

Subject: Science

Grade: Twelfth- Biology

Standard: #2 The Nature of Science and Technology

Key Concept: Investigations are conducted for different reasons, including to explore new phenomena, to check on previous results, to test how well a theory predicts, and to compare different theories

Generalization: Individual organisms can be studied by being given the opportunity to choose between discrete conditions of a manipulated variable.

Background:

Students are studying the behavior of animals and plants. They are also working with experimental design. These students are in an advanced biology class, having already completed one year of biology earlier.

Each group will be experimenting with WOWBugs using a different variable: light, sound, odor, taste, temperature. This set of activities comes from WOWBUGS: New Life for Life Science, ISBN: 1-888499-06-0, pp. 146-196. Complete directions, materials, follow-up activities and discussion questions are provided in the book. Students should repeat each investigation several times.

This lesson is tiered in *process* according to *interest*.

Students are placed in groups according to their interest in studying a particular variable pertaining to the WOWBugs

Tier I: *Light*

Tier II: *Sound*

Tier III: *Odor*

Tier IV: *Taste*

Tier V: *Temperature*

Assessment:

Teacher observation and student interviews during the investigation will serve as formative assessments. Accuracy of data, ability to follow directions, accuracy of results and conclusions, ability to properly manipulate the variable while keep other conditions controlled are all areas that can be assessed. You may choose to put all the data on a single chart to capture a picture of the sensory preferences of the WOWBugs.