Content Area: Science
Standard: Earth Systems Science

Prepared Graduates:
➢ Describe how humans are dependent on the diversity of resources provided by Earth and Sun

Grade Level Expectation: First Grade

Concepts and skills students master:
1. Earth's materials can be compared and classified based on their properties

Evidence Outcomes	**21st Century Skills and Readiness Competencies**
Students can: a. Identify and represent similarities and differences such as the texture, size, color, and shape of various materials on Earth b. Sort, group, and classify Earth's materials based on observations and explorations c. Make predictions about how a material on Earth might be useful based on its properties d. Communicate ideas about the differences between soils from different places e. Use a variety of tools to observe, analyze, record, and compare Earth's materials f. Analyze the impact of reducing, reusing, and recycling various materials	**Inquiry Questions:** • How are various materials on Earth similar and different? • How do the properties of various materials on Earth affect the way we can use them? • How does soil differ from different places? **Relevance and Application:** • Humans use natural resources in our daily lives and in a variety of ways. For example, wood for building and furniture. • There are limits on resources and materials extracted from the natural environment. **Nature of Science:** • The same materials can be sorted in a number of ways based on different characteristics. • Scientists make predictions based on what they know.

Content Area: Science
Standard: Life Science

Prepared Graduates:
➢ Analyze how various organisms grow, develop, and differentiate during their lifetimes based on an interplay between genetics and their environment

Grade Level Expectation: First Grade

Concepts and skills students master:
1. Offspring have characteristics that are similar to but not exactly like their parents' characteristics

Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can: a. Use evidence to analyze similarities and differences between parents and offspring in a variety of organisms including both plants and animals b. Analyze and interpret data regarding the similarities and differences between parents and offspring c. Question peers about evidence used in developing ideas about similarities and differences between parents and offspring d. Interpret information represented in pictures, illustrations, and simple charts	**Inquiry Questions:** • How are you like your parents? • In what ways do offspring resemble their parents? **Relevance and Application:** • Diversity – or variation – exists within populations of living organisms. • Family photographs often reveal similar physical traits. • Parents eye color can be different their child's. **Nature of Science:** • Compare and contrast data, recognizing that this is a process scientists would do in their work. • Question peers about the evidence used in developing their ideas about the similarities and differences between parents and offspring.

Content Area: Science
Standard: Life Science

Prepared Graduates:
➢ Analyze the relationship between structure and function in living systems at a variety of organizational levels, and recognize living systems' dependence on natural selection

Grade Level Expectation: First Grade

Concepts and skills students master:
2. An organism is a living thing that has physical characteristics to help it survive

Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can: a. Identify organisms and use evidence based scientific explanations for classifying them into groups b. Analyze and interpret data about the needs of plants and animals c. Use direct observations and other evidence to support ideas concerning physical characteristics that help plants and animals survive	**Inquiry Questions:** • How do the needs of plants and animals differ? • What helps a specific plant or animal survive?
	Relevance and Application: • Animals and plants have characteristics that help them survive in the local environment. For example, the thick fur of animals such as raccoons, bears, and mule deer helps them survive the cold winters in Colorado. • A living thing can be harmed if needed resources are lacking.
	Nature of Science: • Ask testable questions about the needs of an organism. • Predict the outcome for an organism if a need is removed.