

# *DISTRICT*



Educational Excellence for Everyone

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***Science***  
***Instructional Sequence***  
**Harcourt Science**  
**2001-2002**

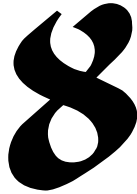
***Grade 2***



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# ***DISTRICT***



## **Educational Excellence for Everyone**

**DR. BETTY A. ROSA**  
Community Superintendent

To All District 8 Science Instructors,

District 8 has created the *Scope and Sequence Charts, Calendars* and the *Science Concept Maps* in order to provide you greater flexibility in developing your classroom programs.

We are aware that materials vary from school to school. The curriculum map allows you to develop your program using available materials, while at the same time addressing the content that must be covered on each grade level. When more than one material is indicated per topic, the teacher may choose any one of them to teach the topic i.e. Foss or Insight Kits.

As this fall marks the first year of transition for science instructional materials (grades K - 8), not all schools have received sufficient numbers of books and kits to support all teaching staff at grade level. Therefore, it is necessary to schedule the distribution of these materials with your fellow teachers to best accommodate your school. Wherever necessary, the implementation of the district's suggested curriculum must be supported. It is expected that all materials will be rotated however necessary to support effective instruction in all content areas regardless of the curriculum materials in use.

Implementation of grade level assessments are of extreme importance this year. As novel forms of assessment accompany newly adopted curricula, we must follow-up on the success of our endeavors. Therefore, the District will issue new assessment materials for grades 2-8 according to the *Scope and Sequence Calendar*. These assessment materials will emulate the hands-on inquiry based model for science instruction as mandated by the State of New York. Along with your teacher based assessments, it is the District's intent to use these tools to assist in identifying students who might be at risk of falling below State Standards, as well as to measure the progress of our newly adopted curriculum. **Have a wonderful year!**

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## Appendix

Science Calendar Grade 2

Concept Map Grade 2

# Grade 2

## Harcourt Science Pacing

### 2001 - 2002

Unit	Chapter	Lesson	Suggested Number of Days
<b>A</b> Living Things Grow and Change	<b>1</b> Plants Grow and Change	<b>1</b> What Are Living and Nonliving Things?	<b>2</b>
		<b>2</b> How Do Plants Grow and Change?	<b>3</b>
		<b>3</b> How Are Plants Alike and Different?	<b>2</b>
		<b>Review &amp; Assessment</b>	<b>2</b>
	<b>2</b> Animal Grow and Change	<b>1</b> How Are Animals Alike and Different?	<b>4</b>
		<b>2</b> What Are Some Animal Life Cycles?	<b>4</b>
		<b>Review &amp; Assessment</b>	<b>2</b>
	<b>3</b> People Grow and Change	<b>1</b> How Will I Grow?	<b>3</b>
		<b>2</b> What Do My Bones and Muscles Do?	<b>3</b>
		<b>3</b> How Do My Heart and Lungs Work?	<b>3</b>
		<b>4</b> How Do I Digest Food?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>3</b>

**Dead Line for Mandatory District Unit Assessment:  
"TO BE ANNOUNCED"**

# Grade 2

## Harcourt Science Pacing

### 2001-2002

Unit	Chapter	Lesson	Suggested Number of Days
<b>B</b> Homes For Living Things	<b>1</b> Habitats for Plants and Animals	<b>1</b> What Is a Habitat?	<b>2</b>
		<b>2</b> What Are Different Land Habitats?	<b>3</b>
		<b>3</b> What Are Different Water Habitats?	<b>3</b>
		<b>4</b> What Are Some Animal Adaptations?	<b>4</b>
		<b>5</b> How Do Plants and Animals Help Each Other?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>3</b>
	<b>2</b> Changes in Habitats	<b>1</b> How Does Weather Change Habitats?	<b>3</b>
		<b>2</b> How Does Pollution Change Environments?	<b>3</b>
		<b>3</b> How Do People Help the Environment?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>4</b>

**Dead Line for Mandatory District Unit Assessment:  
"TO BE ANNOUNCED"**

# Grade 2

## Harcourt Science Pacing

### 2001-2002

Unit	Chapter	Lesson	Suggested Number of Days
<b>C</b> Exploring Earth's Surface	<b>1</b> Earth's Resources	<b>1</b> How Do People Use Rocks and Soil?	<b>3</b>
		<b>2</b> How Do People Use Plants?	<b>3</b>
		<b>3</b> How Do People Use Water?	<b>2</b>
		<b>Review &amp; Assessment</b>	<b>3</b>
	<b>2</b> Earth Long Ago	<b>1</b> What Is a Fossil?	<b>3</b>
		<b>2</b> What Have Scientists Learned from Fossils?	<b>3</b>
		<b>3</b> What Have Scientists Learned About Dinosaurs?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>4</b>

**Dead Line for Mandatory District Unit Assessment:  
"TO BE ANNOUNCED"**

# Grade 2

## Harcourt Science Pacing

### 2001-2002

Unit	Chapter	Lesson	Suggested Number of Days
<b>D</b> Space and Weather	<b>1</b> The Solar System	<b>1</b> What Are Stars and Planets?	<b>3</b>
		<b>2</b> What Causes Day and Night?	<b>3</b>
		<b>3</b> What Causes the Seasons?	<b>3</b>
		<b>4</b> How Does the Moon Move and Change?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>3</b>
	<b>2</b> Earth's Weather	<b>1</b> How Does Weather Change?	<b>3</b>
		<b>2</b> What Is the Water Cycle?	<b>2</b>
		<b>3</b> How Do We Measure Weather Conditions?	<b>3</b>
		<b>4</b> How Can We Prepare for Weather?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>4</b>

**Dead Line for Mandatory District Unit Assessment:  
"TO BE ANNOUNCED"**

# Grade 2

## Harcourt Science Pacing 2001-2002

Unit	Chapter	Lesson	Suggested Number of Days
<b>E</b> Exploring Matter	<b>1</b> Observing and Measuring Matter	<b>1</b> What Is Matter?	<b>2</b>
		<b>2</b> What Can We Find Out About Solids?	<b>3</b>
		<b>3</b> What Can We Find Out About Liquids?	<b>3</b>
		<b>4</b> What Can We Find Out About Gasses?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>1</b>
	<b>2</b> Changes in Matter	<b>1</b> What Happens When You Mix Matter?	<b>3</b>
		<b>2</b> How Can Water Change?	<b>3</b>
		<b>3</b> What Other Ways Does Matter Change?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>4</b>

**Dead Line for Mandatory District Unit Assessment:  
"TO BE ANNOUNCED"**

# Grade 2

## Harcourt Science Pacing

### 2001 - 2002

Unit	Chapter	Lesson	Suggested Number of Days
<b>F</b> Energy and Motion	<b>1</b> Forces and Motion	<b>1</b> What Are Forces?	<b>3</b>
		<b>2</b> How Do Magnets Work?	<b>3</b>
		<b>3</b> How Can We Measure Motion?	<b>3</b>
		<b>Review &amp; Assessment</b>	<b>3</b>
	<b>2</b> Hearing Sound	<b>1</b> What is Sound?	<b>3</b>
		<b>2</b> How Do Sounds Vary?	<b>3</b>
		<b>3</b> How Does Sound Travel?	<b>3</b>
		<b>4</b> How Can We Make Different Sounds?	<b>2</b>
		<b>Review &amp; Assessment</b>	<b>4</b>

**Dead Line for Mandatory District Unit Assessment:  
"TO BE ANNOUNCED"**

# Grade 2 Science Pacing 2001 - 2002

New York City HIV Curriculum	Suggested Number of Periods	Calendar Dates
What are some healthy choices children can make? <u>(Classroom Teacher)</u>	1	June 18 - 24
What happens when we get sick? <u>(Classroom Teacher)</u>	1	
What causes and prevents the spread of illness? <u>(Classroom Teacher)</u>	1	
What is the immune system's role in fighting illnesses? <u>(Classroom teacher)</u>	1	
How do people feel when they are sick? How do other people feel about them? <u>(Classroom Teacher)</u>	1	

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Standards	Grade 2
<b>S1</b> <b>Physical Sciences Concepts</b>	
<b>S1a</b> The student produces evidence that demonstrates understanding of properties of objects and materials, such as similarities and differences in the size, weight, and color of objects; the ability of materials to react with other substances; and different states of materials.	E 1, 1e, 4, 5-7, 8, 9-13, 14, 15-19, 21-25, 26, 27, 28-29, 32, 33-37, 35, 38, 39-43, 44, 45-49, 50, 51, 52-53, 54, 55 F 1e, 1i-j, 12, 13-17, 26-27, 31-35, 40, 41-45, 54 WB101, 103, 105, 106, 107, 108, 113, 114, 115, 116, 117, 118, 125, 137, 162-164 R 7
<b>S1b</b> The student produces evidence that demonstrates understanding of position and motion of objects, such as how the motion of an object can be described by tracing and measuring its position over time; and how sound is produced by vibrating objects.	F 1, 1e, 4, 5-11, 18, 19-23, 24, 25, 26-27, 30, 31-35, 36, 37-39, 40, 41-45, 44, 46, 47-49, 50, 51, 52-53, 54, 55 WB126, 127, 128, 132, 133, 134, 135, 136, 137, 138, 139, 140
<b>S1c</b> The student produces evidence that demonstrates understanding of light, heat, electricity, and magnetism, such as the variation of heat and temperature; how light travels in a straight line until it strikes an object or how electrical circuits work.	C 17 D 14-15 E 1 F 1, 1e, 1i-j, 11, 12, 13-17, 14, 16, 19-23, 25, 26-27, 30, 31-35, 52-53, 54 WB125, 133, 140, 162-164 R 7
<b>S2</b> <b>Life Sciences Concepts</b>	
<b>S2a</b> The student produces evidence that demonstrates understanding of characteristics of organisms, such as survival and environmental support; the relationship between structure and function; and variations in behavior.	A 1, 1e, 1i-j, 4, 5-7, 8, 9-13, 14, 15-17, 20-21, 24, 25-29, 26, 30, 31-35, 37, 38-39, 39, 70, 71 B 1, 1e, 4, 5-7, 8, 9-13, 12, 14, 15-19, 17, 18, 20, 21-27, 31, 34, 35, 36-37, 41-45, 62 C 15-17, 24, 25-29, 31-35, 37-41, 40, 42, 43, 44-45 D 37-41 WB2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 15, 16, 32, 33, 34, 35, 36, 37, 39, 40, 42, 46, 66, 67, 69, 70, 71, 72, 147-149
<b>S2b</b> The student produces evidence that demonstrates understanding of life cycles of organisms, such as how inheritance and environment determine the characteristics of an organism; and that all plants and animals have life cycles.	A 1, 1e, 9-13, 15-17, 20-21, 30, 31-35, 36, 38-39, 42, 43-47, 68-69, 70, 71 B 1, 9-13, 17, 20, 21-27, 36-37, 62 WB5, 8, 15, 16, 20, 21, 39
<b>S2c</b> The student produces evidence that demonstrates understanding of organisms and environments, such as the interdependence of animals and plants in an ecosystem; and populations and their effects on the environment.	A 30 B 1, 1e, 1i-j, 4, 5-7, 8, 9-13, 15-19, 17, 21-27, 28, 29-33, 36-37, 41-45, 46, 47-51, 49, 60-61, 62, 63 C 1, 30, 31-35, 36, 37-41, 42, 43, 44-45 WB33, 34, 41, 42, 48, 49, 52, 68, 69, 70, 71, 72, 150-152
<b>S2d</b> The student produces evidence that demonstrates understanding of change over time, such as evolution and fossil evidence depicting the great diversity of organisms developed over geologic history.	C 1, 24, 25-29, 30, 31-35, 36, 37-41, 42, 43, 44-45 WB66, 67, 68, 69, 70, 71, 72
<b>S3</b> <b>Earth and Space Sciences Concepts.</b>	
<b>S3a</b> The student produces evidence that demonstrates understanding of properties of Earth materials, such as water and gases; and the properties of rocks and soils, such as texture, color, and ability to retain water.	B 1 C 1, 1e, 4, 5-7, 19, 20-21, 46, 47 E 1, 14, 15-19, 20, 21-25, 28-29, 54, 55 WB56, 57, 62, 101, 105, 106, 107, 108
<b>S3b</b> The student produces evidence that demonstrate understanding of objects in the sky, such as Sun, Moon, planets, and other objects that can be observed and described; and the importance of the Sun to provide the light and heat necessary for survival.	D 1, 1e, 4, 5-11, 7, 12, 13-17, 18, 19-23, 24, 25-29, 31, 32-33, 43-45, 62, 63 WB77, 78, 79, 81, 82, 83, 84, 91
<b>S3c</b> The student produces evidence that demonstrates understanding of changes in Earth and sky, such as changes caused by weathering, volcanism, and earthquakes; and the patterns of movement of objects in the sky.	B 1, 41-45 D 1, 1e, 7, 19-23, 25-29, 30, 32-33, 36, 37-41, 43-45, 47-51, 52, 53-57, 60-61, 63 WB82, 84, 89, 90, 91, 93, 94, 95, 96
<b>S4</b> <b>Scientific Connections and Applications</b>	

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Standards	Grade 2
<p>S4a Big ideas and unifying concepts, such as order and organization; models, form and function; change and constancy; and cause and effect.</p>	<p>A 1, 1e, 9-13, 15-17, 20-21, 25-29, 27, 30, 31-35, 38-39, 48, 49-53, 55-59, 60, 61-65, 68-69, 70, 71 B 1, 1i-j, 9-13, 12, 14, 15-19, 20, 21-27, 29-33, 34, 36-37, 41-45, 46, 47-51, 49, 60-61, 63 C 1, 1e, 4, 5-7, 8, 9-13, 15-17, 18, 19, 20-21, 24, 25-29, 30, 31-35, 36, 37-41, 40, 42, 43, 44-45, 46, 47 D 1, 1e, 7, 13-17, 18, 19-23, 25-29, 30, 32-33, 37-41, 39, 43-45, 47-51, 60-61, 62, 63 E 1, 1e, 33-37, 38, 39-43, 45-49, 50, 51, 52-53, 54, 55 F 1, 1e, 30, 31-35, 46, 47-49, 50, 51, 52-53, 55 WB5, 8, 12, 14, 15, 16, 22, 23, 25, 26, 27, 28, 36, 39, 41, 47, 48, 49, 52, 56, 57, 60, 61, 62, 67, 68, 69, 70, 72, 79, 80, 81, 82, 84, 88, 89, 90, 91, 93, 96, 114, 115, 132, 133, 134, 138, 139, 140, 150-152 R 20-21, 22, 23</p>
<p>S4b The designed world, such as development of agricultural techniques; and the viability of technological designs.</p>	<p>D 5-11, 27</p>
<p>S4c Personal health, such as nutrition, substance abuse, and exercise; germs and toxic substances; personal and environmental safety.</p>	<p>A 49-53, 61-65 D 56-57 E 47 F 25 WB28, 95 R 10-11, 12-13, 14, 15, 16-17, 20-21, 22, 23</p>
<p>S4d Science as a human endeavor, such as communication, cooperation, and diverse input in scientific research; and the importance of reason, intellectual honesty, and skepticism.</p> <p>S4d Science as a human endeavor, such as communication, cooperation, and diverse input in scientific research; and the importance of reason, intellectual honesty, and skepticism. Continued</p>	<p>A 1i-j, 4, 8, 19, 21, 35, 56, 66, 67, 69 B 1i-j, 4, 6, 19, 28, 35, 37, 52, 54, 61, 62 C 1i-j, 8, 14, 19, 21, 27, 30, 45 D 1i-j, 4, 12, 27, 36, 46 E 1i-j, 25, 29, 53 F 1i-j, 4, 25, 27, 35, 53 WB50, 58, 68, 76, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p><b>S5 Scientific Thinking</b></p>	
<p>S5a Asks questions about natural phenomena; objects and organisms; and events and discoveries.</p>	<p>A 1i-j, 2, 22, 40 B 1i-j, 2, 20, 38 C 1i-j, 2, 22 D 1i-j, 2, 34 E 1i-j, 2, 30 F 1i-j, 2, 12, 28 WB124, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S5b Uses concepts from Science Standards 1 to 4 to explain a variety of observations and phenomena.</p> <p>S5b Uses concepts from Science Standards 1 to 4 to explain a variety of observations and phenomena. Continued</p>	<p>A 1i-j, 4, 6, 8, 12, 21, 25, 30, 33, 39, 42, 45, 52, 54, 57, 60, 64, 69, 70, 71 B 1i-j, 4, 6, 11, 14, 17, 22, 25, 26, 28, 30, 37, 40, 44, 46, 52, 55, 61, 62, 63 C 1i-j, 4, 8, 11, 14, 16, 21, 24, 25, 30, 40, 45, 46, 47 D 1i-j, 4, 6, 12, 14, 18, 20, 24, 28, 33, 36, 37, 42, 44, 46, 50, 55, 56, 61, 62, 63 E 1i-j, 6, 10, 17, 20, 23, 29, 32, 35, 40, 44, 48, 53, 54, 55 F 1i-j, 4, 7, 9, 22, 27, 32, 36, 37, 40, 46, 48, 53, 54, 55 WB2, 4, 14, 20, 26, 32, 36, 40, 46, 48, 50, 56, 58, 60, 66, 68, 76, 80, 82, 88, 90, 92, 106, 112, 116, 134, 136, 138, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>

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Standards	Grade 2
<p>S5c Uses evidence from reliable sources to construct explanations.</p>	<p>A li-j, 48 B li-j, 40, 61 C li-j, 21, 36, 45, 46 D li-j E li-j, 14, 29, 35, 38, 53 F li-j, 30, 53 WB22, 46, 70, 104, 114, 132, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S5d Evaluates different points of view using relevant experiences, observations, and knowledge; and distinguishes between fact and opinion.</p>	<p>A li-j, 8, 12, 21, 25, 30, 39, 45, 54, 60, 64, 69, 70 B li-j, 4, 6, 11, 17, 18, 22, 25, 28, 30, 37, 40, 44, 46, 52, 55, 61, 62, 63 C li-j, 8, 14, 21, 30, 38, 46, 47 D li-j, 4, 18, 20, 28, 36, 46, 61, 63 E li-j, 6, 14, 29, 32, 35, 53, 54, 55 F li-j, 4, 7, 22, 27, 32, 36, 53, 54, 55 WB4, 14, 26, 32, 40, 43, 46, 48, 50, 58, 60, 68, 76, 80, 88, 92, 104, 112, 134, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S5e Identifies problems; proposes and implements solutions; and evaluates the accuracy, design, and outcomes of investigations.</p> <p>S5e Identifies problems; proposes and implements solutions; and evaluates the accuracy, design, and outcomes of investigations. Continued</p>	<p>A li-j B li-j, 52, 63 C li-j, 14, 21 D li-j, 46, 61 E li-j, 38, 53 F li-j, 22, 30, 53 WB60, 92, 114, 132, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S5f Works individually and in teams to collect and share information and ideas.</p>	<p>A 1, li-j, 48 B 1, li-j C 1, li-j, 21, 36, 45 D 1, li-j E 1, li-j F 1, li-j WB22, 70, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p><b>S6 Scientific Tools and Technologies</b></p>	
<p>S6a Uses technology and tools (such as rulers, computers, balances, thermometers, watches, magnifiers, and microscopes) to gather data and extend the senses.</p>	<p>A li-j, 30 B li-j, 63 C li-j, 12, 14, 21 D li-j, 46, 61 E li-j, 8, 29 F li-j, 18, 22, 24 WB60, 92, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164 R 2, 3, 5, 6</p>
<p>S6b Collects and analyzes data using concepts and techniques in Mathematics Standard 4, such as average, data displays, graphing, variability, and sampling.</p>	<p>A 4, 6, 8, 18, 19, 32, 34, 36, 37, 44, 52, 66, 67 B 24, 28, 34, 35, 37, 43, 58, 59, 61 C 11, 14, 16, 18, 26, 33, 38-39, 42, 43, 45 D 1e, 6, 12, 28, 30, 36, 44, 46, 48, 54-55, 58 E 11, 18, 22, 26, 27, 29, 34, 41, 46, 50 F 4, 6, 9, 18, 21, 22, 24, 25, 27, 44, 50, 53 WB92, 126</p>
<p>S6c Acquires information from multiple sources, such as experimentation and print and non-print sources.</p>	<p>A li-j B li-j C li-j D li-j E li-j F li-j WB147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p><b>S7 Scientific Communication</b></p>	

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Standards	Grade 2
<p>S7a Represents data and results in multiple ways, such as numbers, tables, and graphs; drawings, diagrams, and artwork; and technical and creative writing.</p>	<p>A 1i-j, 19, 37 B 1i-j, 4, 6, 35, 37, 52, 59, 63 C 1i-j, 8, 21, 30, 38-39, 42, 47 D 1i-j, 4, 30, 56, 59 E 1i-j, 27, 51 F 1i-j, 51 WB10, 30, 44, 50, 54, 58, 64, 68, 76, 86, 92, 98, 110, 120, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S7b Uses facts to support conclusions.</p>	<p>A 1i-j B 1i-j, 40, 61, 63 C 1i-j, 14, 21, 46 D 1i-j, 46, 61 E 1i-j F 1i-j, 22 WB46, 60, 92, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S7c Communicates in a form suited to the purpose and the audience, such as writing instructions that others can follow.</p>	<p>A 37 B 59 C 42, 47 D 30 E 27, 55 F 25, 51 WB10, 30, 44, 54, 86, 98, 110, 120, 130</p>
<p>S7d Critiques written and oral explanations, and uses data to resolve disagreements.</p>	<p>A 1i-j B 1i-j, 18 C 1i-j, 38 D 1i-j, 28 E 1i-j F 1i-j WB43, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p><b>S8 Scientific Investigation</b></p>	
<p>S8a An experiment, such as conducting a fair test.</p>	<p>A 1i-j B 1i-j C 1i-j D 1i-j E 1i-j F 1i-j WB147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S8b A systematic observation, such as a field study.</p> <p>S8b A systematic observation, such as a field study. Continued</p>	<p>A 1i-j, 4, 6, 8, 12, 21, 25, 30, 39, 45, 54, 57, 60, 64, 69, 70 B 1i-j, 11, 17, 20, 22, 25, 26, 28, 30, 37, 44, 46, 55, 61, 62, 63 C 1i-j, 14, 16, 21, 40, 45, 46, 47 D 1i-j, 12, 18, 20, 24, 28, 33, 36, 37, 46, 50, 56, 61, 63 E 1i-j, 6, 10, 17, 29, 32, 35, 48, 53, 54, 55 F 1i-j, 4, 7, 12, 22, 27, 32, 36, 37, 46, 48, 53, 54, 55 WB2, 4, 14, 26, 32, 40, 48, 60, 80, 82, 88, 92, 112, 124, 134, 138, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164</p>
<p>S8c A design, such as building a model or scientific apparatus.</p>	<p>A 48 B 52 C 21, 36, 45 WB22, 70</p>
<p>S8d Non-experimental research using print and electronic information, such as journals, video, or computers.</p>	<p>A 1e, 2c, 5, 15, 22c, 25, 31, 40c, 61, 72 B 1e, 2c, 5, 9, 15, 38c, 41, 47, 64 C 1e, 2c, 5, 22c, 31, 37, 48 D 1e, 2c, 5, 13, 34c, 37, 47, 53, 64 E 1e, 2c, 9, 21, 30c, 56 F 1e, 2c, 5, 28c, 47, 56</p>

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 LEARNING STANDARDS FOR MATHEMATICS, SCIENCE, AND TECHNOLOGY  
**ELEMENTARY SCHOOL**

Standards	Grade 2
<b>STANDARD 1 - ANALYSIS, INQUIRY, AND DESIGN</b> <b>Scientific Inquiry</b>	
1. The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	
ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.	A 1i-j, 2, 22, 40 B 1i-j, 2, 38 C 1i-j, 2, 22 D 1i-j, 2, 34 E 1i-j, 2, 30 F 1i-j, 2, 28
question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings.	A 1i-j, 4, 8, 11, 14, 18, 24, 28, 30, 42, 48, 54, 57, 60, 70, 71 B 1i-j, 4, 8, 10, 14, 17, 20, 23, 28, 40, 46, 49, 52, 54, 56, 62, 63 C 1i-j, 4, 8, 10, 12, 14, 24, 27, 30, 36, 46, 47 D 1i-j, 7, 12, 18, 20, 24, 27, 36, 42, 44, 46, 49, 62, 63 E 1i-j, 4, 8, 12, 14, 17, 20, 32, 35, 38, 44, 46, 48, 54, 55 F 1i-j, 4, 8, 10, 12, 14, 16, 18, 20, 30, 33, 36, 40, 43, 44, 46, 54, 55
develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed.	A 1i-j, 4, 8, 12, 21, 25, 30, 39, 45, 54, 60, 64, 69, 70 B 1i-j, 11, 17, 22, 25, 28, 30, 37, 44, 46, 55, 61, 62 C 1i-j, 14, 21, 45, 46, 47 D 1i-j, 12, 18, 20, 28, 33, 36, 46, 61, 62, 63 E 1i-j, 6, 8, 29, 32, 53, 54, 55 F 1i-j, 4, 7, 27, 32, 36, 53, 54, 55 WB4, 10, 14, 26, 32, 40, 44, 48, 54, 78, 80, 86, 88, 98, 102, 110, 112, 120, 134, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
2. Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity	
develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations they have helped formulate.	A 1i-j B 1i-j, 20 C 1i-j D 1i-j E 1i-j, 38, 53 F 1i-j, 12, 30, 53 WB114, 124, 132, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
share their research plans with others and revise them based on their suggestions.	A 1i-j B 1i-j C 1i-j D 1i-j E 1i-j, 38, 53 F 1i-j, 30, 53 WB114, 132, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities (e.g., length, mass, volume, temperature, and time).	A 1i-j, 6, 8, 12, 21, 25, 30, 32, 36, 39, 44, 45, 54, 60, 64, 69, 70 B 11, 17, 22, 25, 28, 30, 34, 35, 44, 46, 55, 62 C 1i-j, 11, 46, 47 D 1e, 1i-j, 18, 20, 28, 36, 44, 46, 48, 54, 58, 61, 63 E 5-7, 6, 8, 9-13, 12-13, 14, 15-19, 18-19, 21-25, 24-25, 27, 28-29, 32, 35, 41, 46, 50, 53, 54, 55 F 4, 6, 7, 18, 21, 27, 32, 36, 50, 53, 54, 55 WB4, 14, 26, 32, 40, 48, 80, 88, 103, 104, 108, 112, 134, 147-149 R 2, 3, 4, 5, 6, 8
carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities (e.g., length, mass, volume, temperature, and time).	
Continued	

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**ELEMENTARY SCHOOL**

Standards	Grade 2
3. The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena.	
organize observations and measurements of objects and events through classification and the preparation of simple charts and tables.	A 1i-j, 4, 8, 12, 14, 16, 21, 24, 25, 30, 39, 45, 54, 60, 64, 69, 70 B 8, 11, 17, 22, 25, 28, 30, 37, 44, 46, 55, 59, 61, 62, 63 C 14, 26, 45, 46, 47 D 12, 18, 20, 28, 30, 36, 46, 52, 54-55, 61, 63 E 4, 6, 14, 29, 32, 35, 53, 54, 55 F 4, 7, 27, 32, 36, 53, 54, 55 WB4, 6, 12, 14, 26, 32, 34, 40, 48, 80, 88, 94, 100, 104, 112, 134, 147-149
interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.	A 1i-j, 4, 6, 8, 12, 21, 25, 30, 39, 45, 54, 57, 60, 64, 69, 70 B 1i-j, 11, 17, 22, 25, 26, 28, 30, 37, 44, 46, 55, 61, 62, 63 C 1i-j, 14, 16, 21, 40, 46, 47 D 1i-j, 12, 18, 20, 24, 28, 33, 36, 37, 46, 50, 56, 61, 62, 63 E 1i-j, 6, 8, 10, 14, 17, 29, 32, 35, 48, 53, 54, 55 F 1i-j, 4, 7, 22, 27, 32, 36, 37, 46, 48, 53, 54, 55 WB2, 4, 14, 26, 32, 40, 48, 60, 78, 80, 82, 88, 92, 102, 104, 112, 134, 138, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
share their findings with others and actively seek their interpretations and ideas.	A 1i-j, 4, 8, 21, 69 B 1i-j, 4, 6, 28, 37, 52, 61, 62 C 1i-j, 8, 14, 21, 30, 45 D 1i-j, 4, 12, 36, 46 E 1i-j, 29, 53, 55 F 1i-j, 4, 27, 53 WB50, 58, 68, 76, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
adjust their explanations and understandings of objects and events based on their findings and new ideas.	A 1i-j B 1i-j, 40, 61 C 1i-j, 46 D 1i-j E 1i-j F 1i-j WB46, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
<b>STANDARD 2--INFORMATION SYSTEMS</b>	
1. Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning.	
use a variety of equipment and software packages to enter, process, display, and communicate information in different forms using text, tables, pictures, and sound.	A 37 B 43 D 58
access needed information from printed media, electronic data bases, and community resources	A 1e, 5, 15, 25, 31, 61, 67, 72 B 1e, 5, 9, 15, 41, 47, 64 C 1e, 5, 31, 37, 48 D 1e, 5, 13, 37, 47, 53, 64 E 1e, 9, 21, 56 F 1e, 5, 47, 56
2. Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use.	
describe the uses of information systems in homes, schools, and businesses.	A 1e, 5, 15, 25, 31, 37, 61, 72 B 1e, 5, 9, 15, 41, 43, 47, 64 C 1e, 5, 31, 37, 48 D 1e, 5, 13, 37, 47, 53, 58, 64 E 1e, 9, 21, 56 F 1e, 5, 47, 56
demonstrate ability to evaluate information	
3. Information technology can have positive and negative impacts on society, depending upon how it is used.	

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**ELEMENTARY SCHOOL**

Standards	Grade 2
describe the uses of information systems in homes and schools.	A 1e, 5, 15, 25, 31, 37, 61, 72 B 1e, 5, 9, 15, 41, 43, 47, 64 C 1e, 5, 31, 37, 48 D 1e, 5, 13, 37, 47, 53, 58, 64 E 1e, 9, 21, 56 F 1e, 5, 47, 56
demonstrate ability to evaluate information critically.	
<b>STANDARD 4 - SCIENCE</b>	
<b>Physical Setting</b>	
1. The Earth and celestial phenomena can be described by principles of relative motion and perspective.	
describe patterns of daily, monthly, and seasonal changes in their environment.	D 1, 1e, 7, 12, 13-17, 19-23, 25-29, 30, 32-33, 36, 37-41, 43-45, 46, 47-51, 54, 58, 60-61, 62, 63 WB82, 84, 89, 91, 92, 93, 96
2. Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	
describe the relationships among air, water, and land on Earth.	B 1, 41-45 C 5-7, 20-21, 24, 25-29, 44-45, 46, 47 D 1, 43-45, 60-61, 62 WB57, 62, 66, 67, 72, 90, 91, 96
3. Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.	
observe and describe properties of materials using appropriate tools.	A 30 B 63 C 12 E 4, 5-7, 8, 9-13, 14, 15-19, 21-25, 26, 27, 28-29, 35 WB101, 103, 105, 106, 107, 108 R 2
describe chemical and physical changes, including changes in states of matter.	E 1, 1e, 1i-j, 33-37, 38, 39-43, 44, 45-49, 50, 51, 52-53, 54, 55 WB113, 114, 115, 116, 117, 159-161
4. Energy exists in many forms, and when these forms change energy is conserved.	
describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.	D 14-15, 32-33 E 44, 45-49 F 30, 31-35, 46, 47-49, 50, 52-53 WB84, 133, 138, 139, 140
observe the way one form of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).	D 14-15 E 45-49, 52-53 WB116, 117
5. Energy and matter interact through forces that result in changes in motion.	
describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.	F 1e, 1i-j, 4, 5-11, 11, 12, 13-17, 19-23, 24, 25, 26-27, 54 WB125, 126, 127, 128, 162-164 R 7
describe how forces can operate across distances.	F 1e, 5-11, 13-17, 14, 18, 19-23, 24, 25, 26-27 WB125, 126, 127, 128
<b>The Living Environment</b>	
1. Living things are both similar to and different from each other and nonliving things.	
describe the characteristics of and variations between living and nonliving things.	A 1, 1i-j, 4, 5-7, 8, 9-13, 14, 15-17, 20-21, 25-29, 30, 31-35, 38-39, 71 B 1, 4, 9-13, 17, 21-27, 40, 41-45, 62 WB2, 3, 4, 5, 6, 7, 8, 12, 13, 16, 32, 39, 46, 147-149
describe the life processes common to all living things.	A 1, 1e, 9-13, 15-17, 20-21, 25-29, 30, 31-35, 36, 38-39, 54, 55-59 B 5-7, 9-13, 15-19 WB5, 14, 15, 16, 25, 28, 32
2. Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.	

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<b>Standards</b>	<b>Grade 2</b>
recognize that traits of living things are both inherited and acquired or learned.	A 1e, 30, 31-35, 38-39 B 21-27, 36-37 WB15
recognize that for humans and other living things there is genetic continuity between generations.	A 1e, 30, 31-35, 38-39 WB15
<b>3. Individual organisms and species change over time.</b>	
describe how the structures of plants and animals complement the environment of the plant or animal.	A 15-17, 27 B 1, 1e, 4, 5-7, 8, 9-13, 14, 15-19, 34, 35, 36-37, 62 WB33, 34, 35, 37, 39, 40, 42
observe that differences within a species may give individuals an advantage in surviving and reproducing.	A 15-17, 25-29 B 1, 9-13, 20, 21-27, 36-37 WB39
<b>4. The continuity of life is sustained through reproduction and development.</b>	
describe the major stages in the life cycles of selected plants and animals.	A 1, 1e, 9-13, 15-17, 20-21, 30, 31-35, 36, 38-39, 70 WB5, 8, 15, 16
describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises.	A 1e, 9-13, 20-21, 30, 31-35, 38-39, 42, 43-47, 68-69, 70, 71 WB5, 8, 15, 20, 21
<b>5. Organisms maintain a dynamic equilibrium that sustains life.</b>	
describe basic life functions of common living specimens (guppy, mealworm, gerbil).	A 1, 9-13, 15-17, 20-21, 25-29, 26, 30, 31-35, 36, 38-39 B 5-7, 9-13, 15-19, 17, 18, 21-27, 36-37, 41-45, 62 WB5, 8, 14, 15, 16, 32, 34
describe some survival behaviors of common living specimens.	A 15-17, 25-29 B 1, 9-13, 20, 21-27, 36-37 WB39
describe the factors that help promote good health and growth in humans.	A 1, 54, 55-59, 61-65 E 47 F 25 WB25, 28 R 12-13, 20-21, 22, 23
<b>6. Plants and animals depend on each other and their physical environment.</b>	
describe how plants and animals, including humans, depend upon each other and the nonliving environment.	A 1, 5-7, 9-13, 20-21 B 5-7, 9-13, 15-19, 18, 28, 29-33, 34, 36-37, 41-45, 53-57 C 1, 1e, 4, 5-7, 8, 9-13, 14, 15-17, 18, 19, 20-21, 46 WB5, 8, 32, 41, 56, 57, 58, 59, 60, 61, 62
describe the relationship of the sun as an energy source for living and nonliving cycles.	A 1i-j, 9-13 B 29-33 D 13-17, 32-33, 63 WB41, 79, 147-149
<b>7. Human decisions and activities have had a profound impact on the physical and living environment.</b>	
identify ways in which humans have changed their environment and the effects of those changes.	B 1i-j, 41-45, 46, 47-51, 48, 49, 50, 53-57, 58, 59, 60-61, 63 WB48, 49, 51, 52, 150-152
<b>STANDARD 5 - TECHNOLOGY</b>	
<b>Computer Technology</b>	
<b>3. Computers, as tools for design, modeling, information processing, communication, and system control, have greatly increased human productivity and knowledge.</b>	
use the computer as a tool for generating and drawing ideas.	A 1e, 5, 15, 25, 31, 37, 61, 72 B 1e, 5, 9, 15, 41, 43, 47, 64 C 1e, 5, 31, 37, 48 D 1e, 5, 13, 37, 47, 53, 58, 64 E 1e, 9, 21, 56 F 1e, 5, 47, 56
<b>Technological Systems</b>	
<b>4. Technological systems are designed to achieve specific results and produce outputs, such as products, structures, services, energy, or other systems.</b>	

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Standards	Grade 2
identify familiar examples of technological systems that are used to satisfy human needs and wants, and select them on the basis of safety, cost, and function.	
assemble and operate simple technological systems, including those with interconnecting mechanisms to achieve different kinds of movement.	
understand that larger systems are made up of smaller component subsystems.	C 17
History and Evolution of Technology 5. Technology has been the driving force in the evolution of society from an agricultural to an industrial to an information base.	
identify technological developments that have significantly accelerated human progress.	
Impacts of Technology 6. Technology can have positive and negative impacts on individuals, society, and the environment and humans have the capability and responsibility to constrain or promote technological development	
describe how technology can have positive and negative effects on the environment and on the way people live and work.	B 1i-j, 41-45, 46, 47-51, 48, 49, 50, 52, 53-57, 58, 59, 60-61, 63 F 10 WB48, 49, 50, 51, 52, 150-152
<b>STANDARD 6--INTERCONNECTEDNESS: COMMON THEMES</b>	
Systems Thinking 1. Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions.	
observe and describe interactions among components of simple systems.	A 5-7 B 29-33, 34 C 17, 46, 47 D 5-11, 25-29, 32-33 WB8, 41, 57, 77, 81, 84
identify common things that can be considered to be systems (e.g., a plant population, a subway system, human beings).	A 5-7 B 29-33, 34 C 17, 46, 47 D 5-11, 25-29, 32-33 WB8, 41, 57, 77, 81, 84
Models 2. Models are simplified representations of objects, structures, or systems used in analysis, explanation, interpretation, or design.	
analyze, construct, and operate models in order to discover attributes of the real thing.	A 48 C 21, 36, 45 WB22, 70
discover that a model of something is different from the real thing but can be used to study the real thing.	A 48 C 21, 36, 45 WB22, 70
use different types of models, such as graphs, sketches, diagrams, and maps, to represent various aspects of the real world.	A 9, 10, 32-33, 49, 65 C 38-39 D 19, 22-23 F 15, 34 WB92
Magnitude and Scale 3. The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems.	
provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds, and other measurements.	A 14, 24, 25-29, 32, 36 B 35 E 1, 4, 9-13, 12, 14, 17, 28-29 F 18, 19-23, 26-27 WB6, 12, 101, 103, 108, 126, 127
identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior.	A 1, 1i-j, 8, 9-13, 71 B 41-45 C 38 E 8, 29, 50 F 18, 19-23, 24, 26-27, 37-39, 44, 52-53 WB4, 46, 126, 127, 135, 136, 147-149 R 5

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Standards	Grade 2
<b>Equilibrium and Stability</b> 4. Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	
cite examples of systems in which some features stay the same while other features change.	A 1e, 5-7, 42, 43-47, 68-69 B 1, 41-45, 47-51 C 5-7, 14, 15-17, 20-21, 46 D 1, 1e, 1i-j, 7, 19-23, 25-29, 30, 32-33, 37-41, 42, 43-45, 52, 53-57, 60-61, 62, 63 WB57, 62, 82, 84, 89, 90, 91, 93, 94, 95, 96, 156-158
distinguish between reasons for stability - from lack of changes to changes that counterbalance one another to changes within cycles.	B 1 D 19-23, 32-33, 37-41, 43-45, 60-61 F 19-23 WB81, 91, 96
<b>Patterns of Change</b> 5. Identifying patterns of change is necessary for making predictions about future behavior and conditions.	
use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data.	A 6, 32, 36, 44 B 34 C 1, 11, 33 D 12, 33, 44, 58, 62, 63 E 5-7, 8, 9-13, 11, 12-13, 15-19, 18-19, 21-25, 24-25, 27, 28-29, 35, 41 F 6, 18, 19-23, 21, 26-27, 50 WB78, 103, 104, 108, 126, 127 R 3, 6, 8
analyze data by making tables and graphs and looking for patterns of change.	A 4, 8, 37 B 24, 28, 37, 59, 61 C 14, 26, 38-39, 45 D 12, 30, 36, 46, 54-55, 58 E 29 F 4, 27, 53 WB92
<b>Optimization</b> 6. In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	
determine the criteria and constraints of a simple decision making problem.	B 52
use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.	B 52
<b>STANDARD 7--INTERDISCIPLINARY PROBLEM SOLVING</b>	
<b>Connections</b> 1. The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision making, design, and inquiry into phenomena.	
analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action.	B 47-51, 52, 53-57, 58, 59, 60-61, 63 WB48, 50, 51, 52
design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute.	A 6, 18, 19, 32, 34, 36, 37, 44, 52, 66, 67 B 24, 34, 35, 43, 47-51, 52, 58, 60-61, 63 C 11, 16, 18, 33, 38, 42, 43 D 1e, 6, 28, 30, 44, 48, 54, 58 E 11, 18, 22, 26, 27, 34, 41, 46, 50 F 6, 9, 21, 22, 24, 25, 44, 50
observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions.	A 1i-j, 6, 14, 15-17, 18, 19, 20-21, 32, 34, 36, 37, 44, 52, 66, 67 B 1i-j, 24, 34, 35, 43, 58 C 1i-j, 11, 16, 18, 33, 38, 42, 43 D 1e, 1i-j, 6, 28, 30, 44, 48, 54, 58 E 1i-j, 11, 18, 22, 26, 27, 34, 41, 46, 50 F 1i-j, 6, 9, 21, 22, 24, 25, 44, 50 WB6, 7, 147-149, 150-152, 153-154, 156-158, 159-161, 162-164
<b>Strategies</b> 2. Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics,	

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<b>Standards</b>	<b>Grade 2</b>
science, and technology; and presenting results.	
students participate in an extended, culminating mathematics, science, and technology project. The project would require students to: work effectively gather and process information generate and analyze ideas observe common themes realize ideas present results	A 1 B 1, 48, 52, 53-57, 58, 59, 60-61, 63 C 1 D 1 E 1 F 1 WB48, 50, 51, 52

Grade 2 Harcourt  
Science Concept  
Map

Life Science

Living Things Grow  
and Change

Homes For  
Living Things

Plants Grow and  
Change

Animal Grow and  
Change

People Grow and  
Change

Habitats for  
Plants and  
Animals

Changes in  
Habitats

What Are Living and  
Nonliving Things?

How Are Animals Alike  
and Different?

How Will I Grow?

What Is a Habitat?

How Does Weather  
Change Habitats?

How Do Plants Grow  
and Change?

What Are Some  
Animal Life Cycles?

What Do My Bones  
and Muscles Do?

What Are Different  
Land Habitats?

How Does Pollution  
Change Environments?

How Are Plants Alike  
and Different?

How Do My Heart and  
Lungs Work?

What Are Some  
Animal Adaptations?

How Do People Help  
the Environment?

How Do I Digest  
Food?

How Do Plants and  
Animals Help Each  
Other?

Approximate date of  
Mandatory District Unit  
Assesment  
October 31, 2001

Approximate date of  
Mandatory District  
Unit  
Assesment  
December 18, 2001

September

October

November

December

December 18, 2001

Grade 2 Harcourt  
Science Concept  
Map

Earth Science

DISTRICT  
**8**  
Educational Excellence  
For Everyone

Exploring Earth's  
Surface

Space and Weather

Earth's  
Resources

Earth Long Ago

The Solar  
System

Earth's Weather

How Do People Use  
Rocks and Soil?

What Is a Fossil?

What Are Stars and  
Planets?

How Does Weather  
Change?

How Do People Use  
Plants?

What Have Scientists  
Learned from Fossils?

What Causes Day and  
Night?

What Is the Water  
Cycle?

How Do People Use  
Water?

What Have Scientists  
Learned About  
Dinosaurs?

What Causes the  
Seasons?

How Do We Measure  
Weather Conditions?

How Does the Moon  
Move and Change?

How Can We Prepare  
for Weather?

December      January

Approximate date of  
Mandatory Distric  
Unit  
Assesment  
January 31, 2002

February

March

Approximate date of  
Mandatory Distric  
Unit  
Assesment  
March 21, 2002



Grade 2 Harcourt  
Science Concept  
Map

Physical Science

Exploring Matter

Energy and Motion

Observing and  
Measuring  
Matter

Changes in  
Matter

Forces and  
Motion

Hearing Sound

What Is Matter?

What Happens When  
You Mix Matter?

What Are Forces?

What is Sound?

What Can We Find  
Out About Solids?

How Can Water  
Change?

How Do Magnets  
Work?

How Do Sounds Vary?

What Can We Find  
Out About Liquids?

What Other Ways  
Does Matter Change?

How Can We Measure  
Motion?

How Does Sound  
Travel?

What Can We Find  
Out About Gasses?

How Can We Make  
Different Sounds?

