

Course Description:

Third grade science introduces students to experimentation as they journey through the earth and its many miracles. They will begin by learning about the earth, the sun and the moon. By participating in simple experiments students will explore the water cycle, gravity, the weather and its patterns, various types of terrain, and the role of plants in the production of oxygen and their importance to human survival. Learners will expand their knowledge through video, pictures, short readings, projects, and hands on experiments. Learners will understand that experiments require the use of instruments, observation, recording, and drawing evidence based conclusions. Grade 3 science provides students with the opportunity to expand their minds and see for themselves the way that science is a part of their everyday lives.

Materials needed: Colored pencils or crayons, Inflatable Globe, Lamp from your home or school, Large pan, Plastic plate, Gong – or some object to sound on to denote the passing of an hour, pan (or any flat, open dish), Small jar without a lid, small jar with a lid, tablespoon, tape, ice cubes, blue construction paper, three hole punch, yarn, bag of cotton balls, glue, balloons, clay, and scissors.

Module	Lesson Title	Objectives
1	Earth and Sun Concepts	1. Learn about the earth's revolution around the sun.
	Phases of the Moon	1. Identify the phases of the moon. 2. Observe the effects of the moon's phases on nature. 3. Record observations.
	Devices to Tell Time	1. Identify various means of telling time. 2. Illustrate and describe clock devices.
2	The Role of Gravity	1. Explore the concept of gravity. 2. Write creatively in your Science Lesson Book.
	Plant Respiration and Relationships	1. Describe plant forms 2. Identify plant respiration 3. Discuss various ways plants and humans help each other
	Water Cycle: Evaporation	1. Identify steps in the water cycle. 2. Recognize how water evaporates. 3. Observe and record the rate at which water evaporates.

Module	Lesson Title	Objectives
3	Water Cycle: Condensation	<ol style="list-style-type: none"> 1. Identify the steps in the water cycle. 2. Recognize the process of condensation. 3. Observe and record findings of condensation.
	Water Cycle: Precipitation	<ol style="list-style-type: none"> 1. Identify the steps of the water cycle. 2. Recognize the process of precipitation. 3. Diagram the complete water cycle.
	Basics of Weather and Weather Patterns	<ol style="list-style-type: none"> 1. Observe daily weather and weather patterns. 2. Construct a wind vane. 3. Chart daily weather observations.
4	Cloud Formation II	<ol style="list-style-type: none"> 1. Identify cloud formations.
	Lightning and Electricity	<ol style="list-style-type: none"> 1. Explore the phenomenon of lightning. 2. Simulate aspects of the static electricity in lightning.
	Weather Extremes	<ol style="list-style-type: none"> 1. Identify extreme weather conditions. 2. Illustrate hurricanes, tornadoes and blizzards.
5	The Earth and Sun Relationship	<ol style="list-style-type: none"> 1. Trace the earth's revolution around the sun. 2. Recognize how the earth's revolution around the sun applies to seasonal changes. 3. Evaluate an experiment that illustrates the process of the earth's revolution.
	Global Climate Zones	<ol style="list-style-type: none"> 1. Identify the five global climate zones. 2. Illustrate the different climate zones.
	Characteristics of Terrain on Earth	<ol style="list-style-type: none"> 1. Identify various types of terrain. 2. Construct a clay diorama of local terrain. 3. Label drawings of various types of terrain.
6	Characteristics of Mountainous Regions	<ol style="list-style-type: none"> 1. Further discriminate mountainous regions. 2. Locate the highest mountain ranges in various regions. 3. Identify facts about local mountains.

3rd Grade Science Semester A Syllabus

Module	Lesson Title	Objectives
	Trees and Human Needs	<ol style="list-style-type: none">1. Relate trees and their relationship and usefulness to humankind.2. List objects that come from trees.3. Create a collage of items that originated from trees.
	Types of Trees	<ol style="list-style-type: none">1. Identify various types of trees.2. Categorize different species of trees and leaves.

Course Description:

Semester B of third grade science begins with the students writing a poem about the seasonal cycles. The learners continue with root formation, the interdependence of plants and humans, biomes of land and sea, extreme weather, rocks, vertebrates and invertebrates, as well as extinction. All of these lessons are taught using video, projects, and experimentation. Semester B asks learners to look a bit deeper into things they encounter such as the ocean and weather.

Materials needed: Colored pencils or crayons, Avocado or sweet potato, 3 - 5 Nails or toothpicks, Clear glass or plastic cup, two glass tumblers, celery stalk, food coloring (red and green), microscope, magnifying glass or loupe, flower, leaf, globe or world map, scissors, and glue.

Module	Lesson Title	Objectives
1	Cycle of Seasons	1. Identify the seasonal cycles around the world.
	Investigation into Root Formation	1. Closely observe root formation in plants. 2. Experiment with root growth. 3. Record and explain results of the experiment.
	Plants and Water Absorption	1. Observe how a plant absorbs water from the soil. 2. Experiment with water absorption. 3. Record and explain the results of the experiment.
2	Basics of Photosynthesis	1. Define the word photosynthesis. 2. Examine a leaf and a flower. 3. Illustrate a leaf and its structure.
	Interdependence of Man and Nature	1. Explore the ways man, plants and animals interact. 2. Explain how man, nature and animals must help one another. 3. Predict what will happen if man, nature and animals do not help one another.
	The Water Cycle	1. Hear a simple explanation of how the cycle works, and then design an experiment to watch the water cycle in action! 2. Journal observations over time.
3	Classifying Ecosystems: Biomes	1. Identify the three biomes: desert, rainforest, tundra. 2. Indicate the different animals that live in the three biomes. 3. Examine the adaptations the animals made to their environments.

3rd Grade Science Semester B Syllabus

Module	Lesson Title	Objectives
	Classifying Ecosystems: Biomes II	<ol style="list-style-type: none"> 1. Explore characteristics of other biomes. 2. Identify the biome in which you are presently living. 3. Illustrate characteristics of your particular biome.
	Characteristics of Earthquakes and Volcanoes	<ol style="list-style-type: none"> 1. Examine characteristics and causes of earthquakes. 2. Examine characteristics and causes of volcanoes. 3. Illustrate earthquakes and volcanoes in the Science Main Lesson Book.
4	Natural Resources in Your Community	<ol style="list-style-type: none"> 1. Discover the natural resources in your area. 2. List in your Science Main Lesson Book the resources in your area.
	Characteristics of Caves and Cave Animals	<ol style="list-style-type: none"> 1. Explore caves. 2. Define stalactites and stalagmites you might discover in caves. 3. Identify the animals that live in caves.
	Characteristics of Rocks	<ol style="list-style-type: none"> 1. Examine rocks in your area. 2. Collect rocks, observe them under magnification and perform simple research to identify their possible type.
5	Cycle of Rocks	<ol style="list-style-type: none"> 1. Discover the elements that have an effect on rocks over time. 2. Describe the changes that can occur on solid rock.
	Biomes: Ocean Water	<ol style="list-style-type: none"> 1. Identify characteristics of the salt water biome of the ocean. 2. Examine and report on the salt water biome of the ocean.
	Biomes: Freshwater	<ol style="list-style-type: none"> 1. Identify characteristics of the freshwater biomes. 2. Observe plant and animal life that lives within some of the freshwater environments.
6	Characteristics of Vertebrates and Invertebrates	<ol style="list-style-type: none"> 1. Distinguish vertebrates from invertebrates. 2. Illustrate both types of animals.
	Concepts of Plants: Stems	<ol style="list-style-type: none"> 1. Distinguish between plants with stems and those without. 2. Classify plants in nature according to these two

3rd Grade Science Semester B Syllabus

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		groups. 3. Research in depth one plant of each type. 4. Report on these plants in the Science Main Lesson Book.
	Plants and Animals: Extinction	1. Explore certain plants and animals that have become extinct. 2. Describe ways plants and animals become extinct and identify examples. 3. Research in depth one extinct plant or animal.
