

LS-HHMI Outreach Curriculum Project Information	
Title	<List the name of each file you have created for your project.>
Resource Type	Lesson Plan X Classroom Activity X Homework Assignment X
Description	<p style="text-align: center;">Biodiversity-Say What?</p> <p>In AP Biology, the topic of Biodiversity in terms of Conservation Biology and Restoration Ecology are often given as independent work. The purpose of this lesson is to serve as a template for a quick and easy lesson about this important topic.</p> <p>The lesson is comprised of an Introductory Activity and a Biodiversity Jeopardy game. The introductory activity involves the teacher showing the PowerPoint provided which is made of image slides representing these biodiversity topics: 3 levels of biodiversity, importance, threats, and solutions. The teacher will show the PowerPoint and then have students (in groups of four) brainstorm answers to the essential questions given on the worksheet provided. Student groups will be allowed to review the PowerPoint as needed during the brainstorming time.</p> <p>At the end of the introductory activity, students will share their answers and the teacher will take the students through the PowerPoint one last time, discussing the meaning of each slide (Using teacher notes provided).</p> <p>After the introductory activity students will read or re-read the Conservation Biology and Restoration Ecology Chapter in Campbell and Reece (alternatively in regular or honors biology, the teacher may review and present these concepts).</p> <p>Finally student teams will compete in the Biodiversity Jeopardy game provided.</p>
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Objective	In AP Biology, the topic of Biodiversity in terms of Conservation Biology and Restoration Ecology are often given as independent work. The purpose of this lesson is to serve as a template for a quick and easy lesson about this important topic. It will provide an introduction and/or review of Biodiversity, including levels of biodiversity, importance, threats and possible solutions.		
Key Concepts	Biodiversity, Genetic Diversity, Species Diversity, Ecosystem Diversity, The Importance of Biodiversity, The 4 Major Threats to Biodiversity, and Possible Solutions.		
Student Prep	This is an appropriate lesson/activity for AP Biology, Honors Biology and regular Biology classes. Students may have extensive, limited or no prior knowledge.		
Materials	<ul style="list-style-type: none"> • Biodiversity: Say What? Image PowerPoint • Student Worksheet • Teacher Notes • Biodiversity Jeopardy PowerPoint 		
Grade and Level(s)	9-12		
Teacher Prep Time	Review materials for lesson, copy worksheets (15min)	Class Time	1-2 45 min periods
National Standards	<p>Biological evolution (12CLS3) Diversity of organisms (12CLS3.2) Natural selection (12CLS3.3) Classification (12CLS3.5)</p> <p>Interdependence of organisms (12CLS4) Interdependence of organisms/ecosystems (12CLS4.3) Human effects on ecosystems (12CLS4.5)</p>		
State Standards	Massachusetts: 5. Evolution and Biodiversity Evolution is the result of genetic changes that occur in constantly changing environments. Over many generations, changes in the genetic make-up of populations may affect biodiversity through speciation and extinction.		
Sources	<p>Campbell and Reece (Eighth Edition) Chapter 56 Pearson Education Inc, 2008 Key Facts on Biodiversity, The United Nations Environmental Program: http://www.nyo.unep.org/action/10f.htm Biodiversity: Facts and figures Mike Shanahan and Eshan Masood 1 December 2004 EN , http://www.scidev.net/en/agriculture-and-environment/features/biodiversity-facts-and-figures.html Why is Biodiversity Important? Who Cares? By Anup Shah Global Issues http://.globalissues.org Biodiversity Theory: The Three Levels of Biodiversity, http://www.scidev.net/en/agriculture-and-environment/features/biodiversity-facts-and-figures.html</p> <p>PowerPoint Image Sources: See Media Copyright sheet.</p>		
References			

Assessment	Student Worksheet Ecology Unit Test
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