

# Managed Curriculum



## Fifth Grade Science

2011-2012 School Year



**John White, RSD Superintendent**

# Science Grade 5



2011-2012  
The Managed Curriculum

## Opening of School Introductory Unit

### Focus on Pacing

There is a natural tendency, when using new materials, to begin more slowly. However, because there is so much science content to review and teach in the course of a year, it is expected that you set the pace at the beginning of the school year. Students generally adjust to the pace of the teacher. This will ensure that *ALL* of the concepts will be covered prior to testing (GLEs).

There may be times when it will seem difficult to maintain the pace. But it is important to understand that a slow pace can make it too easy to lose perspective and difficult to relate ideas. If you spend too much time on certain lessons, you will find that your slowest students may have learned more by having gone through content slowly, but the other students may have learned less. The wise teacher strikes a balance, goes quickly enough to keep things interesting but slowly enough to have time for explanations. Make adjustments for students with special needs: individualized lessons, learner center activities, additional homework and/or extended day/week/year opportunities.

### Teachers should use this unit to:

- develop classroom culture and establish classroom routines
- administer Pre test to determine students' strengths and weaknesses
- practice and use test taking strategies
- discuss , model and reinforce *Science Safety*

### Suggested Resources

- CHAMP Module 4
- Review science safety contract
- Review Test Taking Strategies  
Louisiana Guide to Statewide Assessment (La. Web site , RSD "Z" drive or Handbook CD)

### *i* LEAP Test Specifications

Strand/ Category	% of Total Points
Science as Inquiry	20
Physical Science	20
Life Science	20
Earth and Space Science	22
Science and the Environment	16
Total	100

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### *i* LEAP Test Structure and Description

- The science test is a criterion-referenced test that includes items based entirely on the Louisiana content standards and aligned with the GLEs.
- The test has forty-six (46) multiple choice items.
- The science test is untimed. However, it is suggested that the test will take about 60 minutes.
- The skills are assessed in the five strands of the LCC.

Note: Differentiated instruction activities for students who are advanced, Tier II, Tier III, or English Language Learners can be found in the wrap-around text of the Teacher's Edition on the text pages indicated

Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>differentiate between a solution and a mixture.</li> <li>various substances by their measurements.</li> <li>compare the mass of a mixture to the mass of its parts.</li> <li>observe, explain, communicate and organize data.</li> <li>differentiate the physical and chemical properties of various substances.</li> </ul>	<p><b>SI:</b> 1, 6, 7, 8, 11, 12, 13, 19, 20, 23</p> <p><b>PS:</b> 1, 2, 4, 6</p>	<p style="text-align: center;">Unit 1: Properties; Unit 2: Reactions Unit3: Force, Motions and Energy Transformations</p>	<p>FOSS: Mixtures &amp; Solutions – Investigation 1 p. 1-31 (<i>Separating Mixtures</i>) FOSS Science Stories: <i>Mixtures and Solutions</i> after part 2 of Investigation 1</p> <p>FOSS Science Stories: <i>A Salty Story</i> before part 3</p> <p>FOSS Science Stories: <i>Earth Elements</i> before part 4</p> <p>LCC Unit 1 - Activity 1 LCC Unit 1 – Activity 5</p>	<p><a href="http://www.Fossweb.com">www.Fossweb.com</a></p> <p>Harcourt Science - p. 446 – 455; p. 438</p> <p><i>Science Safety Contract BLM</i></p>
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>investigate the behavior of solid materials in water.</li> <li>understand the concept of saturation.</li> <li>measure volume of solids and liquids.</li> <li>compare solubility of materials.</li> </ul>	<p><b>SI:</b> 6, 9, 11, 29,</p> <p><b>PS:</b> 1, 2, 14</p>		<p>FOSS: Mixtures &amp; Solutions – Investigation 2 p. 1-32 (<i>Reaching Saturation</i>) FOSS Science Stories: <i>Decompression Sickness</i> after part 1 FOSS Science Stories: <i>Sour Power</i> after part 2</p> <p>Math Extensions p. 30 – Graph using a histogram</p> <p>LCC Unit 1 -Activity 6 LCC Unit 3 – Activity 7 LCC Unit 3 – Activity 9</p>	<p><a href="http://www.Fossweb.com">www.Fossweb.com</a></p> <p>Harcourt Science Grade 5 – pgs. 512-542;</p>
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>measure the volume of various solids and liquids.</li> <li>understand the concept of concentration</li> <li>determine the relative concentrations of solutions.</li> </ul>	<p><b>SI:</b> 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13</p> <p><b>PS:</b> 1, 2, 3, 4, 6</p>		<p>FOSS: Mixtures &amp; Solutions – Investigation 3 p. 1- 28 (Concentration)</p> <p>FOSS Science Stories: <i>Grow Your Own Crystals</i> after part 1 FOSS Science Stories: <i>The Air you Breathe</i> after part 3</p>	<p><a href="http://www.Fossweb.com">www.Fossweb.com</a></p> <p>Harcourt Science – p. 439</p>

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Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<p>Students will:</p> <ul style="list-style-type: none"> <li>observe and compare materials before and after a chemical reaction.</li> <li>investigate properties of chemical reactions.</li> <li>describe early models of the atom and explain how they have changed since first proposed by scientists.</li> <li>identify models of atoms by their atomic structure and the electrical charge of protons, neutrons, and electrons.</li> </ul>	<p>SI: 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13</p> <p>PS: 1, 2, 3, 4, 5 6</p>	<p>Unit 1: Properties; Unit 2: Reactions Unit 3: Force, Motions and Energy Transformations</p>	<p>FOSS: Mixtures &amp; Solutions – Investigation 4 p. 1- 31</p> <p>FOSS Science Stories: <i>What a Reaction</i> and <i>What is Matter Made of</i> after part 1</p> <p>FOSS Science Stories: <i>Ask a Chemist</i> and <i>The Periodic Table</i> after part 2 LCC Unit 1 – Activity 7 &amp; 8 LCC Unit 2 – Activity 1 LCC Unit 2 – Activity 5</p> <p>FOSS Science Stories: <i>The Metals</i> and <i>The History of Rubber</i> Math Extensions p. 30</p>	<p><a href="http://www.Fossweb.com">www.Fossweb.com</a></p> <p>Harcourt Science Grade 5 – pgs. 438- 467</p> <p><i>Changing Phases BLM</i></p> <p><i>Physical or Chemical BLM</i></p>
<p>Students will:</p> <ul style="list-style-type: none"> <li>make multisensory observations of black boxes.</li> <li>develop conceptual models of black boxes based on evidence.</li> <li>communicate modes through discussion and drawing.</li> <li>construct physical models to compare to conceptual models.</li> <li>modify and revise models based on additional evidence.</li> </ul>	<p>SI: 7, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 40</p> <p>PS: 1, 2, 4, 8</p>		<p>FOSS: Models and Designs – Investigation 1 p. 1 – 21 (parts 1 and 2) (<i>Black Boxes</i>)</p> <p>FOSS Science Stories: <i>Everyday Mysteries</i> after part 1</p> <p>FOSS Science Stories: <i>Scientists and Models</i> after part 2</p> <p>LCC Unit 1 -Activity 2 and 4</p>	<p><a href="http://www.Fossweb.com">www.Fossweb.com</a></p> <p><i>Identify that Object BLM</i></p>
<p>Students will:</p> <ul style="list-style-type: none"> <li>construct physical models to compare to conceptual models.</li> <li>modify and revise models based on additional evidence.</li> </ul>	<p>SI: 6, 7, 8, 11, 12, 14, 15, 16, 19, 31, 35, 39, 40</p> <p>ESS: 38</p>		<p>FOSS: Models and Designs – Investigation 1 p. 22-28 (part 3)</p> <p>FOSS Science Stories: <i>Life on Earth 150 Million Years Ago</i></p> <p>Math Extension p. 26 - 27</p>	<p><a href="http://www.Fossweb.com">www.Fossweb.com</a></p>

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Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<b>Students will:</b> <ul style="list-style-type: none"> <li>observe a fanciful device called a hum dinger.</li> <li>organize and assemble components to make a physical model of a hum dinger.</li> <li>compare their models to a working hum dinger.</li> </ul>	<b>SI:</b> 1, 2, 4, 14, 15, 17, 29, 40  <b>PS:</b> 8, 14	Unit 1: Properties Unit 2: Reactions Unit 3: Force, Motion and Energy Transformations	<b>FOSS: Models and Designs – Investigation 2</b> <b>p. 1- 20</b> (part 1 and portion of part 2)  FOSS Science Stories: <i>Simulations</i> after part 1	<a href="http://www.Fossweb.com">www.Fossweb.com</a>
<b>Students will:</b> <ul style="list-style-type: none"> <li>organize and assemble components to make a physical model of a hum dinger.</li> <li>compare their models to a working hum dinger.</li> </ul>	<b>SI:</b> 1, 2, 4, 14, 15, 17, 29, 40  <b>PS:</b> 8, 14  <b>ESS:</b> 47		<b>FOSS: Models and Designs – Investigation 2</b> <b>p. 20 - 28</b> (portion of part 2 and part 3)  FOSS Science Stories: <i>The Path to Invention</i> after part 2 Math Extension – pg. 26	<a href="http://www.Fossweb.com">www.Fossweb.com</a>
<b>Students will:</b> <ul style="list-style-type: none"> <li>construct rolling carts from familiar materials.</li> <li>use a design and test approach to solve problems.</li> </ul>	<b>SI:</b> 1, 2, 4, 6, 7, 8, 14, 15, 19, 22, 25, 29, 33, 37, 39, 40,  <b>PS:</b> 7, 9, 10		<b>FOSS: Models and Designs – Investigation 3</b> <b>p. 1 -12</b> (part 1)  FOSS Science Stories: <i>Early Autos</i> after part 1  LCC Unit 3 – Activity 3	<a href="http://www.Fossweb.com">www.Fossweb.com</a>  Harcourt Science Grade 5 – pgs. 582 - 590  <i>Force, Motion, and Energy Vocabulary Chart BLM</i>
<b>Students will:</b> <ul style="list-style-type: none"> <li>use eye hand coordination and spatial relationships to design carts that perform predetermined functions.</li> <li>relate structures to functions.</li> </ul>	<b>SI:</b> 1, 2, 4, 6, 7, 8, 14, 15, 19, 22, 25, 29, 33, 37, 39, 40,  <b>PS:</b> 1, 7, 9, 10		<b>FOSS: Models and Designs – Investigation 3:</b> <b>p. 13 – 28</b> (parts 2 and 3)  FOSS Science Stories: <i>Henry Ford and His Model T</i> after part 2  FOSS Science Stories: <i>On the Line</i> and <i>What Makes Things Move?</i> After part 3  Math Extension pg. 24- 25 LCC Unit 3 – Activity 6	<a href="http://www.Fossweb.com">www.Fossweb.com</a>  Harcourt Science Grade 5 – pgs. 470- 477

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Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<b>Students will:</b> <ul style="list-style-type: none"> <li>modify their self-propelled cart to turn a corner as well as go the distance.</li> <li>relate cart design to performance.</li> <li>investigate the relationships among variables that result in various changes in cart behavior.</li> </ul>	<b>SI:</b> 29, 33, 37, 38, 39, 40  <b>PS:</b> 1, 9, 10	Unit 1: Properties Unit 2: Reactions, Unit 3: Force, Motion and Energy Transformations	<b>FOSS:</b> Models and Designs – Investigation 4: Cart Tricks p. 1 – 14  FOSS Science Stories: <i>Smart Cars and Space Planes</i> – see Science Stories folio p. 20 Math Extension Problem of the Week - p. 21	Have students research automotive engineering advances shown on p. 21 and report to class
<b>Students will:</b> <ul style="list-style-type: none"> <li>learn that a variable is anything you can change in a design that might affect the performance of the product.</li> <li>present projects to the class.</li> </ul>	<b>SI:</b> 29, 30, 33, 37, 38, 39, 40  <b>PS:</b> 1, 9, 10		<b>FOSS:</b> Models and Designs – Investigation 4 (p. 14 – 20) FOSS Science Stories: <i>Inertia and Momentum</i>	Harcourt Science – p. 604 - 625
<b>Students will:</b> <ul style="list-style-type: none"> <li>observe and compare a variety of organisms.</li> <li>identify the stages of a plant from seed to maturity.</li> <li>identify factors that make-up a terrestrial environment.</li> <li>investigate how moisture affects isopod and beetle behavior.</li> <li>investigate types of environments isopods and beetles prefer.</li> <li>identify the cell as the basic unit of living things</li> <li>observe, identify, and describe the basic components of cells and their functions.</li> <li>compare plant and animal cells and label components.</li> </ul>	<b>SI:</b> 1, 4, 5, 12, 20, 22,  <b>LS:</b> 15, 16, 17	Unit 4: Cells to Living Organisms Unit 5: Ecosystems FOSS Kit : Environments	<b>FOSS:</b> Environments– Investigation 1: Terrestrial Environments p. 1 – 15 (Setting Up Terrariums)  Investigation 2: Bugs and Beetles p. 1-21 (Making Animal Runways and Responding to Moisture) FOSS Science Stories: <i>Amazon Rainforest Journal</i> <i>Darkling Beetle</i>  Unit 4: LCC Activities 1 and 2	<i>Plant and Animal Cell Parts BLM</i>  Harcourt Science – p. 33 – 35
<b>Students will:</b> <ul style="list-style-type: none"> <li>investigate how light affects isopod and beetle behavior.</li> <li>organize and analyze data from animal investigations</li> <li>conduct experiments with four kinds of plants to discover their range of tolerance for water</li> <li>evaluate the ability of an ecosystem to support a population.</li> <li>describe adaptations of plants and animals that allow them to thrive in different environments.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18, 22 <b>LS:</b> 29, 27  <b>SE:</b> 48		<b>FOSS:</b> Environments– Investigation 1 : Terrestrial Environments p. 16 24 (Recording Changes) FOSS Science Stories: <i>Terrestrial Environments Around the World</i> <b>FOSS:</b> Environments– Investigation 3:Water Tolerance p. 1 – 13 (Setting Up the Experiment) FOSS Science Stories: <i>Auntie's Plants</i> Unit 5: LCC Activity	Harcourt Science – p 179, 160, 194-195, 176 - 183

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Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>investigate how light affects isopod and beetle behavior.</li> <li>organize and analyze data from animal investigations</li> <li>conduct experiments with four kinds of plants to discover their range of tolerance for water</li> <li>determine the ability of an ecosystem to support a population.</li> <li>describe adaptations of plants and animals that allow them to thrive in different environments.</li> </ul>	<p>SI: 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18, 22 LS: 29, 27</p> <p>SE: 48</p>		<p>FOSS: Environments– Investigation 1 : Terrestrial Environments p. 16 24 (Recording Changes) FOSS Science Stories: <i>Terrestrial Environments Around the World</i> FOSS: Environments– Investigation 3:Water Tolerance p. 1 – 13 (Setting Up the Experiment) FOSS Science Stories: <i>Auntie’s Plants</i> Unit 5: LCC Activity</p>	<p>Harcourt Science – p 179, 160, 194-195, 176 - 183</p>
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>observe an aquarium environment over time and keep a record of changes in a journal.</li> <li>identify and monitor some of the environmental factors in a freshwater environment.</li> <li>relate the observed differences in the acidity of aquariums to the amount of carbon dioxide produced by the organisms in aquariums.</li> <li>describe adaptations of plants and animals that allow them to thrive in different environments.</li> <li>identify pollutants.</li> <li>illustrate possible point and non-point source contributions to pollution and natural or human-induced pathways of a pollutant in an ecosystem.</li> </ul>	<p>SI: 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18, 22</p> <p>LS: 19, 23, 24, 25, 28</p> <p>PS: 11, 12</p> <p>ESS: 34 SE: 48, 49, 50</p>	<p>Unit 4: Cells to Living Organisms Unit 5: Ecosystems FOSS Kit : Environments</p>	<p>FOSS: Environments– Investigation 3: Water Tolerance p. 14 - 17 (Observing Plants at Day 5 and Day 8) FOSS: Environments – Investigation 4: Aquatic Environments p. 1-23 (All Parts) FOSS Science Stories: <i>Aquatic Environments around the World</i> <i>Water Pollution: The Lake Erie Story</i> <i>Sources of Water Pollution</i> <i>What is an Ecosystem?</i> Activity – Resource Identification</p>	<p>Harcourt Science – p168 – 169, 194, 311</p> <p><a href="http://www.FOSSweb.com">www.FOSSweb.com</a></p>
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>observe and compare the hatching of brine shrimp eggs in four salt concentrations.</li> <li>determine the range of salt tolerance for brine shrimp hatching.</li> <li>draw conclusions about the salt conditions for brine shrimp hatching.</li> </ul>	<p>SI: 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18, 22</p> <p>LS: 18, 29</p> <p>SE: 48</p>			<p>FOSS: Environments– Investigation 3: Water Tolerance p. 18-24 (Observing Plants at Day 11) FOSS: Environments – Investigation 5: Brine Shrimp Hatching p. 1 – 18 (FOSS Science Stories: <i>Brine Shrimp</i> <i>The Mono Lake Story</i> Unit 4: LCC Activity 5: Frog Metamorphosis</p>

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Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>design an investigation to test the viability of brine shrimp eggs.</li> <li>observe and compare the effect of salinity on the germination and early growth of seeds.</li> <li>determine the salt tolerance for 4 types of plants.</li> </ul>	<p>SI: 3, 16, 17, 18, 19, 24, 32, 36</p>	<p>Unit 6: Earth: Its Lithosphere, Hydrosphere, and Atmosphere and Unit 7: Cycles and Climates FOSS Kit: Solar Energy</p>	<p>FOSS: Environments– Investigation 5: Brine Shrimp Hatching p. 19 – 20 (Determining Viability) FOSS Science Stories : <i>Shrimp Aquaculture</i> FOSS: Environments– Investigation 6: Salt of the Earth p. 1 – 17 (Setting Up the Experiment and Observing Plants) FOSS Science Stories: <i>Breeding Plants What Happens When Ecosystems Change? How Organisms Depend on Each Other</i></p>	<p>Harcourt Science – p. 184 – 199</p>
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>design an investigation,</li> <li>conduct a controlled experiment,</li> <li>present experimental results,</li> </ul>	<p>SI: 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18, 20, 22, 23, 25, 26, 27, 28, 30</p>		<p>FOSS: Environments– Investigation 6: Salt of the Earth p. 18 – 24 (Choosing Your Own Investigation)</p>	
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>observe and compare shadows during a school day.</li> <li>use a compass to orient the shadow tracker at each reading.</li> <li>relate the position of the Sun in the sky to the size and orientation of the shadow that is casts.</li> </ul>	<p>SI: 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18, 22 PS: 11, 13</p>	<p>Unit 6: Earth: Its Lithosphere, Hydrosphere, and Atmosphere and Unit 7: Cycles and Climates FOSS Kit: Solar Energy</p>	<p>FOSS: Solar Energy – Investigation 1: Sun Tracking p. 1- 24 (Shadow Play and Shadow Tracking) <a href="http://www.FOSSweb.com">www.FOSSweb.com</a> use the activity titled Resource Identification FOSS Science Stories: <i>The Sun shadows Building Time Devices Effects of the Sun</i></p>	<p><a href="http://www.FOSSweb.com">www.FOSSweb.com</a></p>
<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>become familiar with the thermometer as a tool to measure temperature in degrees Celsius.</li> <li>measure and compare temperatures in sun and shade.</li> <li>monitor the change in temperatures of wet and dry earth materials induced by solar radiation.</li> <li>relate the amount of change in temperatures of the earth materials to their properties.</li> </ul>	<p>SI: 3, 11, 13, 16, 19 ESS: 35, 36, 37, 46</p>	<p>Unit 6: Earth: Its Lithosphere, Hydrosphere, and Atmosphere and Unit 7: Cycles and Climates FOSS Kit: Solar Energy</p>	<p>FOSS: Solar Energy – Investigation 2: Heating the Earth p. 1 – 28 (Thermometer in Sun and Shade and Heating Earth Materials)  FOSS Science Stories: <i>Differential Heating The Pressure is On The Sun, the Ocean, and the Weather Predicting the Weather</i> Unit 7: LCC Activity 6</p>	<p>Harcourt Science p. 348 – 357;</p>

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<b>Students will:</b> <ul style="list-style-type: none"> <li>compare the effect of black and white collectors in solar water heaters.</li> <li>compare the temperature change in covered and uncovered solar water heaters.</li> <li>graph data to develop relationships between two variables.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18  <b>PS:</b> 1	<b>Unit 6: Earth: Its Lithosphere, Hydrosphere, and Atmosphere</b> <b>Unit 7: Cycles and Climates</b> <b>FOSS Kit: Solar Energy</b>	<b>FOSS: Solar Energy – Investigation 3: Solar Water Heaters</b> – p. 1 – 28 ( Color and Absorption and Surface-Area Effect)  <b>FOSS Science Stories: <i>Solar Technology Solar Cookers in Developing Countries</i></b> <i>Maria Telkes</i>	Harcourt Science – p.493 - 494
<b>Students will:</b> <ul style="list-style-type: none"> <li>construct model solar houses.</li> <li>conduct investigations to see how window exposure and interior color influence the air temperature.</li> <li>use information to build an efficient solar-heated model house and test its design.</li> <li>investigate insulation as a means of holding heat in a solar house.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 17, 18  <b>PS:</b> 1,14  <b>ESS:</b> 44, 45		<b>FOSS: Solar Energy – Investigation 4: Solar Houses</b> – p. 1 – 28 ( Solar-House Orientation and Solar-House Color, Hot-Air Challenges) <b>FOSS Science Stories: <i>Solar Power in Homes Solar Power from the Wind</i></b> <a href="http://www.FOSSweb.com">www.FOSSweb.com</a> Activity: Lunar Calendar	Harcourt Science – p.480 – 481, 494, 526
<b>Students will:</b> <ul style="list-style-type: none"> <li>use scientific thinking processes to conduct investigations and build explanations.</li> <li>identify the components of the hydrosphere.</li> <li>identify the atmosphere as a mixture of gases, water vapor, and particulate matter.</li> <li>describe the characteristics of the inner and outer planets.</li> <li>describe the water cycle and the nitrogen cycle.</li> </ul>	<b>SI:</b> 3, 11, 16, 19  <b>ESS:</b> 34, 35, 43, 45, 46, 51		<b>FOSS: Solar Energy – Investigation 4: Solar Energy</b> p. 29 – 36 (Choosing Your Own Investigation)  Assessment  Unit 6 – LCC Activity 9 LCC Activity 10 Math Problem of the Week – p. 34 – 35	Harcourt Science – p. 334 – 335; p. 418 – 421 <a href="http://www.kidzone.ws/W/ATER/">http://www.kidzone.ws/W/ATER/</a>  <a href="http://eo.ucar.edu/kids/green/cycles7.htm">http://eo.ucar.edu/kids/green/cycles7.htm</a>
<b>Students will:</b> <ul style="list-style-type: none"> <li>identify organic and inorganic matter in soil samples.</li> <li>identify common rocks and minerals and explain their uses and economic significance.</li> </ul>	<b>SI:</b> 6, 7, 10, 22, 23, 29  <b>ESS:</b> 30, 31		Unit 6 – LCC Activity 1 LCC Activity 2	Harcourt Science – p. 210 - 235
<b>Students will:</b> <ul style="list-style-type: none"> <li>create a three-dimensional model of their school area and make a map of the model.</li> <li>learn about models and maps as ways of representing landforms and human structures.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 18		<b>FOSS: Landforms – Investigation 1: Schoolyard Models</b> p. 8 – 28 (Schoolyard Models, View from Above, and Mapmaking)  <b>FOSS Science Stories: <i>Maps and How They are Made</i></b> <i>Ancient Maps</i>	

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Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
<b>Students will:</b> <ul style="list-style-type: none"> <li>investigate water flow over earth materials in a stream table.</li> <li>observe the processes of erosion, deposition, and stream flow.</li> <li>relate the processes they observe in the stream table to the processes that created the Grand Canyon.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 18  <b>ESS:</b> 32, 33, 38	<b>Unit 6: Earth: Its Lithosphere, Hydrosphere, and Atmosphere</b> <b>Unit 7: Cycles and Climates</b> <b>FOSS Kit: Solar Energy</b>	<b>FOSS:</b> Landforms – Investigation 2: Stream Tables – p. 1 – 24 (Erosion and Deposition)  Math Problem of the Week – p. 23  <b>FOSS Science Stories:</b> <i>Real People in the Grand Canyon</i>	Harcourt Science – p.276, 281
<b>Students will:</b> <ul style="list-style-type: none"> <li>investigate how slope of the land effects erosion and deposition</li> <li>investigate how a flood flow affects erosion and deposition</li> <li>design and conduct investigations to discover how changes humans make to stream channels affect stream processes</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 18  <b>ESS:</b> 32, 33, 38		<b>FOSS:</b> Landforms – Investigation 3: Go with the Flow – p. 1 – 28 (Slope, Flood, and Designing an Investigation)  <b>FOSS Science Stories:</b> <i>Rivers and Controlling the Flow</i>	Harcourt Science – p.282
<b>Students will:</b> <ul style="list-style-type: none"> <li>build a foam mountain model and compare it to a real mountain.</li> <li>draw a topographic map and a profile of the model mountain.</li> <li>relate topographic features to symbolic representations on maps.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 18  <b>ESS:</b> 21, 22, 32, 38		<b>FOSS:</b> Landforms – Investigation 4: Build a Mountain – p. 1 – 28 (Making a Topographic Map, Drawing a Profile, and FOSS Creek Map)  <b>FOSS Science Stories:</b> <i>The Story of Mount Shasta Topographic Maps Shapes of the Earth</i>	Harcourt Science – p.272 - 276
<b>Students will:</b> <ul style="list-style-type: none"> <li>observe and describe the types of information on a topographic map.</li> <li>compare the Mt. Shasta foam model to the U.S. Geological Survey map of Mt. Shasta.</li> <li>interpret images on an aerial photograph and compare them to landforms on a map.</li> <li>create a map of an area using aerial photograph and a grid.</li> </ul>	<b>SI:</b> 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 18  <b>ESS:</b> 21, 22, 32		<b>FOSS:</b> Landforms – Investigation 5: Bird's-Eye View – p. 1 – 26 (Mt. Shasta Topographic Map, Mt. Shasta Aerial Photos, and Death Valley and Grand Canyon Maps)  <b>FOSS Science Stories:</b> <i>Aerial Photography National Parks The Eye of the Needle</i> Module Assessment	

Note: Differentiated instruction activities for students who are advanced, Tier II, Tier III, or English Language Learners can be found in the wrap-around text of the Teacher’s Edition on the text pages indicated

Teaching Objectives	GLEs	LCC Unit	Recommended Activities	Suggested Resources
REVIEW FOR State Testing			Use Benchmark assessment results to determine focus areas.	
<b>Students will:</b> <ul style="list-style-type: none"> <li>identify the physical characteristics of the sun.</li> <li>describe the characteristics of the inner planets</li> <li>identify Earth's position in the solar system.</li> <li>differentiate among moons, asteroids, comets, meteoroids, meteors, and meteorites.</li> </ul>	<b>SI:</b> 3, 7,14, 15, 16,19, 22, 27, 30, 33  <b>ESS:</b> 42,43, 45	<b>Unit 8: Space</b>	Unit 8 : LCC Activity 1 LCC Activity 2 LCC Activity 3 LCC Activity 4 LCC Activity 5 LCC Activity 6 <i>Sun Facts and Stats BLM</i>	Harcourt Science p. 414 – 417  <i>Planetary Research BLM</i>  <i>Planet Comparison BLM</i>  <i>Pluto Opinionnaire BLM</i>
<b>Students will:</b> <ul style="list-style-type: none"> <li>estimate the range of time over which natural events occur.</li> <li>explain why the Sun, moon, and stars appear to move across the sky.</li> <li>explain rotation and revolution.</li> </ul>	<b>SI:</b> 7, 12, 15, 22  <b>ESS:</b> 38, 41, 44		Unit 8 : LCC Activity 7 LCC Activity 8	Harcourt Science – p. 400 – 405
<b>Students will:</b> <ul style="list-style-type: none"> <li>explain the importance of Polaris.</li> </ul>	<b>SI:</b> 12, 13, 22, 35, 38  <b>ESS:</b> 40		Unit 8 : LCC Activity 9	<a href="http://www.astronomy.com">www.astronomy.com</a>
<b>Students will:</b> <ul style="list-style-type: none"> <li>identify and explain advances in technology that have enabled the exploration of space.</li> </ul>	<b>SI:</b> 3, 19, 29, 30, 35,38, 39  <b>ESS:</b> 47		Unit 8 : LCC Activity 10 LCC Activity 11	Harcourt Science – p. 424 - 428
<b>Students will:</b> <ul style="list-style-type: none"> <li>review for exams</li> <li>pass exams</li> </ul>	All previous GLEs			

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