

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 19: The Arctic and the Desert	Animals in the Arctic	- Identify the coldest parts of the world. - Compare animals in the coldest parts of the world. - Observe the insulating effect of blubber.
	Animals in the Desert	- Identify animals that live in the desert. - Describe a desert habitat. - Determine how animals survive the heat of the desert.
Module 20: Nocturnal and Diurnal	Nocturnal and Diurnal Animals	- Explain the difference between diurnal and nocturnal animals. - Identify diurnal and nocturnal animals.
	All About Bats	- Illustrate how bats fly at night. - Determine the difference between facts and opinions about bats.
Module 21: Matter	Matter and Our Senses	- Define matter. - Categorize observable properties of objects.
	States of Matter	- Illustrate examples of a gas, liquid, and solid. - Identify the three states of matter. - Describe how matter changes from one state to another.
Module 22: Sea Life	Dolphins and Sea Life	- Describe examples of plants and animals that live in the ocean. - Identify adaptations unique to sea life. - Design an ocean animal that uses specific adaptations to survive in the ocean.

Module	Lesson Title	Objectives
	Oceans	- Describe ocean ecosystems. - Determine ways to take action to protect the oceans. - Design an ocean ecosystem model.
Module 23: Tomatoes	Planting a Tomato	- Demonstrate the procedure to plant tomato seeds. - Apply understanding of basic needs to nourish and grow a tomato plant. - Draw the steps of a tomato plant's life cycle.
	Tomato Task	- Design a solution to help a tomato plant survive using inspiration from nature. - Implement the Engineering Design Cycle to solve a specific environmental problem.
Module 24: Inquiry and Magnets	Scientific Inquiry	- Predict the outcome of an experiment. - Record and chart an experiment. - Draw conclusions about sinking and floating.
	Magnets	- Explain how magnets attract and repel. - Identify objects that are magnetic and nonmagnetic. - Categorize objects as magnetic or non-magnetic by interpreting results from a self-conducted test.
Module 25: Thermometer and Other Tools	Reading a Thermometer	- Record temperatures using Fahrenheit and Celsius scales. - Distinguish between degrees Celsius and Fahrenheit. - Analyze charted temperatures to conclude when it is warmest and coldest.
	Scientific Tools & Inventions	- Identify and use scientific tools like a balance, goggles, magnifying glass, microscope, and measuring cup. - Describe an invention or discovery made by a famous scientist. - Design an original invention.
Module 26: Pond Life and Life Cycles	Life in a Pond	- Identify living things in a pond habitat. - Use their senses to observe pond life. - Illustrate a pond ecosystem to explain how organisms need each other to survive.

	Life Cycles	• Compare the life cycles of a frog and a turtle. • Compare and contrast amphibians and reptiles.
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Module 27: The Forest	Life in the Forest	- Compare and contrast different types of forests. - Identify living things that live in forests.
	The Forest Floor	- Identify what lives on a forest floor. - Make observations about what lives on a forest floor. - Construct a forest floor model to show how living and nonliving things interact.
Module 28: Maple Leaves and Machines	Characteristics of the Maple Leaf	- Explain how a maple tree changes throughout the year. - Observe and record bird activity.
	Forces & Simple Machines	- Demonstrate the difference between push and pull. - Choose a simple machine to complete a task. - Design a toy using multiple simple machines to create motion.
Module 29: Storms and Sounds	Thunder and Lightning	- Make observations about thunderstorms. - Investigate how a rainbow is made.
	Sounds Heard in Nature	- Record sensory observations of nature. - Identify types of sounds in nature.
Module 30: Sound and Motion	Sound	- Describe how vibrating objects produce sound. - Identify high- and low-pitched sounds around you. - Create an instrument out of household items. - Evaluate the effectiveness of a sound-based device for sending messages over a distance.
	Motion	- Demonstrate how movement can create sound. - Show how different objects move in different ways. - Use their bodies to show movement.
Module 31: Birdhouses	Birdhouses and Nesting Behavior	- Observe nesting behavior in local birds. - Identify various kinds of homes for birds. - Evaluate how the choice of nesting materials and location helps a bird protect its offspring from environmental threats.

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	Engineer a Bird Home	- Follow the engineering design process to design a safe home for a bird. - Identify strengths and weaknesses of designs.
Module 32: Trees	Deciduous Trees	- Identify budding deciduous trees. - Explain how deciduous trees change throughout the year. - Make connections between seeds and plants.
	Evergreen Trees	- Describe evergreen trees. - List uses for trees.
Module 33: Sunflowers and Energy	Cycle of the Sunflower	- Describe the life cycle of a sunflower. - Make observations about flowers.
	Energy From the Sun	- Describe the flow of energy from the Sun through a food chain. - Explain how humans and plants rely on the Sun's energy to survive.
Module 34: Bees and Pollination	Bees	- Observe bee behavior. - Explain facts about bees.
	Pollination	- Describe how pollination is connected to food. - Explore the process of pollination.
Module 35: Butterflies and Gardens	Comparing Butterflies	- Compare characteristics of swallowtail and monarch butterflies. - Show the steps of a butterfly life cycle. - Observe caterpillar chrysalises.
	Planting a Garden	- Design a garden. - Demonstrate understanding of how to plant and take care of a garden.

Module	Lesson Title	Objectives
Module 36: Review	Science 1 Review I	Apply skills and concepts from previous lessons.
	Science 1 Review II	Apply skills and concepts from previous lessons.