Alaska's Wild Wonders – Predators vs. Prey

Learning standards

Alaska's Wild Wonders best applies to the following list of Science and English/Language Arts learning standards for third, fourth, and fifth grades. This list is not exhaustive, and the content of Wild Wonders can be adapted, simplified, or sophisticated with support from educators to cover additional learning standards at various grade levels.

K-12 Science Standards for Alaska
To find the full set of learning standards or for more information:
https://education.alaska.gov/standards/science

Standards:
3-LS1-1, 3-LS2-1, 3-LS4-3, 3-LS3-2
4-LS1-1, 4-LS1-2
5-LS1-C
3-5-ETS1-1

Third grade:
3-LS1-1
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, such as salmon, wooly bear caterpillars, and frogs go through during their life form a pattern.]

3-LS2-1
Construct an argument that some animals form groups that help members survive. [Clarification Statement: Alaska examples may include wolves, musk ox, caribou, and schools of fish.]

3-LS4-3
Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. [Clarification Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.]

3-LS3-2
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; a pet dog that is given too

much food and little exercise may become overweight; and, comparison of plants and animals in Arctic regions versus non-Arctic regions.]

Fourth grade:
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, skin, gills, scales, and bones.] *[Assessment Boundary: Assessment is limited to macroscopic structures within plant and animal systems.]*

4-LS1-2
Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways. [Clarification Statement: Emphasis is on systems of information transfer. Examples may include salmon homing, responses of marine invertebrates to sound and smell, and sonar communication among whales and other marine mammals. *[Assessment Boundary: Assessment does not include the mechanisms by which the brain stores and recalls information or the mechanisms of how sensory receptors function.]*
    LS1.D: Information Processing
        o   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.

Fifth grade:
5-LS1-C
Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion.
(Secondary)

3-5-ETS1-1
Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
    ETS1.A: Defining and Delimiting Engineering Problems
        o   Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account.

Alaska English/Language Arts Standards

To find the full set of learning standards or for more information:
https://education.alaska.gov/standards/english-language-arts

Reading Standards for Informational Text

3.1, 3.3, 3.7

4.1, 4.3, 4.7

5.1, 5.3, 5.7

Grade 3 students:	Grade 4 students:	Grade 5 students:
Key Ideas and Details	**Key Ideas and Details**	**Key Ideas and Details**
1. Ask and answer questions to demonstrate understanding of a text, (e.g., explaining what the text says explicitly, making basic inferences and predictions), referring explicitly to the text as the basis for the answers.	1. Locate explicit information in the text to explain what the text says explicitly and to support inferences drawn from the text.	1. Locate explicit information in the text to explain what the text says explicitly and to support inferences drawn from the text.
3. Describe the relationship or connection among 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.	3. Explain relationships (e.g., cause-effect) among events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	3. Explain the relationships (e.g., cause-effect) or interactions among two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
Integration of Knowledge and Ideas	**Integration of Knowledge and Ideas**	**Integration of Knowledge and Ideas**
7. Use information gained from illustration (e.g., maps, photographs), and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).	7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.