

Course Description:

In First Grade Science, students in this course will complete projects that are designed to allow for exploration and discovery. Students observe their surroundings and through observations of the natural world conduct inquiries into topics related to their healthy development.

Module	Lesson Title	Objectives
Module 1: Scientists	Think Like a Scientist	- Understand how scientists view the world. - Participate in science activities safely. - Identify the difference between facts and opinions in science.
	Act Like a Scientist	- Construct scientific questions. - Show how they can be scientists. - Explain the tools and techniques scientists use. - Design a simple investigation to answer a scientific question.
Module 2: Seasons and Patterns	Seasons and Daylight Exploration	- Create a nature corner showing the four seasons. - Draw pictures representing the different seasons. - Identify seasonal patterns and their effects on the natural world.
	Patterns and the Moon	- Identify the phases of the moon. - Describe the relationship between the patterns of the moon and other cycles in nature.
Module 3: Nature and Soil	Observing and Classifying Nature	- Use simple tools and senses to observe nature. - Classify and arrange objects of nature. - Analyze natural and human-made patterns to design models and compare biological growth using evidence.
	Explore Soil	- Observe and compare different types of soil. - Explain the importance of soil for growth. - Analyze soil characteristics to classify types and describe how they separate into layers.
Module 4: Seeds and Living Things	Role of Seeds	- Sequence the stages of a plant life cycle and define germination. - Identify and label the parts of a seed and a plant. - Demonstrate how to plant seeds and illustrate the assembly of a seed starter.

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	Living and Nonliving	- Differentiate between living and nonliving things. - Classify living and nonliving things.
Module 5: Animals	Observing Animal Tracks	- Infer animal behaviors by interpreting track patterns and environmental evidence. - Identify and match animal tracks by describing physical adaptations. - Observe and record animal tracks through drawing and labeling.
	Biomimicry	- Identify and match natural structures to the human inventions they inspired. - Explain how human objects mimic plant and animal parts to meet needs. - Apply the design process to sketch and build a playground model inspired by nature.
Module 6: Birds	Birds in Nature	- Describe the birds that live in your area. - Draw pictorial representations of birds. - Describe bird behavior during the seasons.
	Flightless Birds	- Describe the characteristics of birds. - Identify unique characteristics of flightless birds.
Module 7: Basic Needs	Basic Needs of Animals	- Identify the basic needs of animals, including food, water, air, and shelter. - Observe animals in nature. - Draw animals.
	Human Needs	- Identify what humans need to survive and thrive. - Identify needs and wants of individuals and society. - Identify technology that helps people. - Apply the Engineering Design Process to create and test a tool that improves human health or well-being.
Module 8: Weather Charts and Light	Making a Weather Chart	- Observe weather. - Explain how weather patterns impact human activities. - Construct a wind vane and record weather observations for the week.
	Light	- Define light and explain why it is important. - Observe that objects in darkness can be seen only when illuminated. - Investigate the relationship between light sources and the formation of shadows.

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Module 9: Clouds	Cloud Formation	- Observe cloud formations. - Identify different cloud formations. - Investigate and record the relationship between cloud types and weather patterns over a period of time.
	Rain Clouds	- Observe how clouds are formed by making a cloud in a jar. - Explain how clouds are an important part of the water cycle.
Module 10: Adaptation and Change	How Humans Adapt	Explain ways humans adapt to changing seasons.
	Animals and Weather Change	- Observe the sensory experience of animals as they react to changes in the weather. - Illustrate how animals prepare for winter months.
Module 11: Living with Nature	Living with Nature I	- Observe the ways humans and nature support each other. - Illustrate your observations about humans and nature.
	Living with Nature II	- Illustrate helpful and harmful ways humans interact with nature. - Identify ways to help preserve the beauty of nature. - Use a celery experiment to conclude how pollution spreads in nature.
Module 12: Adaptation and Offspring	Animal Adaptation	- Identify how local animals adapt to their environment. - Illustrate animal adaptations. - Design an original animal with specific adaptations to survive in a chosen habitat.
	Animals and Offspring	- Match common animals with their offspring. - Describe physical characteristics and behaviors of animal offspring.
Module 13: Winter and Temperature	Winter and Snow Formation	- Identify various winter activities around the world. - Illustrate winter activities. - Describe how snow is made.

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	Hot and Cold	- Sort items based on temperature (hot and cold). - Use evidence to explain how adding or removing heat changes water. - Draw conclusions about how heat moves between objects based on results.
Module 14: Trees and Investigations	Comparing Tree Types	- Recognize deciduous and coniferous trees. - Compare deciduous and coniferous trees.
	Investigations	- Observe how changing a question changes an investigation/experiment. - Design an experiment to answer a question.
Module 15: Responses and Light	Wild Animal Responses	- Observe wild animals and how they respond to the seasons. - Create a collage to demonstrate how animals adapt to the different seasons.
	Light and Dark	- Describe how light travels. - Conduct investigations to determine the effect of placing objects made with different material in the path of a beam of light.
Module 16: Hibernation and Migration	Concept of Hibernation	- Describe the idea of hibernation. - Draw a picture representing hibernation. - Compare human needs in winter to needs of hibernating animals.
	Migration	- Explain why some animals migrate and others do not. - Describe the connection between animal migration and survival.
Module 17: Erosion and Water	Concept of Erosion	- Describe the forces that cause erosion. - Illustrate the concept of erosion.
	Bodies of Water	- Describe the difference between salt water and fresh water. - Identify different bodies of water and what lives in them. - List basic water-safety rules.

Module	Lesson Title	Objectives
Module 18: Constellations and the Sun	Constellations in the Night Sky	• Observe the night sky. • Locate and identify various constellations. • Illustrate constellations.
	The Sun, Our Closest Star	• Explain the reason for night and day. • Identify characteristics of the Sun.