AP Biology

Animal Behavior

Essential Question

How do species interactions affect the survival of an ecosystem?

Understandings

*Students will understand that:*

Organisms interact with each other to communicate information essential for survival.

Communication can be behavioral or physiological.

Knowledge:

*Students will know:*

Organisms respond to changes in their environment through behavioral and physiological mechanisms.

Organisms exchange information with one another in response to internal changes and external cues, which can change behavior.

Individuals can act on information and communicate it to others.

Communication occurs through various mechanisms – signaling via behaviors, visual, audible, tactile, electrical and chemical.

Responses to information and communication of information are vital to natural selection and evolution.

Skills:

*Students will be able to:*

Use Chi-Square to determine statistically significant data.

Design and conduct an experiment to test the behavior of an organism.

Analyze and interpret data from their conducted experiment.

Curriculum Standards - 2019 College Board Course & Exam Description

Explain how the behavioral and/or physiological response of an organism is related to changes in internal or external environment.

Explain how the behavioral responses of organisms affect their overall fitness and may contribute to the success of the population.

Performance Task or Design Thinking Culminating Assessment

Behavior lab – Guided Inquiry Lab. Students will design and conduct an experiment to test animal behavior (fruit flies, pill bugs). They will then statistically analyze the data collected, then interpret the results to form conclusions. Student groups will produce a poster of their experiment including a summary of the procedure, data tables, statistics and data analysis.

Other Evidence (formative assessments, summative assessments)

*what homework and other out of class experiences are needed to equip students?*

Class discussion.

Read text and annotate teacher notes.

Animal Behavior FRQ from AP Biology

Topic Overview

*Order of topics presented (Calendar)*

Read/annotate notes for homework.

Chi Square learning

Animal Behavior lab

Learning Plan

*Learning Activities - What experiential or inductive learning will help students to explore the big ideas and questions to achieve desired understandings? for their expected performances?*

Animal Behavior Lab

Resources

Biology in Focus 2nd edition

Animal Behavior Lab – directions, fruit flies (or pill bugs), choice chambers, student supplied samples to test, cotton balls, water, large poster for presentation

Animal behavior FRQ