Course Description: Semester B of Second Grade Science begins with how the earth changes and how things move. Learners will be asked to recall the characteristics of different animal groups and explore how they are interconnected through food chains and cooperation. The course ends with the students taking a closer look at how plants fit into the workings of the world and the different types of resources on Earth. At the close of the course, students will have a deeper understanding and appreciation of Earth's systems and interdependence.

Module	Lesson Title	Objectives
Module 19- Quick and Slow Changes	Quickly Changing Earth	• Describe characteristics, causes, and effects of earthquakes and volcanoes. • Show a demonstration of an earthquake or a volcano.
	Slowly Changing Earth	• Describe the causes of erosion. • Locate and observe examples of erosion happening locally. • Make predictions about future erosion.
	Weathering & Erosion	• Describe how weathering contributes to the soil. • Investigate how erosion changes the earth.
Module 20- Digging into Earth	Rocks	• Distinguish between types of rocks. • Compare the properties of rocks.
	Soil	• Describe how soil is formed. • Investigate the properties of soil. • Classify soil types.
	Preventing Erosion	• Design a solution to prevent erosion. • Compare different solutions to prevent erosion. • Analyze data from tests.

Module	Lesson Title	Objectives
Module 21 – Moving All Around	Objects Moving	• Trace and compare patterns of movement. • Investigate forces on an object.
	Magnets	• Observe how magnets are used in everyday life. • Classify objects by magnetism. • Investigate how magnets can make objects move without touching them.
	Gravity	• Formulate questions about gravity. • Explain the basic concept of gravity.
	Water Bottle Drop Project	• Formulate questions about gravity. • Explain why mass does not effect gravity.
Module 22- Tiny Beasts	Characteristics of Insects	• Observe insects. • Compare characteristics of insects and their behaviors.
	Ant Behavior	• Describe the behavior of ants. • Identify different jobs of ants in their colonies.
	Spider Webs	• Observe a spider's home. • Identify characteristics of spiders. • Compare and contrast spiders and insects.
Module 23- All About Bees	Bee Behavior	• Investigate the life of bees. • Describe how bees build a honeycomb. • Design a honeycomb.
	Pollination and Seeds	• Observe the different ways seeds can be spread.

Module	Lesson Title	Objectives
	Engineering Pollination	• Design a model of the function of an animal in spreading seeds or pollinating plants.
Module 24- How Animals Work Together	Animal Cooperation	• Describe ways animals help each other. • Investigate how cooperation connects to animals.
	Relationships Between Human and Animals	• Make observations about how humans and animals interact. • Explain ways that humans and animals help each other.
	Dolphins and Prairie Dogs	• Construct an explanation for how dolphins and prairie dogs work together to survive.
	Seed Dispersal Model Project	• Design a model of the function of an animal in spreading seeds.
Module 25- Follow the Food Chain	Animal Food Chains	• Investigate interdependent relationships in nature through food chains. • Draw and label a simple food chain.
	Carnivores	• Distinguish between the foods animals eat. • Make observations about the characteristics of carnivores.
	Birds of Prey	• Identify unique characteristics of birds of prey. • Draw and label a food chain that includes birds of prey.
	Herbivores	• Identify animals that are herbivores. • Make observations about the characteristics of herbivores. • Compare and contrast herbivores and carnivores.

Module	Lesson Title	Objectives
Module 26- Fitting into the Food Chain	Omnivores	• Identify animals that are omnivores. • Make observations about the characteristics of omnivores. • Classify animals based on the food they eat.
	Food for Humans	• Trace the process of where food comes from. • Construct a personal food chain.
Module 27- Life Cycles	Tadpoles to Frogs	• Describe each stage of a frog's life cycle. • Make observations about a frog's life cycle.
	Grasshopper Life Cycle	• Describe each stage of a grasshopper's life cycle. • Make observations about a grasshopper's life cycle.
	Caterpillar to Butterfly	• Describe each stage of a butterfly's life cycle. • Make observations about a butterfly's life cycle.
	Insect vs. Amphibian Life Cycles Project	• Make comparisons between two different life cycles. • Observe and describe the life cycles of an amphibian and an insect.
Module 28- Patterns and Cycles of Plants	Trees and Leaves	• Identify characteristics and parts of trees. • Collect and display leaves of local trees. • Compare and contrast trees and leaves.
	Plant Patterns	• Explain how trees and plants adapt to changes in the environment. • Compare and contrast deciduous and coniferous trees.
	Life Cycle of a Bean	• Describe each stage of a bean's life cycle. • Make observations about a bean's life cycle.

Module	Lesson Title	Objectives
Module 29- Growing Plants	Seeds All Around	• Explain how a seed grows into a plant.
	How Plants Grow	• Identify and describe the basic needs of all plants. • Explain how the sun is necessary for life on Earth.
	Types of Plants	• Identify different types of plants. • Differentiate between basic needs and individual needs.
Module 30- Plant Needs	Soil Experiment	• Plan an investigation on the best soil for plants.
	Water Experiment	• Plan an investigation on how much water plants need.
	Sun Experiment	• Plan an investigation on how much sunlight plants need.
	Planned Plant Experiment Project	• Investigate how sunlight, water, or soil effects plant growth.
Module 31- Energy	Light and Heat	• Investigate the effects on objects by increasing or decreasing amounts of light, heat.
	Changes in Energy	• Explain how different forms of energy cause changes. • Observe changes caused by energy.
	Uses of Energy	• Identify different types of energy. • Describe personal uses of energy.

Module	Lesson Title	Objectives
Module 32- Resources Around Us	Natural Resources	• Identify natural resources used to make products. • Describe jobs related to natural resources.
	Nonrenewable Resources	• Identify different types of nonrenewable resources and what they are used for. • Define nonrenewable.
	Renewable Resources	• Identify different types of renewable resources and what they are used for. • Identify products and byproducts made from renewable resources.
Module 33- Resources and Technology	Human Made Resources	• Identify products made from living things. • Distinguish between natural and manmade resources.
	Technology	• Identify technologies used for different purposes. • Identify parts of a computer system. • Critique the use of technology.
	Conserving Resources	• Identify ways to conserve resources. • Demonstrate understanding of conservation practices like reusing materials or adjusting resource consumption.
	Natural Resource Product Book Project	• Illustrate and describe the different things we get from our natural resources.
Module 34- Caring for the Earth	Pollution	• Investigate the effects of pollution.
	The Four Rs	• Apply understanding of conservation practices. • Create or repurpose something from reused or recycled materials.

Module	Lesson Title	Objectives
	Taking Action	• Create a product to share with others about the importance of conservation.
Module 35- Gardening for the Earth	Plant a Pollinator Garden	• Design and plant a garden that encourages pollinators to visit.
	Composting	• Make compost.
	Caring for your Garden	• Apply understanding of the needs of plants to care for a garden.
Module 36- Review the Year	Review Life Science	• Review and apply skills and knowledge about life science concepts.
	Review Earth Science	• Review and apply skills and knowledge about earth science concepts.
	Review Physical Science	• Review and apply skills and knowledge about physical science concepts.
	STEM Review Project	• Review the engineering design process.