

Second Grade Science Curriculum

Grade Level Goal

In second grade, the students will continue to develop their interest in the world around them. They will explore plants, animals, the earth and space, weather, light, and energy sources. Their scientific curiosity will be fostered through reading, observation, active participation and problem solving.

Unit Title	Physical Properties
Big Ideas	<ul style="list-style-type: none"> All objects and substances have physical properties that can be measured.
Essential Questions	<ul style="list-style-type: none"> What are physical properties? What properties do common objects have?
Skills/Concepts	<ul style="list-style-type: none"> ✓ TLW predict the attributes/properties of a given set of objects. ✓ TLW experiment with a given set of objects to determine attributes/properties of common objects and substances. ✓ TLW sort a collection of objects according to teacher-selected attributes. ✓ Using a Venn Diagram, TLW show similarities and differences of two given objects based on their attributes.
GLCE	P.PM.02.12; P.PM.02.12; P.PM.02.12;
Catholic Social Teachings	<ul style="list-style-type: none"> Rights and Responsibilities (Resources in our physical world were created by God to use in the betterment of mankind) We are Called to Stewardship (Creation)

Unit Title	Mixtures
Big Ideas	<ul style="list-style-type: none"> Substances may be classified as single substances or mixtures.
Essential Questions	<ul style="list-style-type: none"> How are solutions and suspensions alike and different? What is a mixture? What is a solution? What is a suspension?
Skills/Concepts	<ul style="list-style-type: none"> ✓ TLW collaboratively brainstorm and classify examples of single substances and mixtures. ✓ TLW describe properties of mixtures and generate additional examples. ✓ Given specific mixtures, TLW identify the parts of the mixtures and their properties by separating them, and record their observations. ✓ Given specific mixtures, TLW hypothesize which techniques are appropriate to separate the mixtures, test the hypothesis, and record and evaluate the findings.
GLCE	P.PM.02.41;
Catholic Social Teachings	<ul style="list-style-type: none"> Rights and Responsibilities (Resources in our physical world were created by God to use in the betterment of mankind.) We are Called to Stewardship (Creation)

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Unit Title	Needs Life Cycle and Heredity of Plants
Big Ideas	<ul style="list-style-type: none"> • All living things have life cycles. • All things can be classified as living or nonliving. • Plants need air, water, soil, and light to grow and live. • The life stages of flowering plants are seed, plant, flower, and fruit.
Essential Questions	<ul style="list-style-type: none"> • What are the basic needs of plants? • What are the functions of the different parts of the seed? • What are the functions of the parts of plants? • What are the parts of the plant? • What are the stages in the life cycles of flowering plants? • What plant parts do we eat?
Skills/Concepts	<ul style="list-style-type: none"> ✓ TLW collaboratively identify what plants need for growth and survival. ✓ TLW compare and contrast the different parts of a plant. ✓ TLW co
GLCE	L.OL.02.14; L.OL.02.22; L.HE.02.13;
Catholic Social Teaching	<ul style="list-style-type: none"> • Rights and Responsibilities • We are Called to Live and Community • We are Called to Stewardship

Unit Title	Surface Features
Big Ideas	<ul style="list-style-type: none"> • Different landforms have different characteristics. • Different types of bodies of water have different characteristics. • The Earth has many types of bodies of water. • The Earth has many types of landforms.
Essential Questions	<ul style="list-style-type: none"> • What are the characteristics of Earth's bodies of water? • What are the characteristics of Earth's landforms?
Skills/Concepts	<ul style="list-style-type: none"> ✓ TLW identify and describe teacher-selected pictures or models of major landforms of the Earth's surface. ✓ TLW identify and describe lakes, rivers, and oceans as bodies of water and state their likeness and differences. ✓ TLW create a model showing the surface features of the Earth.
GLCE	E.SE.02.21; E.FE.02.22;
Catholic Social Teachings	<ul style="list-style-type: none"> • Rights and Responsibilities • We are Called to Stewardship

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Unit Title	Water
Big Ideas	<ul style="list-style-type: none"> • A solid keeps its own shape, while a liquid takes the shape of its container. • Water can evaporate (Water Cycle). • Water exists as a solid (ice) and as a liquid (water).
Essential Questions	<ul style="list-style-type: none"> • How does matter change state? • What are states of matter? • What are the states of water? • What is matter? • Why does a liquid take the shape of its container? • Why does a solid keep its own shape?
Skills/Concepts	<ul style="list-style-type: none"> ✓ TLW collaboratively investigate and identify the properties of water as a solid. ✓ TLW be able to identify other solids in the classroom. ✓ TLW collaboratively investigate and identify the properties of water as a liquid. ✓ TLW be able to identify other liquids in the classroom. ✓ TLW observe the change from a liquid to a solid. ✓ (Extension) TLW collaboratively investigate and identify the properties of a gas. ✓ TLW be able to examine the behavior of gases through experiments with bubbles and balloons. ✓ TLW identify household uses of water. ✓ TLW describe how rain collects on the surface of the Earth and how water moves in predictable patterns. <p>TLW identify the sources of water.</p>
GLCE	E,FE.02.14; E.FE.02.13; E.FE.02.12; E.FE.02.21; E.FE.02.11; E.FE.02.22;
Catholic Social Teachings	<ul style="list-style-type: none"> • Rights and Responsibilities • We are Called to Stewardship (Creation)

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