



Science - Grade 3

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, third grader students will formulate answers to questions based on cause and effect of the weather, organisms, environments, and forces of objects. Based on the questions they ask, students will develop and use models, plan and carry out investigations, analyze and interpret data, construct explanations, design solutions, and articulate the results of their findings.

Enduring Understandings:

- Scientists use data to represent typical weather conditions expected during the seasons.
- Scientists use cause and effect to identify relationships between organisms, places, things, and events and how they change over time.
- Scientists ask questions, analyze data, and interpret evidence to solve problems and make decisions.
- Scientists recognize and analyze multiple points of view to explain the ideas and actions of living things and how they survive in their environment.
- Scientists study and compare organisms, places, things, ideas and events to make sense of the world.
- Scientists learn about the natural world which can lead to new and improved technologies that are developed through the engineering design process.
- Scientists plan and conduct investigations collaboratively to produce data to serve as the basis for evidence, using fair test in which variables are controlled and the number of trials considered.
- Engineers design problem solving tools and create prototypes that will improve daily life.
- Engineers plan and carry out tests to see if their solution meets the given criteria for solving problems which leads to successful outcomes.

PHYSICAL SCIENCE

- I can plan an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. (3-PS2-1)
- I can conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. (3-PS2-1)
- I can make observations of an object's motion to provide evidence that a pattern can be used to predict future motion. (3-PS2-2)
- I can measure an object's motion to provide evidence that a pattern can be used to predict future motion. (3-PS2-2)
- I can ask questions to determine cause and effect relationships of electric interactions between two objects not in contact with each other. (3-PS2-3)
- I can ask questions to determine cause and effect relationships of magnetic interactions between two objects



not in contact with each other. (3-PS2-3)

- I can define a simple design problem that can be solved by applying scientific ideas about magnets. (3-PS2-4)

LIFE SCIENCE

- I can develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. (3-LS1-1)
- I can construct an argument that some animals form groups that help members survive. (3-LS2-1)
- I can analyze and interpret data to provide evidence that plants have traits inherited from parents and that variation of these traits exists in a group of similar organisms. (3-LS3-1)
- I can analyze and interpret data to provide evidence that animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. (3-LS3-1)
- I can use evidence to support the explanation that traits can be influenced by the environment. (3-LS3-2)
- I can analyze and interpret data from fossils to provide evidence of the organisms and environments in which they lived long ago. (3-LS4-1)
- I can use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. (3-LS4-2)
- I can 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. (3-LS4-3)
- I can make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. (3-LS4-4)

EARTH AND SPACE SCIENCE

- I can represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. (3-ESS2-1)
- I can obtain and combine information to describe climates in different regions of the world. (3-ESS2-2)
- I can make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. (3-ESS3-1)

ENGINEERING, TECHNOLOGY, AND APPLICATIONS OF SCIENCE

- I can define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. (3-5-ETS1-1)
- I can generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. (3-5-ETS1-2)
- I can plan fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. (3-5-ETS1-3)
- I can carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. (3-5-ETS1-3)