



FLOYD COUNTY SCHOOLS' CURRICULUM RESOURCES
"Building a Better Future for Every Child - Every Day!"
Summer 2012

Subject Content: SCIENCE

Grade 2nd



Indicates the Curriculum Map

Weeks 1 – 3	Weeks 4 – 6
<p align="center">Unit/Topic BIOLOGICAL SCIENCE Basic Needs of Organisms Living, Nonliving, and Once Living</p>	<p align="center">Unit/Topic BIOLOGICAL SCIENCE Basic Structures and Related Functions of plants and animals Plant and Animal Life Cycles</p>
<p align="center">CORE CONTENT 4.1</p> <p>SC-EP-3.4.1 Students will explain the basic needs of organisms.</p> <p>Organisms have basic needs. For example, animals need air, water and food; plants need air, water, nutrients and light. Organisms can survive only in environments in which their needs can be met.</p> <p align="center">DOK 2</p> <p>SC-EP-3.4.2 Students will understand that things in the environment are classified as living, nonliving, and once living. Living things differ from nonliving things. Organisms are classified into groups by using various characteristics (e.g., body coverings, body structures).</p>	<p align="center">CORE CONTENT 4.1</p> <p>SC-EP-3.4.3 Students will describe the basic structures and related functions of plant and animals that contribute to growth, reproduction, and survival.</p> <p>Each plant or animal has observable structures that serve different functions in growth, survival, and reproduction. For example, humans have distinct body structures for walking, holding, seeing and talking. These observable structures should be explored to sort, classify, compare, and describe organisms.</p> <p align="center">DOK 2</p> <p>SC-EP-3.4.4 Students will describe a variety of plant and animal life cycles to understand patterns of the growth, development, reproduction and death of an organism.</p> <p>Plants and animals have life cycles that include the beginning of life, growth and development, reproduction and death. The details of a life cycle are different for different organisms. Observations of different life cycles should be made in order to identify patterns and recognize similarities and differences.</p> <p align="center">DOK 2</p>

CURRICULUM			CURRICULUM		
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Identify Sub-Topics</p> <p>Living Things have needs and change as they grow.</p> <ul style="list-style-type: none"> Identify living and nonliving things. 	<p>Identify Sub-Topics</p> <p>Identify and Describe the Basic Needs of Animals</p> <ul style="list-style-type: none"> Animals' needs depend on their size and type. Observe the needs of animals. 	<p>Identify Sub-Topics</p> <p>*Continuation of Week 2 as needed...</p> <p>Identify and Describe Plant Needs</p> <ul style="list-style-type: none"> Plant needs depend on their size and type. There are factors that influence the growth of living things. 	<p>Identify Sub-Topics</p> <p>Basics Structures and Functions of Plants and Animals</p>	<p>Identify Sub-Topics</p> <p>Describe a variety of Plant and Animal Life Cycles (Growth, Development, Reproduction, & Death of an Organism)</p>	<p>Identify Sub-Topics</p> <p>Describe a variety of Plant and Animal Life Cycles (Growth, Development, Reproduction, & Death of an Organism)</p> <p>Observe Various Life Cycles to Identify Patterns and Recognize Similarities & Differences</p>
<p>I CAN STATEMENTS:</p> <p>I can explain the basic needs of organisms.</p> <p>I can describe how organisms can survive in environments in which their needs can be met.</p> <p>I can classify how things in the environment can be living, nonliving, and once living.</p>	<p>I CAN STATEMENTS:</p> <p>I can explain the basic needs of organisms.</p> <p>I can describe how organisms can survive in environments in which their needs can be met.</p> <p>I can classify how things in the environment can be living, nonliving, and once living.</p> <p>I can characterize organisms into groups (e.g., body coverings, body structures).</p>	<p>I CAN STATEMENTS:</p> <p>I can explain the basic needs of organisms.</p> <p>I can describe how organisms can survive in environments in which their needs can be met.</p> <p>I can classify how things in the environment can be living, nonliving, and once living.</p> <p>I can characterize organisms into groups (e.g., body coverings, body structures).</p>	<p>I CAN STATEMENTS:</p> <p>I can name and describe different types of animals.</p> <p>I can investigate adaptations that enable animals to grow, reproduce, and survive.</p> <p>I can investigate adaptations that enable plants to grow, reproduce, and survive.</p> <p>I can explain the parts of a flower.</p>	<p>I CAN STATEMENTS:</p> <p>→</p>	<p>I CAN STATEMENTS:</p> <p>→</p>

			<p>I can identify different parts of an animal that help it adapt to its environment.</p> <p>I can compare a variety of plant and animal life cycles.</p>		
<p>Critical Vocabulary</p> <p>Living Nonliving Once living Environment Basic Needs Organisms Survival Describe Classify</p>	<p>Critical Vocabulary</p> <p>Living Nonliving Once Living Environment Basic Needs Organisms Survival Describe Classify</p> <p>Invertebrates Vertebrates Warm-blooded Cold-blooded Body Coverings Body Structures</p>	<p>Critical Vocabulary</p> <p>Living Nonliving Once Living Environment Basic Needs Organisms Survival Describe Classify</p> <p>Invertebrates Vertebrates Warm-blooded Cold-blooded Body Coverings Body Structures</p>	<p>Critical Vocabulary</p> <p>Life Cycle Reproduce Oxygen Nutrients Shelter Death Similarities Differences Observe Describe Classify</p>	<p>Critical Vocabulary</p> <p>-></p>	<p>Critical Vocabulary</p> <p>-></p>
<p>Suggested Strategies/Activities</p> <p>Venn Diagram Children will create a Venn</p>	<p>Suggested Strategies/Activities</p> <p>Animal Classification Classification Sorting Project:</p>	<p>Suggested Strategies/Activities</p> <p>Sweet Potato Journal (suggested one month)</p>	<p>Suggested Strategies/Activities</p> <p>Sweet Potato Journal Cont.</p>	<p>Suggested Strategies/Activities</p> <p>Sweet Potato Journal Cont.</p>	<p>Suggested Strategies/Activities</p> <p>Sweet Potato Journal Cont.</p>

Poster board Magazines Scissors Glue Markers www.discoveryeducation.com www.lessonpathways.com	Animal Sorting Cards Poster board Magazines Scissors Glue www.discoveryeducation.com www.lessonpathways.com	Sweet Potato Jar Water Science Journal www.lessonpathways.com www.discoveryeducation.com	www.discoveryeducation.com science journal www.lessonpathways.com	www.lessonpathways.com science journal	www.lessonpathways.com science journal
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Weeks 7-9	Weeks 10-12
Unit/Topic UNIFYING CONCEPTS ENERGY TRANSFORMATIONS Relationships of Plant and Animals in an Ecosystem Evidence of the Sun Providing Light and Heat to the Earth	Unit/Topic UNIFYING CONCEPTS - INTERDEPENDENCE BIOLOGICAL SCIENCE – STRUCTURE AND TRANSFORMATION OF MATTER Cause and Effect Relationships Existing Between Organisms and Their Environments Fossils as Evidence of Organisms that Lived Long Ago
CORE CONTENT 4.1 SC-EP-4.6.1 Students will describe basic relationships of plants and animals in an ecosystem (food chains). Plants make their own food. All animals depend on plants. Some animals eat plants for food. Other animals eat animals that eat the plants. Basic relationships and connections between organisms in food chains can be used to discover patterns within ecosystems. DOK 2 SC-EP-4.6.2 Students will describe evidence of the sun providing light and heat to the Earth. Simple observations and investigations begin to reveal that the Sun provides the light and heat necessary to maintain the temperature of Earth. Based on those experiences, the conclusion can be drawn that the Sun’s light and heat are necessary to sustain life on Earth. DOK 2	CORE CONTENT 4.1 SC-EP-4.7.1 Students will describe the cause and effect relationships existing between organisms and their environments. The world has many different environments. Organisms require an environment in which their needs can be met. When the environment changes some plants and animals survive and reproduce and others die or move to new locations. DOK 2 SC-EP-3.5.1 Students will describe fossils as evidence of organisms that lived long ago, some of which may be similar to others that are alive today. Fossils found in Earth materials provide evidence about organisms that lived long ago and the nature of the environment at that time. Representations of fossils provide the basis for describing and drawing conclusions about the organisms and basic environments represented by them. DOK 3

Strategies/Activities	Strategies/Activities	Strategies/Activities	Strategies/Activities	Strategies/Activities	Strategies/Activities
Balanced Assessment: Formative	Balanced Assessment: Formative	Balanced Assessment: Formative	Balanced Assessment: Formative	Balanced Assessment: Formative	Balanced Assessment: Formative
Summative	Summative	Summative	Summative	Summative	Summative
Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)	Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)	Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)	Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)	Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)	Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)
Resources Needed	Resources Needed	Resources Needed	Resources Needed	Resources Needed	Resources Needed

Weeks 13-15	Weeks 16-18
Unit/Topic EARTH/SPACE SCIENCE THE EARTH AND THE UNIVERSE Earth Materials	Unit/Topic EARTH/SPACE SCIENCE THE EARTH AND THE UNIVERSE Weather Patterns and Weather Data to Make Predictions Sun and Moon: Location and Properties

CORE CONTENT 4.1			CORE CONTENT 4.1		
<p>SC-EP-2.3.1 Students will describe earth materials (solid rocks, soils, water and gases of the atmosphere) using their properties.</p> <p>Earth materials include solid rocks and soils, water and the gases of the atmosphere. Minerals that make up rocks have properties of color, luster and hardness. Soils have properties of color, texture, the capacity to retain water and the ability to support plant growth. Water on Earth and in the atmosphere can be a solid, liquid or gas.</p> <p style="text-align: center;">DOK 2</p>			<p>SC-EP-2.3.2 Students will describe patterns in weather and weather data in order to make simple predictions based on those patterns discovered.</p> <p>Weather changes from day to day and over seasons. Weather can be described using observations and measurable quantities such as temperature, wind direction, wind speed and precipitation. Simple predictions can be made by analyzing collected data for patterns.</p> <p style="text-align: center;">DOK 2</p> <p>SC-EP-2.3.3 Students will describe the properties, locations and real or apparent movements of objects in the sky (Sun, moon).</p> <p>Objects in the sky have properties, locations and real or apparent movements that can be observed and described. Observational data, patterns, and models should be used to describe real or apparent movements.</p> <p style="text-align: center;">DOK 2</p>		
CURRICULUM			CURRICULUM		
Week 13	Week 14	Week 15	Week 16	Week 17	Week 18
Identify Sub-Topics	Identify Sub-Topics	Identify Sub-Topics	Identify Sub-Topics	Identify Sub-Topics	Identify Sub-Topics
I CAN STATEMENTS: I can describe properties of rocks, soils, water, and gases.	I CAN STATEMENTS: → same	I CAN STATEMENTS: → same	I CAN STATEMENTS: I can describe weather patterns and make predictions based on those patterns.	I CAN STATEMENTS: → same	I CAN STATEMENTS: → same

I can examine properties of minerals that make up rocks.			I can measure and record the weather. I can illustrate the differences in the four seasons. I can describe movements of the sun and moon.		
Critical Vocabulary	Critical Vocabulary	Critical Vocabulary	Critical Vocabulary	Critical Vocabulary	Critical Vocabulary
Strategies/Activities	Strategies/Activities	Strategies/Activities	Strategies/Activities	Strategies/Activities	Strategies/Activities
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Resources Needed	Resources Needed	Resources Needed	Resources Needed	Resources Needed	Resources Needed

Weeks 19-21	Weeks 22-24
Unit/Topic Classify Material Objects by their Properties Movement and Patterns of the Sun in the Sky (Shadows, Position Relative to the Horizon)	Unit/Topic Movement and Phases of the Moon Travel of Light
CORE CONTENT 4.1	CORE CONTENT 4.1
<p>SC-EP-1.1.1 Students will classify material objects by their properties providing evidence to support their classifications.</p> <p>Objects are made of one or more materials such as paper, wood, and metal. Objects can be described by the properties of the materials from which they are made. Those properties and measurements of the objects can be used to separate or classify objects or materials.</p> <p style="text-align: center;">DOK 3</p> <p>SC-EP-2.3.4 Students will describe the movement of the sun in the sky using evidence of interactions of the sun with the earth (e.g., shadows, position of sun relative to horizon) to identify patterns of movement.</p> <p>Changes in movement of objects in the sky have patterns that can be observed and described. The Sun appears to move across the sky in the same way every day, but the Sun's apparent path changes slowly over seasons. Recognizing relationships between movements of objects and resulting phenomena, such as shadows, provides information that can be used to make predictions and draw conclusions about those movements.</p>	<p>SC-EP-2.3.5 Students will understand that the moon moves across the sky on a daily basis much like the Sun. The observable shape of the moon can be described as it changes from day to day in a cycle that lasts about a month.</p> <p>SC-EP-4.6.4 Students will describe light as traveling in a straight line until it strikes an object. Light can be observed and described as it travels in a straight line until it strikes an object.</p> <p style="text-align: center;">DOK 2</p>

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Resources Needed	Resources Needed	Resources Needed	Resources Needed	Resources Needed	Resources Needed

Weeks 25-27	Weeks 28-30
Unit/Topic PHYSICAL SCIENCE MOTION AND FORCES Position and Motion of Objects Changes and Position and Motion	Unit/Topic PHYSICAL SCIENCE MOTION AND FORCES Motion of an Object (Change in Position)

<p style="text-align: center;">Summative</p> <p>Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)</p>	<p style="text-align: center;">Summative</p> <p>Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)</p>	<p style="text-align: center;">Summative</p> <p>Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)</p>	<p style="text-align: center;">Summative</p> <p>Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)</p>	<p style="text-align: center;">Summative</p> <p>Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)</p>	<p style="text-align: center;">Summative</p> <p>Common (PLC Teams will design the common assessments, i.e., grade level, and/or depts..)</p>
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