

**GRADE FIVE SCIENCE CURRICULUM  
2004-2005**

(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 5</b>	HNS	Scientific World View	The student will understand that <b>communication</b> is essential to science.	The student will know that <b>current scientific knowledge</b> and understanding guide scientific investigation	Not covered in text, must supplement. Ideas: "Time for Kids" Newspaper "National Geographic for Kids"		Teacher observation
				The student will recognize that clear communication of methods, findings and critical review is an essential part of doing science.	On-going, part of activities and experiments		Teacher observation
	HNS	Scientific Inquiry	The student will understand the process of scientific investigations.	The student will perform a controlled experiment using a specific step-by-step procedure and present conclusions supported by the evidence.	Activities with each chapter and lesson, would need additional activities to do.		Teacher observation
				The student will observe that when a science investigation or experiment is repeated, a similar result is expected.	Activities with each chapter and lesson, would need additional activities to do.		Teacher observation
HNS	Scientific Enterprise	The student will recognize that science & technology involve <b>different kinds of work</b> and engages men & women of all backgrounds.	The student will describe <b>different kinds of work</b> done in science and technology.  The student will identify men & women of various backgrounds and ages who have been involved in science and technology, both past & present.	Work/careers not covered in text. Must supplement on your own.			

**GRADE FIVE SCIENCE CURRICULUM  
2004-2005**

(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 5</b>	PS	Motion	The student will understand	The student will investigate the use of a <b>lever, inclined plane</b> and <b>wheel and axle</b> to move objects.	Chapter 7, All Lessons		Activities & Chapter Test
				The student will demonstrate that the greater the <b>force</b> applied the greater the change in motion.			Activities & Chapter Test
				The student will recognize the <b>natural processes</b> that cause rocks to break down into smaller pieces & eventually into soil.	Chapter 10-Weathering, Lesson 1-2		Activities & Chapter Test
				The student will investigate the formation, composition and properties of <b>soil</b> .	Chapter 10, Lesson 3		No assessment.
				The student will describe how <b>waves, wind, water &amp; ice</b> shape & reshape the Earth's surface.	Chapter 10, Lesson 4		
				The student will describe the impact of <b>floods, tornadoes, earthquakes &amp; volcanoes</b> on the Earth.	Chapter 9, Lesson 3 Reading Unit - No. 4 Chapter 9, All; Chapter 10, Lesson 1		
				The student will explore the interaction of the <b>lithosphere, atmosphere, biosphere, hydrosphere and space</b> .	Not covered specifically in text - very general mention		

**GRADE FIVE SCIENCE CURRICULUM  
2004-2005**

(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 5</b>	LS	Biological Populations Change Over Time	The student will know that biological <b>populations</b> change over time	The student will recognize that individuals of the same <b>species differ</b> in their characteristics and that sometimes the differences give individuals an advantage in surviving and reproducing.	Chapter 3-Lesson 5 - very general Survival - very general		Activities & Chapter Test
				The student will recognize that <b>extinction</b> of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival.	Chapter 3-Lesson 5 - very general		Activities & Chapter Test
				The student will compare the structure of <b>fossils</b> to one another and to living organisms.	Not covered in text; come in already knowing.		Activities & Chapter Test
	LS	Flow of Matter and Energy	The student will know that <b>matter and energy flow</b> into, out, and within a biological system.	The student will recognize that organisms <b>need energy</b> to stay alive and grow, and that this energy originates from the <b>sun</b> .	Chapter 3; Chapter 1-All Lessons		Activities & Chapter Test
			The student will use <b>food webs</b> to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota.	Chapter 4-Lesson 2, Food webs-not covered...not to supplement		Activities & Chapter Test	
			The student will recognize that organisms are growing, dying and decaying, and that their <b>matter is recycled</b> .	Not covered in text. Supplement: MN Lakes Assoc.		Activities & Chapter Test	