

FOURTH GRADE SCIENCE



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Welcome to Fourth Grade! Our goal is to help you understand how your child will engage in science this year. This letter will cover the science expectations for Fourth Grade and the accompanying resources to provide ideas for supporting your child at home. For additional assistance and questions, please contact your child's teacher at their school.

In Fourth Grade, there are eight science content standards. The standards are designed to engage children in constructing explanations that allow them to gain an understanding of the natural world. Your child will observe the stars, planets, moon, and sun. Children will use weather charts to predict weather events. They will investigate the water cycle, light, sound, and the effects of forces on objects. Children will also model the flow of energy and the role of organisms in ecosystems. While participating in these activities, they will learn to follow rules to stay safe.

FOURTH GRADE SCIENCE CONCEPTS

EARTH SCIENCE

Explore and explain how the physical attributes of stars and planets are similar and different.

Develop models of the relationship and effects of the position of the Earth, moon, and sun.

Investigate and model the flow of energy and pathways of the water cycle.

Explain and predict weather events and patterns using weather maps and data.

PHYSICAL SCIENCE

Investigate the nature of light, its interactions, and how it can be used to communicate.

Investigate how sound is produced and changed and how it can be used to communicate.

Investigate the relationship between balanced and unbalanced forces.

LIFE SCIENCE

Develop models of the roles of organisms and energy in ecosystems.

How will your child be engaged in learning science?

Science and Engineering Practices

Students will obtain information by asking questions, planning and carrying out investigations, and using models to gather data. They will utilize information by analyzing data, constructing explanations, developing arguments from evidence, and using models to communicate their ideas. This is important in science because students are doing the same activities that scientists do as part of their work. This will assist students in understanding the process of science and set them up for success in future grades and courses.

Crosscutting Concepts

Students will identify cause and effect, scale, proportion, and quantity, and patterns within the solar system. They will study the role of energy and matter, systems, structure and function, cause and effect, stability and change, and patterns in the water cycle, weather events, and ecosystems. They will also examine cause and effect, structure and function, and patterns around light, sound, and forces. These ideas will assist students in analyzing different phenomena in science across all science courses as they move to later grades.

Phenomenon

Students will explore the explanations behind phenomena such as space exploration, eclipses, fog, storms, funhouse mirrors, and local ecosystems.

Getting to know your child's teacher is important and communication with them throughout the year will support your child's individual growth while learning science. The resource links below are provided to help support learning at home as you engage your child in meaningful work while they are learning science. If at any time you have additional questions or need to request additional support, please reach out to your child's teacher.

