

**GRADE 2 SCIENCE CURRICULUM  
2004 - 2005**

**Minnesota Academic Standards  
Science Curriculum Scope & Sequence**

(HNS=History & Nature of Science, ESS=Earth & Space Sciences, PS=Physical Science, LF=Life Science)

<b>Grade/ Timeline</b>	<b>Strand/ Content</b>	<b>Sub-Strand/ Content</b>	<b>Standard/ State Standard</b>	<b>Benchmarks/ Skills</b>	<b>Activity</b>	<b>Time Frame</b>	<b>Assessment</b>
<b>Grade 2</b>	HNS	Scientific World View	The student will understand that science is <b>human endeavor</b> practiced throughout the world	<p>The student will recognize that repeating a <b>scientific investigation</b> will lead to very <b>similar results</b></p> <p>The student will recognize that scientific investigations generally <b>work the same way in different places.</b></p> <p>The student will give examples of <b>scientific advances</b> throughout history.</p> <p>The student will recognize that everyone can do science and <b>invent things and ideas.</b></p>	Weather Journals Sink & Float Units Chapter 5, Lesson 2		
	HNS	Scientific Inquiry	The student will raise questions about the <b>natural world</b> , make careful observations and seek answers.	<p>The student will use appropriate <b>tools</b> to gather and organize data</p> <p>The student will <b>recognize</b> and describe patterns in data.</p>	Science Book, Chapter 8, Lesson 1 Mealworm/Plant Observation Book, Chapter 4, Lesson 3 Math Measurement Unit  Weather Journal Math		

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<b>Grade 2</b>	PS	Structure of Matter	The student will understand that <b>objects</b> can be <b>sorted</b> and classified <b>based on</b> their <b>properties</b>	The student will sort and classify objects in <b>terms of color, size, shape, weight, texture, flexibility and attraction to magnets.</b>	Bug Book Attribute Blocks in Math Unit Chapter 1, Lessons 1-5, Science Book		
				The student will classify a substance as a <b>solid, liquid or gas.</b>	Chapter 4, Lesson 1, Science Book		
				The student will know that <b>solids</b> have a <b>definite shape</b> and that <b>liquids</b> take the <b>shape of their container</b>	Chapter 4, Lesson 2, Science Book		
				The student will observe that <b>water</b> can be a <b>solid or liquid</b> and can <b>change from one state to the other.</b>	Chapter 4, Lesson 2, Science Book		
	PS	Motion	The student will know that <b>objects move in various ways</b>	The student will observe and describe how <b>objects move</b> in a variety of ways, including, but not limited to, <b>a straight line, a curve, a circle, back and forth and at different speeds.</b>	That's Incredible! Theme 5 and unit from Anne Kellin		
				The student will observe that <b>push and pull forces</b> can make objects move.			

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<b>Grade 2</b>	ESS	Earth Structure and Processes	The student will recognize <b>basic Earth materials.</b>	The student will observe and describe <b>rocks, soils, water and air.</b>	Chapter 7, Lesson 1-3, Science Book-Chap. 8(Weather) Lesson 1-4 (weak on rocks) Nature Spy, reading Theme II		
	LS	Diversity of Organisms	The student will recognize that plants and animals have <b>life cycles.</b>	The student will describe <b>life cycles of plants and animals.</b>	Chapter 2, Lessons 1-4 Bloomer's field trip Butterflies, Ants & Insects		
	LS	Interdependence of Life	The student will understand that organisms live in <b>different environments.</b>	The student will observe and describe some <b>features</b> of plants and animals that allow them to live in <b>specific environments.</b>	Bug Book activity (only with plants-Bloomer's) Reading-Octopus, Shells, Animal Tracks		
	LS	Biological Populations Change Over Time	The student will understand that <b>biological populations change over time.</b>	The student will know that some kinds of organisms that once lived on Earth are now <b>extinct</b> , including, but not limited to; <b>dinosaurs, trilobites, mammoths, giant tree ferns and horsetail trees.</b>	Science Book, Chapter 3, Lessons 1-4 Introduction Chapter Reading - pgs. 148-149		
	LS	Flow of Matter and Energy	The student will investigate <b>feeding relationships</b> among organisms.	The student will observe and describe <b>predator and prey</b> relationships. The student will <b>compare</b> and <b>contrast plant eaters and meat eaters.</b>	Dinosaur Unit in Science Book Reading-Patrick's Dinosaur		
	LS	Human Organism	The student will recognize that people have <b>basic needs.</b>	Student will know that <b>people need</b> water, food, air, waste removal and a particular range of temperature in their environment, just like other animals.	Bloomer's field trip Earth Week Pets, reading Theme I Friends, reading Theme III		