Unit 5: Continuing the Cycle of Plants and Animals

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

Unit Summary

In this unit of study, students develop an understanding of the similarities and differences in organisms' life cycles. In addition, students use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. The Crosscutting Concepts of Patterns and Cause and Effect are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in Developing and Using Models and Constructing Explanations and Designing Solutions. Students are also expected to use these practices to demonstrate understanding of the core ideas.

Standards

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.RI.3.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
MA.3.NBT	Number and Operations in Base Ten
LA.RI.3.5	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
LA.RI.3.7	Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
MA.3.MD.B	Represent and interpret data.
MA.3.MD.B.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.
LA.W.3.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
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.
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.3.1.C	Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
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.

LA.SL.3.5	Use multimedia to demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

Student Learning Objectives

Students will learn to:

- develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. [Clarification Statement: Changes organisms go through during their life form a pattern.] [Assessment Boundary: Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.] (3-LS1-1)
- use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. [Clarification Statement: Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and, animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring.] (3-LS4-2)

Essential Questions

Do all living things have the same life cycle?

Are there advantages to being different?

Enduring Understandings

Students will understand that:

- science findings are based on recognizing patterns.
- similarities and differences in patterns can be used to sort and classify natural phenomena.
- patterns of change can be used to make predictions.
- reproduction is essential to the continued existence of every kind of organism.
- plants and animals have unique and diverse life cycles.
- cause-and-effect relationships are routinely identified and used to explain change.
- sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.

Application

Skills