

Community in the Classroom Presentation Plan

Lesson Name (Bio) Diversity in Insects: Examining the World
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Grade Level 2

Standards Connection(s) _____

- 2.a Students know that organisms reproduce offspring of their own kind and that the offspring resemble their parents and one another.
- 2.c Students know many characteristics of an organism are inherited from the parents. Some characteristics are caused or influenced by the environment.
- 2.d Students know there is variation of one kind within a population.

Abstract:

Your opportunity to tell teachers and kids what's going to be fun and interesting about your visit!

Students will first be introduced to real scientific research of insect diversity, and exposed to real tools used in these investigations. Students will be given the opportunity to inquire about how science works and what some of the major goals are. During this time, students will be introduced to the vocabulary and concepts of this lesson (See below).

The primary focus of this lesson places students as primary investigators, examining insect collections to observe and document similarities and differences between related organisms. In this activity students will use “tools” of natural scientists to document the diversity of related organism populations. They will be given “Field Note Books”, magnifying glasses (scientific tools), and a unique insect collection from various geographic places (containing a map and a photo of the environment the organisms were collected in). Students will observe and draw conclusions about inheritance of appearance and characters, and how environment can cause natural variation.

Goals:

- 1) Students will be introduced to the concept of “**scientists**” and **research** via real work done examining Hawaiian diversity in insects.
- 2) Students will be able to use a research tools (**magnifying-glass & Field notebooks**) to **examine and observe** differences in insect (living things)
- 3) Students will understand the elements that contribute to diversity in the world
 - a. Inheritance
 - b. Environment

Focusing Questions:

- 1) What does the term _____ mean?
 - a. Appearance
 - b. Characteristics
 - c. Environment
 - d. Observe
 - e. *Diversity
- 2) What are the similarities and differences in the groups (populations) of insects
 - a. Observation based question
- 3) Why are insects different in each group?
 - a. Especially since they are the same species
 - b. Answers should include environment and hint at genetic variation.



Vocabulary/Definitions:

3 – 6 important (new) words

Expected_____

Appearance: *The way something looks.*

Characteristics: *A feature or a trait that a plant or animal has.*

Environment: *Everything around an animal (or insect).*

Observe: *The use of senses to find out about something.*

Above and Beyond_____

* Diversity

Inheritance:

DNA/Genetic:

Materials:

What you'll bring with you

What students should have ready (pencils, paper, scissors)

Intro:

Research Tools:

Hand net

Aspirator

Collection Box

Hat

Field Notebook

Writing Board (i.e. chalk, marker...)

Lesson:

“Field Note Book”

Pencils, crayons, markers, and/or colored pencils

Magnifying Glasses

Insect collections (5-10 specimens, map of geographic area, picture of environment)

Classroom Set-up:

Student grouping, Power/Water, A/V, Light/Dark, set-up/clean-up time needed

Dependent on Classroom Structure and Class Size

- a) Classroom has desk area and sitting area. Students will be gathered in sitting area for introduction to day's activities and myself. A semi-circle is important; students should be able to face each other for discussion-type dialogue.
- b) Insect collections will be divided up into geographic areas (arbitrarily or by actual collection) and placed as units and given to a group of 3-4 students (depending on class size).
 - a. Group sizes can be varied
 - b. Depending on classroom layout, boxes can be placed on tables or a desk. Special care should be made not to place it precariously so specimens are not destroyed.
- c) At the end, students will need to be brought back into focus either at their desks or stations or brought back to the sitting area.

