



Natural Selection of Blanched Lizards at White Sands Middle School

Overview

Students are introduced to the phenomenon of camouflage in desert animals. They then move through activities highlighting major stages of evolution by natural selection in the context of blanched lizards at White Sands National Monument in New Mexico. As students participate in activity stations, they learn that changes in genes lead to different proteins in organisms, that variation in traits may lead to differential survival and reproduction in a particular environment, and that over time, this leads to a change in the frequency of specific traits in a population. Students will apply what they learn about blanched lizards at White Sands to explain the process of natural selection in rock pocket mice at the Valley of Fires in Carrizozo, NM.

Phenomenon

Species can develop camouflage to adapt to changes in their environment.

Next Generation Science Standards

MS-LS3-1 Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.

MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' chance of surviving and reproducing in a specific environment.

MS-LS4-6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.

Asombro lessons are aligned with the three-dimensional learning model of the Next Generation Science Standards.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Developing and Using Models	LS3.A Inheritance of Traits	Structure and Function
Analyzing and Interpreting Data	LS3.B Variation of Traits	Cause and Effect
Using Mathematics and Computational Thinking	LS4.B Natural Selection	Patterns
Constructing Explanations and Designing Solutions	LS4.C Adaptation	Stability and Change

Common Core State Standards

RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

RST.6-8.4: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.

Asombro Staff: _____

Date: _____