

Educational Resources from *Phenomenon Science Education*
Student Proficiency Goals for **NGSS 4-LS1-1**



Information about 4-LS1-1

NGSS Performance Expectation 4-LS1-1.

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Clarification Statement.

Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.

Assessment Limits.

Assessment is limited to macroscopic structures within plant and animal systems.

Science and Engineering Practice (Engaging in Argument from Evidence)

- Construct an argument with evidence, data, and/or a model.

Disciplinary Core Idea (LS1.A: Structure and Function)

- Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.

Crosscutting Concept (Systems and System Models)

- A system can be described in terms of its components and their interactions.

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Student Proficiency Goals

SEP (Engaging in Argument from Evidence):

- Students describe evidence, data, and/or modeling results that show plants and animals have structures that support survival, growth, behavior, and/or reproduction.
- Students determine if and how well evidence, data, and/or model results support a claim, including the idea that plants and animals have structures that function to support survival, growth, behavior, and/or reproduction.
- Students construct a chain of reasoning, supported by evidence, data, and/or modeling results, that describes plants and animals as having structures that function to support survival, growth, behavior, and reproduction.

DCI (LS1.A Structure and Function):

- Students know that plants and animals have both internal and external structures.
- Students know that plants and animals have structures that serve specific functions.
- Students know that plants and animals have structures that serve various functions in growth.
- Students know that plants and animals have structures that serve various functions in survival.
Students know that plants and animals have structures that serve various functions in behavior.
- Students know that plants and animals have structures that serve various functions in reproduction.
- Students know that some structures serve functions in more than one system and with more than one outcome.

CCC (Systems and System Models):

- Students consider that plants and animals have structures that can be thought of collectively as systems.
- Students consider that plants and animals have structures that interact with each other as components of a system.
- Students consider that different systems within an organism can interact to support the function of each system and the survival, growth, behavior, and reproduction of the organism as a whole.