

HS-LS2-5: Cycling of Carbon in Ecosystems

Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. (Systems and System Models)

HS-LS2-6: Ecosystem Dynamics, Functioning, and Resilience

Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

HS-LS2-2: Biodiversity and Populations in Ecosystems

Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. (Scale, Proportion, and Quantity)

HS-LS2-7: Human Impact Reduction Solution

Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. (Stability and Change)

HS-LS4-6: Human Impact on Biodiversity Solution

Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity. (Cause and Effect)

HS-LS2-5 - [Modeling Carbon Cycle of Earth's Surface](#)

HS-LS2-6 - [The Big Biodiversity Experiment](#)

HS-LS2-2 - [Measuring the Biodiversity of the BMGR](#)

HS-LS2-7 - [Five Ways to Slow the Hippo](#)

HS-LS4-6 - [Channel Island Biogeography](#)

Modeling Carbon Cycle of Earth's Surface

[Evidence Statement](#)

Reflections:			
	No	Partial	Yes
1. The assessment contains a phenomenon (science) or a problem (engineering)			
2. The prompts match the Science and Engineering Practice (SEP) and engage students in sense making.			
3. The stimuli have multiple and sufficient information needed to utilize the SEP . (e.g. multiple data sets to analyze)			
4. The prompts elicit observable understanding of the Disciplinary Core Idea (DCI) .			
5. The prompts explicitly mention the Crosscutting Concept (CCC) .			
6. The prompts include language (i.e. bullets) from grade appropriate progressions. (SEP) (DCI) (CCC)			
7. The graphic organizers provide space for the observable features (e.g. 1, 2, 3...) in the evidence statement. (e.g. claim, evidence and reasoning)			
8. The entire assessment contains information that is scientifically accurate and properly attributed. (e.g. don't make up data and include the source)			
9. The prompts point in the direction of explaining a phenomenon (science) or designing a solution (engineering).			
10. The phenomenon or problem is authentic, interesting, and requires students to figure something out.			
11. The phenomenon or problem is novel to show the transfer of knowledge. (i.e. not in the unit)			

The Big Biodiversity Experiment

[Evidence Statement](#)

Reflections:			
	No	Partial	Yes
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2. The prompts match the Science and Engineering Practice (SEP) and engage students in sense making.			

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11. The phenomenon or problem is novel to show the transfer of knowledge. (i.e. not in the unit)			

Measuring the Biodiversity of the BMGR Evidence Statement

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11. The phenomenon or problem is novel to show the transfer of knowledge. (i.e. not in the unit)			

Five Ways to Slow the Hippo

[Evidence Statement](#)

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Channel Island Biogeography

Evidence Statement

Reflections:			
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