

2nd Grade– Science

CONTENT: Earth and Space Sciences

Skills Based on Academic Content Standards
Recognize that there are more stars in the sky than anyone can easily count.
Observe and describe how the sun, moon and stars all appear to move slowly across the sky.
Observe and describe how the moon appears a little different every day but looks nearly the same again about every four weeks.
Observe and describe that some weather changes occur throughout the day and some changes occur in a repeating seasonal pattern.
Describe weather by measurable quantities such as temperature and precipitation.

CONTENT: Life Sciences

Skills Based on Academic Content Standards
Explain that animals, including people, need air, water, food, living space and shelter; plants need air, water, nutrients (e.g., minerals), living space and light to survive.
Identify that there are many distinct environments that support different kinds of organisms.
Explain why organisms can survive only in environments that meet their needs (e.g., organisms that once lived on Earth have disappeared for different reasons such as natural forces or human-caused effects).
Compare similarities and differences among individuals of the same kind of plants and animals, including people.
Explain that food is a basic need of plants and animals (e.g., plants need sunlight to make food and to grow, animals eat plants and/or other animals for food, food chain) and is important because it is a source of energy (e.g., energy used to play, ride bicycles, read, etc.).
Investigate the different structures of plants and animals that help them live in different environments (e.g., lungs, gills, leaves and roots).
Compare the habitats of many different kinds of Ohio plants and animals and some of the ways animals depend on plants and each other.
Compare the activities of Ohio's common animals (e.g., squirrels, chipmunks, deer, butterflies, bees, ants, bats and frogs) during the different seasons by describing changes in their behaviors and body covering.
Compare Ohio plants during the different seasons by describing changes in their appearance.

CONTENT: Physical Sciences

Skills Based on Academic Content Standards

Explore how things make sound (e.g., rubber bands, tuning fork and strings).
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Explore and describe sounds (e.g., high, low, soft and loud) produced by vibrating objects.

Explore with flashlights and shadows that light travels in a straight line until it strikes an object.
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CONTENT: Science and Technology

Skills Based on Academic Content Standards

Explain that developing and using technology involves benefits and risks.

Investigate why people make new products or invent new ways to meet their individual wants and needs.

Predict how building or trying something new might affect other people and the environment.

Communicate orally, pictorially, or in written form the design process used to make something.
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CONTENT: Scientific Inquiry

Skills Based on Academic Content Standards

Ask "how can I/we" questions.

Ask "how do you know" questions (not "why" questions) in appropriate situations and attempt to give reasonable answers when others ask questions.

Explore and pursue student-generated "how" questions.

Use appropriate safety procedures when completing scientific investigations.
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Use evidence to develop explanations of scientific investigations. (What do you think? How do you know?)
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Recognize that explanations are generated in response to observations, events and phenomena.
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Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, non-breakable thermometers, timers, rulers, balances and calculators and other appropriate tools).

Measure properties of objects using tools such as rulers, balances and thermometers.
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Use whole numbers to order, count, identify, measure and describe things and experiences.

Share explanations with others to provide opportunities to ask questions, examine evidence and suggest alternative explanations.
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CONTENT: Scientific Ways of Knowing

Skills Based on Academic Content Standards
Describe that scientific investigations generally work the same way under the same conditions.
Explain why scientists review and ask questions about the results of other scientists' work.
Describe ways in which using the solution to a problem might affect other people and the environment.
Demonstrate that in science it is helpful to work with a team and share findings with others.