

Old Unit 4: Traits of Plants and Animals (Science Template)

Content Area: **Science**
Course(s): **Science 3, Science 4**
Time Period: **April**
Length: **3 weeks**
Status: **Published**

Unit Summary

In this unit of study, students acquire an understanding that organisms have different inherited traits and that the environment can also affect the traits that an organism develops. The crosscutting concepts of patterns and cause and effect are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in analyzing and interpreting data, constructing explanations, and designing solutions. Students are also expected to use these practices to demonstrate understanding of the core ideas.

Standards

LA.W.3.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
LA.RI.3.1	Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
LA.RI.3.2	Determine the main idea of a text; recount the key details and explain how they support the main idea.
LA.RI.3.3	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
LA.SL.3.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
LA.SL.3.4	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
MA.3.MD.B.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
3-LS3-2	Use evidence to support the explanation that traits can be influenced by the environment.
3-LS3-1	Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

Student Learning Objectives

SLO 1 Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. [Clarification Statement:

Patterns are the similarities and differences in traits shared between offspring and their parents, or among siblings. Emphasis is on organisms other than humans.] [Assessment Boundary: Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to non-human examples.] (3-LS3-1)

Use evidence to support the explanation that traits can be influenced by the environment. [Clarification Statement: Examples of the environment affecting a trait could include normally tall plants grown with insufficient water are stunted; and, a pet dog that is given too much food and little exercise may become overweight.] (3-LS3-2)

Driving Questions

What kinds of traits are passed on from parent to offspring?

What environmental factors might influence the traits of a specific organism?

DCI's Disciplinary core ideas

Part A:

- Similarities and differences in patterns can be used to sort and classify natural phenomena (e.g., inherited traits that occur naturally).
- Many characteristics of organisms are inherited from their parents.
- Different organisms vary in how they look and function because they have different inherited information.

Part B:

- Cause-and-effect relationships are routinely identified and used to explain change.
- Other characteristics, which can range from diet to learning, result from individuals' interaction with the environment.
- Many characteristics involve both inheritance and environment.
- The environment also affects the traits that an organism develops.