

Biodiversity Loss Lesson Plan

Author:	<i>Xylin Crow, Aubrey Tyler, Ball State University</i>	
Lesson Title:	<i>The Effects of Biodiversity Loss</i>	
Lesson Topic:	<i>Biodiversity Loss in Puerto Rico and Indiana and the effects</i>	
Context		
Grade Level, Course	<i>Appropriate for grades eight through ten. Suitable for: Biology, Environmental Sciences, Ocean Science</i>	
Anticipated timeline	<i>3 Days with each day to be a different topic.</i>	
Learning Goals and Assessments		
Anchoring Phenomenon or Problem	<i>How the loss of a certain ecosystem effects the region as a whole.</i>	
Performance Expectation	Successful learners will...	How will you assess this objective?
	<ul style="list-style-type: none"> • <i>Students will be able to explain the effect of biodiversity loss in Puerto Rico</i> 	<ul style="list-style-type: none"> • <i>Project and presentation along with Know Grow Go Assignment</i>
	<ul style="list-style-type: none"> • <i>Students will be able to construct the effects of this concept in both ideal and actual conditions</i> 	<ul style="list-style-type: none"> • <i>Shoebox diorama</i> • <i>Presentation</i>
Standards alignment	Practices <ul style="list-style-type: none"> • <i>Asking questions and defining problems</i> • <i>Developing and using models</i> • <i>Planning and carrying out investigations</i> • <i>Constructing explanations and designing solutions</i> • <i>Engaging in argument from evidence</i> 	Disciplinary Core Ideas <i>LS2.A: Interdependent Relationships in Ecosystems</i> <i>LS2.C: Ecosystem Dynamics, Functioning, and Resilience</i> <i>LS4.D: Biodiversity and Humans</i>
		Crosscutting Concepts <ul style="list-style-type: none"> • <i>Patterns</i> • <i>Cause and Effect</i> • <i>Scale and Proportion</i> • <i>Systems and System Models</i> • <i>Energy and Matter:</i> • <i>Structure and function</i> • <i>Stability and change</i>

	<ul style="list-style-type: none"> • <i>Obtaining, evaluating, and communicating information</i> 	
--	-----------------------------------------------------------------------------------------------------------------	--

Daily Activity Details		
<i>What will you DO and USE during this lesson?</i>	<i>I will show the students two types on environments in Puerto Rico, one being the sea line with lush mangrove forests, while the other is what it looks like without them. I will explain and demonstrate how the loss of a species can affect the environment as a whole.</i>	<i>Shoeboxes Paint/Paintbrushes Cups with water (for paint) Markers Extra paper (for making environment) Will be provided in class</i>
	<u>Biodiversity Loss Homework Assessment (1).docx</u> <u>Rubric Biodiversity Loss (1).docx</u>	<i>Students will turn in a shoe box diorama with two environments, one being an environment with the loss of an important biomass in Indiana, and the other side being what the ecosystem looks like with that biomaterial in effect. Students will Create a slideshow or presentation on the species you chose, how the loss of said species effects the environment of Indiana, and the steps that are being and/or should be made to reintroduce this species and stop the loss of it.</i>

APPENDIX A

Handouts

[Biodiversity Loss Homework Assessment \(1\).docx](#)

For better viewing and function please open the link and download a copy

APPENDIX B

Assessment Instruments

[Rubric Biodiversity Loss \(1\).docx](#)

For better viewing and function please open the link and download a copy