



Science - Grade 1

Course Description:

The Indian Community School cultivates an enduring cultural identity and critical thinking by weaving indigenous teachings with a distinguished learning environment. The curriculum for this course is developed from the [Next Generation Science Standards](#) and the framework of the [ICS Our Ways Cultural Calendar](#). In this course, first grade students will focus on collaborative problem solving through investigating, making observations, and exploration to solve problems through units of study. The units of study that will be covered are: Light and Sound, Observing the Sun, Moon and Stars, Animal/Plant Adaptations, and Animated Storytelling which will apply technology skills of coding.

Enduring Understandings:

- Scientists plan, design, investigate and build devices to solve problems.
- Scientists make observations to predict and construct evidence-based accounts.
- Scientists read texts and use media in order to determine patterns in behavior.
- Scientists observe patterns in the natural world to describe phenomena and use as evidence.
- Scientists design simple tests to gather evidence to support or refute ideas about causes.
- Engineers ask questions and gather information to define a simple problem in order to make change.
- Engineers develop a simple sketch, drawing, or physical model in order to illustrate how the shape of an object functions.
- Engineers analyze data from tests comparing objects in order to measure the strengths and weaknesses of how each performs.

PHYSICAL SCIENCE

- I can plan and explore how vibrating materials can make sound and that sound can make materials vibrate. (1-PS4-1)
- I can show evidence that vibrating materials can make sound and that sound can make materials vibrate. (1-PS4-1)
- I can make observations to show evidence of how objects in darkness can be seen only when illuminated. (1-PS4-2)
- I can plan investigations to model the effects of placing different materials in the path of the beam of light. (1-PS4-3)
- I can conduct investigations to model the effects of placing different materials in the path of a beam of light. (1-PS4-3)
- I can use tools and materials to design a device that uses light or sound to solve the problem of communicating over a distance. (1-PS4-4)
- I can build a device that uses light or sound to solve the problem of communicating over a distance. (1-PS4-4)



LIFE SCIENCE

- I can use materials to design a solution to a human problem. (1-LS1-1)
- I can design a solution to mimic how animals use their external parts to help them survive, grow, and meet their needs. (1-LS1-1)
- I can read text to determine patterns in behavior of parents and offspring that help offspring survive. (1-LS1-2)
- I can use media to determine patterns in behavior of parents and offspring that help offspring survive. (1-LS1-2)
- I can make observations and gather evidence to show that young plants are similar to a full-grown plant. (1-LS3-1)
- I can make observations and gather evidence to show that animals are similar to their parents. (1-LS3-1)

EARTH AND SPACE SCIENCE

- I can use observations of the sun, moon, and stars to describe patterns that can be predicted. (1-ESS1-1)
- I can make observations at different times of year to relate the amount of daylight to the time of year. (1-ESS1-2)

ENGINEERING, TECHNOLOGY, AND APPLICATIONS OF SCIENCE

- I can ask questions, make observations, and gather information in order to solve a simple problem. (K-2-ETS1-1)
- I can define a problem that can be solved developing a new object or tool. (K-2-ETS1-1)
- I can develop a sketch, drawing, or model to illustrate how the shape of an object helps it function to solve a problem. (K-2-ETS1-2)
- I can analyze data from the tests of two objects to determine which object is better to solve a given problem. (K-2-ETS1-3)
- I can analyze the design of two objects to compare the strengths and weaknesses by how each performs. (K-2-ETS1-3)