

Unit 3 - Structures and Functions

Content Area: **Science**
Course(s): **Science 4**
Time Period: **September**
Length: **Marking Period 2**
Status: **Published**

Unit Summary

In this unit of study, students develop an understanding that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. The crosscutting concepts of Systems and System Models are called out as organizing concepts for this disciplinary core idea. Students are expected to demonstrate grade-appropriate proficiency in Engaging in Argument from Evidence. Students are also expected to use this practice to demonstrate understanding of the core idea.

Standards

LA.W.4.1	Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
SCI.4.4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
SCI.4.4-LS1	From Molecules to Organisms: Structures and Processes
SCI.4.4-LS1-2.2.1	Use a model to test interactions concerning the functioning of a natural system.
SCI.4.4-LS1-1.7.1	Construct an argument with evidence, data, and/or a model.
SCI.4.4-LS1-2.LS1.D.1	Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions.
SCI.4.4-PS4-1.PS4.A.2	Waves of the same type can differ in amplitude (height of the wave) and wavelength (spacing between wave peaks).
TECH.8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
TECH.8.1.5.A.CS2	Select and use applications effectively and productively.

Student Learning Objectives

SLO 1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. (4-LS1-1)

Essential Questions

How do the internal and external parts of plants and animals support their survival, growth, behavior, and reproduction?

Enduring Understandings

Students will understand that:

- plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)
- a system can be described in terms of its components and their interactions (4-LS1-1).

Application

Students will be able to independently use their learning to:

- describe a system in terms of its components and their interactions.
- construct an argument with evidence, data, and/or a model.
- construct an argument to support the claim that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. Examples of structures could include:
 - thorns
 - stems
 - roots
 - colored petals
 - heart
 - stomach
 - lung
 - brain
 - skin

Skills

Students will be skilled at: