
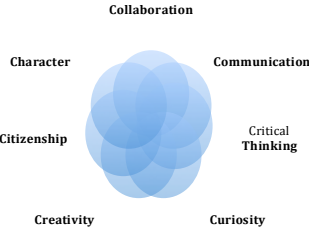


Content Area: Science	Course: Grade 2 Science	Grade Level: Second
	R14 The Seven Cs of Learning 	
Unit Titles	Length of Unit	
<ul style="list-style-type: none"> • Structure and Properties of Matter 	<ul style="list-style-type: none"> • 8-10 weeks 	
<ul style="list-style-type: none"> • Relationships in Ecosystems 	<ul style="list-style-type: none"> • 8-10 weeks 	
<ul style="list-style-type: none"> • Processes That Shape The Earth 	<ul style="list-style-type: none"> • 8-10 weeks 	



Strands	Course Level Expectations
Physical Sciences	<ul style="list-style-type: none"> • Plan and conduct an investigation to describe and classify different kinds of materials by their observable Properties. • Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. • Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. • Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.
Life Sciences	<ul style="list-style-type: none"> • Plan and conduct an investigation to determine if plants need sunlight and water to grow. • Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants. • Make observations of plants and animals to compare the diversity of life in different habitats.
Earth and Space Sciences	<ul style="list-style-type: none"> • Use information from several sources to provide evidence that Earth events can occur quickly or slowly. • Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. • Develop a model to represent the shapes and kinds of land and bodies of water in an area. • Obtain information to identify where water is found on Earth and that it can be solid or liquid.

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Unit Title	Structure and Properties of Matter	Length of Unit	8-10 weeks
Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • How are materials similar and different from one another? • How do the properties of materials relate to their use? 		
Standards*	2-PS1-1, 2-PS1-2, 2-PS1-3, 2-PS1-4, K-2-ETS1-3		
Unit Strands & Concepts	<p>DISCIPLINARY CORE IDEAS (DCI):</p> <ul style="list-style-type: none"> • Structure and Properties of Matter • Chemical Reactions <p>Cross Cutting Concepts (CCC)</p> <ul style="list-style-type: none"> • Patterns • Cause and Effect • Energy and Matter 		
Key Vocabulary	Matter, Properties, Classify, Substance, Reversible, Chemical Reaction, Data, Observations		

Unit Title	Structure and Properties of Matter	Length of Unit	-10 Weeks
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> • Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. • Matter can be described and classified by its observable properties • Different properties are suited to different purposes. • A great variety of objects can be built up from a small set of pieces. • Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. 	<ul style="list-style-type: none"> • Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. • Analyze experimental data to determine which materials have the properties (ex. strength, flexibility, texture) that are best suited for an intended purpose. • Justify using evidence how an object made of a small set of pieces can be disassembled and made into a new object. • Substantiate with evidence that some changes caused by heating or cooling can be reversed and some cannot.

Assessments:	Performance Task(s) focused on demonstrating an understanding of the different properties of matter
Teacher Resources:	NGSS Frameworks, Region 14 Science Implementation Guide, Model Based Inquiry Investigations, Foss Kits, NGSS Phenomenon Resources, Stem Teaching Tools

Unit Title	Relationships in Ecosystems	Length of Unit	8-10 weeks
Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • What do plants need to grow? • How many types of living things live in a place?" 		
Standards	2-LS2-1, 2-LS2-2, 2-LS4-1, K-2-ETS1-1, ETS1-2		
Unit Strands & Concepts	<p>DISCIPLINARY CORE IDEAS (DCI):</p> <ul style="list-style-type: none"> • Interdependent Relationships in Ecosystems • Biodiversity and Humans • Developing Possible Solutions <p>Cross Cutting Concepts (CCC)</p> <ul style="list-style-type: none"> • Cause and Effect • Structure and Function 		
Key Vocabulary	Interdependent, Ecosystem, Habitat, Pollination, Data, Observations		

Unit Title	Relationships in Ecosystems	Length of Unit	8-10 weeks
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> Plants depend on water and light to grow Plants depend on animals for pollination or to move their seeds around There are many different kinds of living things in any area, and they exist in different places on land and in water 	<ul style="list-style-type: none"> Plan and conduct an investigation to determine if plants need sunlight and water to grow Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants Compare and contrast the diversity of life in different habitats.

Assessments:	Performance Task(s) focused on demonstrating an understanding of the interdependency of relationships within a given ecosystem
Teacher Resources:	NGSS Frameworks, Region 14 Science Implementation Guide, Model Based Inquiry Investigations, Foss Kits, NGSS Phenomenon Resources, Stem Teaching Tools

Unit Title	Processes That Shape The Earth	Length of Unit	8-10 weeks
Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • Why does the Land Change Over Time? • Where and how Does Water Exist in The Natural World? 		
Standards*	2-ESS1-1, 2-ESS2-1, 2-ESS2-2, 2-ESS2-3, ETS1-1, ETS1-3		
Unit Strands & Concepts	<p>DISCIPLINARY CORE IDEAS (DCI):</p> <ul style="list-style-type: none"> • The History of Planet Earth • Earth Materials and Systems • Plate Tectonics and Large-Scale System Interactions • The Roles of Water in Earth’s Surface Processes <p>Cross Cutting Concepts (CCC)</p> <ul style="list-style-type: none"> • Stability and Change • Patterns 		
Key Vocabulary	Water body, Liquid, Gas, Evidence, Data, Observations		

Unit Title	Processes That Shape The Earth	Length of Unit	8-10 weeks
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Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> • Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. • Wind and water can change the shape of the land • One can map the shapes and kinds of land and water in any area • Water is found in the ocean, rivers, lakes, and ponds. • Water exists as solid ice and in liquid form 	<ul style="list-style-type: none"> • Synthesize information across several sources to provide evidence that Earth events can occur quickly or slowly • Compare and Contrast designs for solutions to slow or prevent wind or water from changing the shape of the land. • Construct a model to represent the shapes and kinds of land and bodies of water in an area. • Identify where water is found on Earth and that it can be solid or liquid.

Assessments:	Performance Task(s) focused on demonstrating an understanding of the effects wind and rain can have on shaping the Earth, the location and properties of water on Earth
Teacher Resources:	NGSS Frameworks, Region 14 Science Implementation Guide, Model Based Inquiry Investigations, Foss Kits, NGSS Phenomenon Resources, Stem Teaching Tools