



Science - Grade K5

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](#). This course will focus on observations of patterns in the natural and designed world(s) through the three of the disciplinary core areas: life sciences, earth and space sciences, and physical sciences. The life science portion of this course will center on what plants and animals need to survive. Weather will be the topic of the earth and space science discipline area. Designing simple tools as well as learning about the effects of pushes and pulls on an object applies to physical life science.

Enduring Understandings:

- Scientists create an argument with supporting evidence to demonstrate how plants and animals (including humans) can change the environment to meet their needs.
- Scientists use observations to describe patterns in the natural world and to answer scientific questions.
- Scientists observe and collect data and that can be used to make comparisons in the natural world.
- Scientists ask questions based on observations in order to find more information about the designed world.
- Scientists plan and conduct an investigation in collaboration with peers in order to answer questions or test solutions to problems.
- Scientists analyze data from tests of an object, or tool, to determine if it works as intended.
- Engineers define a simple problem that can be solved through the development of a new or improved object or tool.
- Engineers develop a sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

PHYSICAL SCIENCE

- I can identify if an object is pushed or pulled. (K-PS1-1)
- I can compare the speed or direction of objects when pushed or pulled. (K-PS1-1)
- I can plan and carry out an investigation about how an object moves. (K-PS2-1)
- I can gather information about a solution to decide if a design is working. (K-PS2-2)
- I can change the speed or direction of an object by pushing or pulling. (K-PS2-2)
- I can make observations to determine the effect of the sun on the Earth's surface. (K-PS3-1)
- I can design and build a structure to reduce warming from sunlight on an area. (K-P53-2)

LIFE SCIENCE

- I can use observations to describe patterns of what plants and animals need to survive. (K-LS1-1)



EARTH AND SPACE SCIENCE

- I can share observations and describe local weather patterns. (K-ESS2-1)
- I can explain how plants and animals change their environment to meet their needs. (K-ESS2-2)
- I can use a model to show the relationship between the needs of plants, animals, and the places they live. (K-ESS3-1)
- I can ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather. (K-ESS3-2)
- I can discuss ways to reduce the impact of humans on the land, water, air, and other living things. (K-ESS3-3)

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 design a tool or object and discuss how it can solve a simple problem. (K-2-ETS1-1)
- I can draw or make a model that helps to explain how an object's shape can help it 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)