

Landscape of Fear

Students join ecologists in the field to investigate the landscape of fear, analyzing the behaviors and traits that can help a species survive—whether it's the structure of a plant, or the response of prey to a lurking predator.

Anchor Phenomenon

Thanks to camera trap footage, we can see zebras, wildebeests, and some edible plants within the Serengeti National Park ecosystem. We observed that when they hear safe sounds, the animals do not respond, and continue grazing or walking. When they hear a predator, they stop grazing and move away.

Overview

LESSON 1

Driving Question: In what ways do species increase their chances of reproduction and survival?

Students work as research assistants to analyze the behaviors and traits of animals and plants that increase their chances of survival and reproduction. They research sense receptors and explore their relationship to behavior and memory storage. Students use the evidence they gather to write final reports for their research project.

Learning Objectives

- Obtain, evaluate, and communicate information about how the responses of sensory receptors to different stimuli cause different animal behaviors
- Use scientific reasoning to explain how characteristic animal and plant behaviors affect their chances of successful reproduction and survival
- Use evidence and scientific reasoning to construct an argument about the causes of certain animal behaviors

Key Vocabulary

- behavior
- central nervous system
- ecosystem
- memory
- nerve
- nerve cell
- neuron
- peripheral nervous system
- population
- predator

- prey
- reaction time
- reproduction
- response
- sense
- sensory
- receptor
- stimulus, stimuli
- structure
- survival