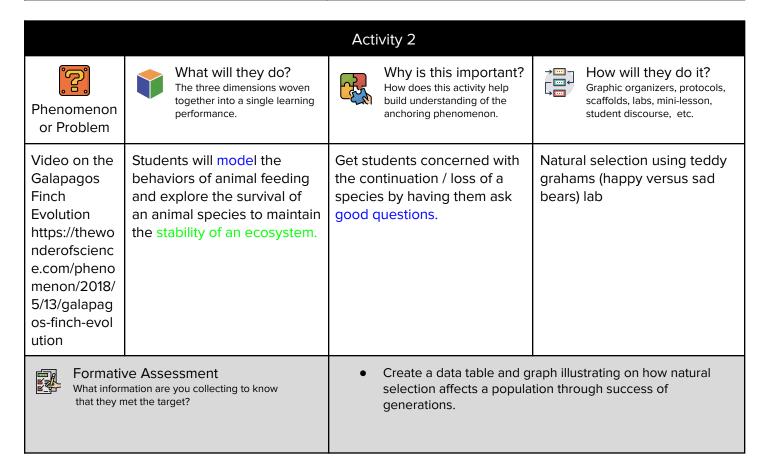
Three Dimensional Learning Plan: **HS-LS4-5**

Grade Level: High School

Title	HS-LS4-5 - Loss of Species	Phenomenon/Problem	Two Species or One
Designed by	Jessica Poseluzny and Lisa Reece	Course(s)	Living Environment
Brief Learning Description	Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood and the rate of change of the environment affect distribution or disappearance of traits in species.		
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Desired Results				
Performance Expectation(s)				
HS-LS4-5: Environmental Change - Speciation and Extinction Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. (Cause and Effect)				
Summative Assessment	Summative Assessment			
Science and Engineering Practices	Science and Engineering Practices Disciplinary Core Ideas Crosscutting Concepts			
 □ Analyzing & Interpreting Data □ Asking Questions □ Constructing Explanations □ Defining Problems □ Designing Solutions □ Developing & Using Models ✓ Engaging in Argument from Evidence □ Mathematics & Computational Thinking □ Obtain, Evaluate, Communicate Information □ Planning & Carrying Out Investigations 	✓ LS4.C: Adaptation	✓ Cause & Effect □ Energy & Matter □ Patterns □ Scale, Proportion & Quantity □ Stability & Change □ Structure & Function □ Systems & System Models		

Activity 1				
Phenomenon or Problem	What will they do? The three dimensions woven together into a single learning performance.	Why is this important? How does this activity help build understanding of the anchoring phenomenon.	How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.	
Video depicting overfishing, fertilizer usage or deforestation and how it is affecting animal species.	Students will brainstorm by asking questions on the effects of not cutting down trees or other negative ecological issues and focus on environmentally friendly practices,	Get students concerned about the loss of species due to human activity.	Have them in groups with a graphic organizer listing the alternative practices to their ecological issue such as deforestation.	
Formative Assessment What information are you collecting to know that they met the target?		Create a poster showing alternative practices to the ecological / deforestation problem		



Phenomenon or Problem	What will they do? The three dimensions woven together into a single learning performance.	Why is this important? How does this activity help build understanding of the anchoring phenomenon.	How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.	
Pictures of animals and their DNA	Students will investigate patterns in structural and molecular differences inorder to determine relationships in organisms.	Get students concerned with relationships of organisms through structural and molecular evidences	Relationships and Biodiversity Lab stations	
Formative Assessment What information are you collecting to know that they met the target?		Complete the data sheet and associated questions.		

Activity 4				
Phenomenon or Problem	What will they do? The three dimensions woven together into a single learning performance.	Why is this important? How does this activity help build understanding of the anchoring phenomenon.	How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.	
Two species or one?				
What inform	Ve Assessment nation are you collecting to know net the target?	•		

Activity 5					
Phenomenon or Problem	What will they do? The three dimensions woven together into a single learning performance.	P. S.	Why is this important? How does this activity help build understanding of the anchoring phenomenon.		How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.
What inform	ve Assessment mation are you collecting to know net the target?	•			
Summative Assessment What information are you collecting to know that they met the target?		•			

Materials / Resources			
Differentiation / Modifications			