



Shakopee Area Catholic School
Science Standards and Benchmarks
Grade Level: 2
(FOSS™) Minnesota Science Standards

HISTORY AND NATURE OF SCIENCE

Standard: The student will understand that science is a human endeavor practiced throughout the world.

1. Recognize that repeating a scientific investigation will lead to very similar results.
2. Recognize that scientific investigations generally work the same way in different places.
3. Give examples of scientific advances throughout history.
4. Recognize that everyone can do science and invent things and ideas.

Standard: The student will raise questions about the world, make careful observations, and seek answers.

Recognize and describe patterns in data.

PHYSICAL SCIENCE

Standard: The student will know that objects move in various ways.

1. Observe and describe how objects move in a variety of ways, including, but not limited to, a straight line, a curve, a circle, back and forth and at different speeds.
2. Observe that push and pull forces can make objects move.

EARTH AND SPACE SCIENCE

Standard: The student will investigate weather cycles.

1. Observe, record, and describe characteristics in daily weather and seasonal cycles.
2. Recognize instruments used to observe weather Examples: thermometer, rain gauge, wind sock, weather maps
3. Record weather data using weather journals, charts, and maps
4. Explain how weather patterns occur continually on Earth.
5. Explain that air temperature, humidity, wind speed and direction, and precipitation make up the weather in a particular place and time.
6. Investigate and compare weather changes from day to day and place to place.
7. Explain the difference between weather and climate.
8. Describe the differences among the various forms of precipitation (rain, snow, sleet, and hail).

Standard: Students will recognize the changes that occur in the sky in a 24 hour day.

Observe and describe the changes in the position of the sun and the moon.

LIFE SCIENCE

Standard: The student will recognize that animals have life cycles.

Describe life cycles of animals.

Standard: Describe survival traits of living things, including color, shape, size, texture, and covering.

1. Classify animals according to physical traits.
2. Identify developmental stages of animals.
3. Describe a variety of habitats and natural homes of animals

Standard: The student will understand that organisms live in different environments.

1. Observe and describe some features of animals that allow them to live in specific environments.
1. Understand that living organisms need to be adapted to their environment to survive.

2. Know that animals and plants can be associated with their environment by an examination of their structural characteristics.

Standard: The student will understand that biological populations change over time.

Know that some kinds of organisms that once lived on Earth are now extinct, including, but not limited to, dinosaurs, trilobites, and mammoths.

Standard: The student will investigate feeding relationships among organisms.

1. Observe and describe predator and prey relationships.
2. Compare and contrast plant eaters and meat eaters.
3. Know that plants and animals are dependent upon each other for survival.
4. Know that there are many different plants and animals living in many different kinds of environments

Standard: The student will recognize that people have basic needs.

Know that people need water, food, air, waste removal and a particular range of temperature in their environment, just like other animals.

THE NATURE OF SCIENCE

Standard: The student uses the scientific processes and habits of mind to solve problems.

1. Know that in order to learn, it is important to observe the same things often and compare them.
2. Know that difference between verified observation and personal interpretation.
3. Describe objects as accurately as possible and compare observations with those made and reported by others.
4. Make new observations when there is disagreement among observers or among successive observations.
5. Demonstrate the ability to work with a team, but still reach and communicate one's own conclusions about findings.
6. Use tools, such as thermometers, magnifiers, rulers or balances to investigate, observe, measure, design, and build things.
7. Measure objects in standard units and include units in reports measurements with simple calculations
8. Draw pictures and write brief coherent descriptions that correctly portray key features of an object.
9. Recognize and explain that people are more likely to believe ideas when they are supported by observations.
10. Explain that some events can be predicted with near certainty, such as a sunrise and sunset, and some cannot, such as storms.
11. Explain that sometimes a person can make general discoveries about a group of objects or organisms, such as insects, plants, or rocks, by studying just a few of them, even though the group may vary in details. Understand that this is not inconsistent with the existence of biological variation.
12. Make simple line and bar graphs (e.g., track daily changes in outdoor air temperature).

Standard: The student understands that science, technology, and society are interwoven and interdependent.

1. Know that scientists and technologists use a variety of tools to obtain information in more detail and to make work easier.
2. Know ways in which tools are used by scientists.