Southern Exposure

Education Content Standards

Alaska Science Performance Standards & Grade Level Expectations (GLEs):

5TH GRADE:

The student demonstrates an understanding of science as an inquiry based process by:

SA1.1 (5-8) asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.

SA2.1 (5) supporting the student's own statements with facts from a variety of resources and by identifying their sources.

Student demonstrates an understanding of the concepts of life science by:

SC2.2 (5) explaining how external features and internal systems (i.e. respiratory, excretory, skeletal, circulatory and digestive) of plants and animals may help them grow, survive and reproduce.

SC3.1 (5) diagramming how matter and energy are transferred within and between living and nonliving things.

Student demonstrates an understanding that problem solving involves different ways of thinking by:

SE3.1 (5) describing the various effects of an innovation (e.g., snow machines, airplanes, immunizations) on the safety, health and environment of a community.

6TH GRADE:

The student demonstrates an understanding of science as an inquiry based process by:

SA1.1 (5-8) asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.

SA2.1 (6) identifying and differentiating fact from opinion.

Student demonstrates an understanding of the concepts of life science by:

SC2.2 (6) identifying basic behaviors (e.g. migration, communication, hibernation) used by organisms to meet the requirements of life.

SC3.1 (6) recognizing that organisms can cause physical and chemical changes (e.g. digestion, growth, respiration, photosynthesis) to matter and recognizing the importance of energy transfer in these changes.

Student demonstrates an understanding that problem solving involves different ways of thinking by:

SE2.2 (6) Comparing the student's work to the work of peers in order to identify multiple paths that can be used to investigate a question or problem.

SE3.1 (6) describing the various effects of innovation on a global level.

7TH GRADE:

The student demonstrates an understanding of science as an inquiry based process by:

SA1.1 (5-8) asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.

SA2.1 (7) identifying and evaluating the sources used to support scientific statements.

Student demonstrates an understanding of the concepts of life science by:

SC2.2 (7) identifying the seven levels of classification of organisms.

SC3.2 (7) classifying organisms within a food web as producers, consumers, or decomposers.

The student demonstrates an understanding that problem solving involves different ways of thinking by:

SE2.2 (7) comparing the student's work to the work of peers in order to identify multiple paths that can be used to investigate a question or problem.

SE3.1 (7) recognizing the effects of a past scientific discovery, invention, or scientific breakthrough (e.g. DDT, internal combustion engine).

8TH GRADE:

The student demonstrates an understanding of science as an inquiry based process by:

SA1.1 (8) asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.

SA2.1 (8) recognizing and analyzing differing scientific explanations and models.

Student demonstrates an understanding of the concepts of life science by:

SC2.1 (8) placing vertebrates into correct classes of taxonomy based on external, observable features.

SC3.1 (8) stating that energy flows and that matter cycles but is conserved within an ecosystem.

Student demonstrates an understanding that problem solving involves different ways of thinking by:

SE2.2 (8) Comparing the student's work to the work of peers in order to identify multiple paths that can be used to investigate and evaluate potential solutions to a question or problem.

SE3.1 (8) predicting the possible effects of a recent scientific discovery, invention or scientific breakthrough.

National Science Education Standards:

Content Standard A: Science & Inquiry
- Abilities necessary to do scientific inquiry (5-8)
- Understanding about scientific inquiry (5-8)

Content Standard B: Physical Sciences
- Transfer of Energy (5-8)

Content Standard C: Life Sciences
- Structure and function in living systems (5-8)
- Populations and ecosystems (5-8)

Content Standard G: History and Nature of Science
- Science as a human endeavor (5-8)