



Biodiversity FRQ Teacher's Guide

The powerpoint presentation sets the stage for a writing exercise for AP Environmental Science students that emphasizes local biodiversity.

This classroom activity and homework assignment seeks to

1) connect students to the concept of biodiversity and

2) provide students with an opportunity to write from their own perspective about the effect of biodiversity loss.

Presentation

Students can have the slides given to them at the start of the presentation as a handout.

Slides 1-7: Definition of Biodiversity and ecological roles of different organisms. Also, starts to make the case about the decline of biodiversity.

Slides 8-10: Uses the HIPPO acronym to describe and help students remember the five main causes of biodiversity loss. The first hippo introduces the acronym. The second picture of the hippo can be used as a check for understanding, remembering what the letters stand for.

Slides 11-17: Using graphs (line and pie graphs) and quotes to highlight biodiversity loss from world, to North America, to Northeast United States to Chelsea, MA, where author's school is located.

Suggest that each type of graph is looked at closely by teachers and students to understand its implication. Students could write their interpretation of graphs on the lines next to the slide on their handout.

Slide 17: Teachers should adapt this slide with their own town or community name. The purpose of this slide is to start student observations of their own neighborhood or backyard.

Slides 18-19: Writing Assignment. See rubric in accompanying documents.

Using the analogy of various popular movies that share the theme of What IF?, students are assigned a writing assignment that is fairly open ended, but asks them to relate personally to a "favorite" species or organism from their neighborhood. The scenario that they create describes the qualities of their organism or species that they believe makes it special, and then the consequences if that organism or

species did not exist any longer. They are also asked to envision how the value of the organism or species could be more clearly demonstrated to themselves or others.

Writing Rubric

Given to students at the end of the presentation, to guide their writing. It emphasizes the three paragraph format and the criteria mentioned in the powerpoint presentation.

Rubric maker: <http://rubistar.4teachers.org/index.php?screen=NewRubric>

Recommend teacher use of an online calculator that converts the raw rubric score to a percent grade. URL address: <http://roobrix.com/>

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