vocabulary Quiz Attempt: _____	DOK2 Check-Up Attempt: _____	DOK3 Check-Up Score: _____	Formative Assessment: Score: _____

Pre-Assessment: _____ **Post-Assessment: _____**

Unit GSE: S7L4. Obtain, evaluate, and communicate information to examine the interdependence of organisms with one another and their

environments.
b. Develop a model to describe the cycling of matter and the flow of energy among biotic and abiotic components of an ecosystem. (Clarification statement: Emphasis is on tracing movement of matter and flow of energy, not the biochemical mechanisms of photosynthesis and cellular respiration.)

Learning Targets:

1. **I can identify biotic and abiotic components in an ecosystem. (Knowledge)**
2. **I can explain how matter moves in an ecosystem. (Knowledge)**
3. **I can explain how energy moves in an ecosystem. (Knowledge)**
4. **I can compare the movement of matter and energy in an ecosystem. (Reasoning)**
5. **I can describe the movement of matter and energy in an ecosystem among biotic and abiotic components. (Reasoning)**
6. **I can develop a model to describe the movement of matter and energy among biotic and abiotic components of an ecosystem. (Product)**

Lesson Timeline:

Week of	Monday	Tuesday	Wednesday	Thursday	Friday	To Do:
1/31			30 - S7L3 a,b,c Unit Assessment S7L4b Pre-Assessment	31 - Direct Instruction DOK 4 Use DOK 2 & 3 for Resources S7L4b Pre-Assessment	2/1- Learner Profile Goals Direct Instruction DOK 4 Use DOK 2 & 3 for Resources	
2/4	4 - D/I- DOK 4 Use DOK 2 & 3 for Resources	5 - D/I - DOK2 - DOK 2 Check up	6 Direct Instruction DOK 4 Use DOK 2 & 3 for Resources	7 D/I- Direct Instruction DOK 4 Use DOK 2 & 3 for Resources	8 D/I-Direct Instruction DOK 4 Use DOK 2 & 3 for Resources	
2/11	11 D/I- DOK 4 Use DOK 2 & 3 for Resources DOK 3 Check Up	12 D/I- DOK 4 Use DOK 2 & 3 for Resource	13 D/I- DOK 4 Use DOK 2 & 3 for Resource	14 Post Assessment		

1. **Lesson support**
    a. **Scholastic Interactive Site: https://www.scholastic.com/teachers/activities/teaching-content/ecosystems-11-studyjams-interactive-science-activities/**
    b. **Humpback Whale saved by boaters: https://www.youtube.com/watch?v=tcXU7G6zhjU**
    c. **Ecology PowerPoint: www.ptbeach.com/cms/lib02/.../113/ap%20biology%20ppts/Ecology1%20ppt.pptx**

Resources:

https://www.youtube.com/watch?v=hIy0ZlyPPDg&list=PLISBHwlJXpn2bmLjfiShKcIHpBPcov24O&index=5 – Intro to biomes

https://www.youtube.com/watch?v=E1pp_7-yTN4&list=PLpVSLnEyW17bKa2esIHEpr1YNkoQIdBIc&index=3 – Abiotic and Biotic

https://www.youtube.com/watch?v=cIfpKL0brwQ&index=5&list=PLpVSLnEyW17bKa2esIHEpr1YNkoQIdBIc - Population Community Ecosystem

https://www.youtube.com/watch?v=zTGcS7vJqbs&index=2&list=PLpVSLnEyW17bKa2esIHEpr1YNkoQIdBIc – Symbiosis

https://www.youtube.com/watch?v=Q5Vl4V24eNI&list=PLpVSLnEyW17bKa2esIHEpr1YNkoQIdBIc&index=4 – Habitats

Amoeba Sisters videos

https://www.youtube.com/watch?v=EtWknf1gzKo&list=PLwL0Myd7Dk1F0iQPGrjehze3eDpco1eVz&t=30s&index=3 – Levels of Organization

https://www.youtube.com/watch?v=-oVavgmveyY&list=PLwL0Myd7Dk1F0iQPGrjehze3eDpco1eVz&index=43 – Intro to Food Webs and Energy pyramids

https://www.youtube.com/watch?v=rNjPI84sApQ&index=44&list=PLwL0Myd7Dk1F0iQPGrjehze3eDpco1eVz – Ecological relationships

https://www.youtube.com/watch?v=NHqEthRCqQ4&list=PLwL0Myd7Dk1F0iQPGrjehze3eDpco1eVz&index=45 – Carbon and Nitrogen Cycles

Brain pop videos

https://www.brainpop.com/science/ecologyandbehavior/symbiosis/ - Symbiosis

https://www.brainpop.com/science/ecologyandbehavior/landbiomes/ - land biomes

https://www.brainpop.com/science/ecologyandbehavior/energypyramid/ - Energy Pyramid

https://www.brainpop.com/science/ecologyandbehavior/foodchains/ - food chains