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<th>Month/SLEs</th>
<th>Content/Skills Vocabulary</th>
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<th>Lab Experiences</th>
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</tr>
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</table>
| **August** | *HW.9.2.1 Describe rules and consequences of choices*  
LS.2.2.5 identify the major parts and functions of the skeletal system  
PEL.2.1.2 Recognize the major bones in the skeletal system:  
- Cranium  
- Vertebrate  
- Ribs  
- Humerus  
- Radius  
- Ulna  
- Pelvis  
- Femur  
- Fibula  
- Tibia  
- phalanges  
NS.1.2.1 Communicate observations orally, in writing, and in graphic organizers: T-charts, pictographs, Venn diagrams, bar graphs  
NS.1.2.2 Develop questions that guide scientific inquiry  
NS1.2.8 Apply lab safety rules as they relate to specific science lab activities | *Inquiry Focus:* Locate  
*Vocabulary:* Skeleton  
Science Process Skills (These will be used and reinforced each month throughout the year.)  
- Observe  
- Compare  
- Classify  
- Sequence  
- Measure  
- Make and Use Models  
- Hypothesize  
- Infer  
- Draw Conclusions  
- Predict  
- Investigate and Experiment  
- Communicate  
Scientific Method (Science Inquiry will be used each month throughout the year.)  
Use tools to measure length, capacity, mass, temperature, and elapsed time. (Science tools will be used each month through the year.) | *What is the function of the skeletal system?*  
*HW.6.2.1 Compose a chart identifying the following systems:*  
- Digestive  
- Circulatory  
- Respiratory  
- Muscular  
- Skeletal  
- Nervous | Give students practice using the following science tools:  
- hand lens  
- magnifying box  
- forceps  
- measuring tools  
- dropper  
- balance  
Pel.3.2.1 Understand that the heart produces a pulse when beating | Give students frequent practice in asking questions that can be answered through inquiry. Allow them to develop a plan to answer their own questions.  
Lab Manual (LM) pp13-18  
Textbook pp 1-24 |
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<tr>
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</thead>
</table>
| September  | ESS8.2.5 Chart weather conditions everyday | Inquiry Focus:  
- classify | How does weather affect the way we live? | Illustrate three types of clouds and explain their formation. | Cloud in a Bottle activity. |
|            | ESS.8.2.6 Demonstrate safety procedures related to severe weather | Vocabulary:  
- cumulus  
- stratus  
- cirrus | How do clouds help predict the weather? | Compare the three forms of matter. | Cotton Ball Clouds  
The students will make a model of the three types of clouds using cotton balls. Label them. |
|            | ESS.8.2.7 Describe characteristics of cumulus, stratus, and cirrus clouds | PS.5.2.1 Classify objects based on two or more properties | Practice safety procedures related to severe weather. (tornado drill, lightning, etc) | | Trade Books  
The Cloud Book by Tomie de Paola  
It Looked Like Spilt Milk by Bernard Shaw  
Cloudy with a Chance of Meatballs by Judi Barrett |
|            | PS.5.2.1 Classify objects based on two or more properties | HW.11.2.10 Demonstrate procedures for obtaining emergency assistance and information | Daily Inquiry - Bean Sort or similar sorting activity. | | Add on to Calendar Math. Chart weather conditions every day, including temperature. (Celsius and Fahrenheit) |
|            | HW.11.2.10 Demonstrate procedures for obtaining emergency assistance and information | | Investigate: Kinds of matter p289 | | Harcourt Science Support for Arkansas SLE’s for science Lesson 7 pg. 22-26 |
|            | | | | | Textbook – Chapter 7  
Weather Lesson 1: How does weather change? Pp220-221  
Lesson 2: Why do we measure weather? Pp228-235  
Lesson 3: What is the water cycle? Pp236-242 |
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<tr>
<td>September</td>
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<td>Cloud in a Bottle</td>
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</tbody>
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**Cloud in a Bottle**

**Cotton Ball Clouds**

**Daily inquiry** - Classify objects into categories.

**Chapter 9**: Observing and classifying matter

**Lesson 1**: What is Matter?  
P288 - 295

**Lesson 2**: What are solids?  
p296 - 303

**Lesson 3**: What are liquids?  
p304 - 309

**Lesson 4**: What are gases?  
p310 - 315
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<tr>
<th>Month/SLEs October</th>
<th>Content/Skills Vocabulary</th>
<th>Essential Questions</th>
<th>Assessments Notebook Prompts</th>
<th>Lab Experiences</th>
<th>Strategies/Resources</th>
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</thead>
<tbody>
<tr>
<td>ESS.8.2.9 Read a Celsius thermometer</td>
<td>Inquiry Focus: • Contrast</td>
<td>Identify the relationship between the earth and the moon.</td>
<td>Why does the moon seem to change?</td>
<td>Chart the phases of the moon.</td>
<td>Textbook: Chapter 8</td>
</tr>
<tr>
<td>ESS.10.2.1 Illustrate four moon phases: • full • half • crescent • new</td>
<td>Vocabulary: • moon phases • orbit</td>
<td></td>
<td>Differentiate between Celsius and Fahrenheit.</td>
<td>Insta-lab Model Moon Phases</td>
<td>Lesson 3: Why does the moon seem to change? Pp264 – 269</td>
</tr>
<tr>
<td>ESS.10.2.2 Model the movement of Earth and its moon</td>
<td></td>
<td></td>
<td></td>
<td>LM p 82 Model how the moon orbits the earth</td>
<td>Insta-Lab Textbook p267 Model Moon Phases</td>
</tr>
<tr>
<td>ESS.10.2.3 Contrast the visibility of the sun and moon</td>
<td></td>
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<td></td>
<td>United Streaming Video: The Sky Above: A First Look (Watch part about the moon.)</td>
<td>Reading support and Homework p61</td>
</tr>
<tr>
<td>HW.9.2.4 Demonstrate methods of communication for specific situations</td>
<td></td>
<td></td>
<td></td>
<td>Lesson 2: What causes day and night? P258-263</td>
<td></td>
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<tr>
<td>PS.7.2.2 Compare temperatures using the Celsius scale</td>
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<td></td>
<td>LM p82 Model how the moon orbits the earth. Materials needed: 2 foam balls, craft sticks</td>
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<td>Month/SLEs November</td>
<td>Content/Skills</td>
<td>Essential Questions</td>
<td>Assessments Notebook Prompts</td>
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<tr>
<td>ESS.8.2.1 Conduct investigations to distinguish among the following components of soil:</td>
<td><strong>Inquiry Focus:</strong> recognize</td>
<td>Why is soil different from place to place?</td>
<td>Analyze the types of soil. Which type is best for plant growth? Explain your thoughts</td>
<td>Soil Lesson</td>
<td>Soil lesson</td>
</tr>
<tr>
<td>• clay</td>
<td><strong>Vocabulary:</strong></td>
<td></td>
<td></td>
<td></td>
<td>Soil data sheet</td>
</tr>
<tr>
<td>• sand</td>
<td>• properties</td>
<td></td>
<td></td>
<td></td>
<td>United Streaming video segment: Getting to Know Soil</td>
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<tr>
<td>• silt</td>
<td>• soil</td>
<td></td>
<td></td>
<td></td>
<td>Textbook: Chapter 5</td>
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<tr>
<td>• humus</td>
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<td>Soil teacher’s guide</td>
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<tr>
<td>ESS.8.2.2 Recognize and discuss the different properties of soil:</td>
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<tr>
<td>• color</td>
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<tr>
<td>• texture</td>
<td></td>
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<td>• ability to retain water</td>
<td></td>
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<td>• ability to support plant growth</td>
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<td>PS.7.2.2 Compare temperatures using the Celsius scale</td>
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<td>PEL.5.2.3 Cooperate with others to complete assigned task.</td>
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<td>NS.1.2.3 Conduct scientific investigations as a class and in teams</td>
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<td>NS.1.2.5 Collect measurable empirical evidence in teams and as individuals</td>
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<tr>
<td>December</td>
<td>PS.7.2.3 Demonstrate methods of using electricity to produce light, heat, and sound</td>
<td>Inquiry Focus: demonstrate</td>
<td>What is heat?</td>
<td>Explain the transfer of heat and how heat is measured</td>
<td><a href="http://www.hspscience.com">www.hspscience.com</a></td>
</tr>
<tr>
<td></td>
<td>NS.1.2.7 Use age appropriate equipment and tools in scientific investigations</td>
<td>Vocabulary: electricity</td>
<td></td>
<td></td>
<td>Just Passing Through</td>
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<td></td>
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<td></td>
<td></td>
<td>Textbook: Chapter 11 Lesson 1: What is Energy p356 – 365</td>
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<tr>
<td>January</td>
<td>PS.6.2.1 Investigate the relationship between force and motion</td>
<td><strong>Inquiry Focus:</strong> investigate</td>
<td><em>What is the relationship between force and motion?</em></td>
<td><strong>Balancing and Weighing</strong></td>
<td>Harcourt Science Level Readers: Motion (Below) On the move! (On) Easy does it! (Advanced)</td>
</tr>
<tr>
<td></td>
<td>PEL.1.2.8 Catch a ball overhand</td>
<td><strong>Vocabulary:</strong> force, motion</td>
<td></td>
<td><strong>Balancing and Weighing Teacher's guide – Lessons 1 – 16</strong></td>
<td>Balancing and Weighing Teacher’s Guide</td>
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<td>PEL.1.2.10 Step forward and strike a stationary object</td>
<td></td>
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<td>Science Module</td>
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<td>NS.1.2.4 Estimate and measure length and temperature using International System of Units (SI)</td>
<td></td>
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<td>Student Books (optional)</td>
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<tr>
<td></td>
<td></td>
<td>What is the relationship between force and motion?</td>
<td></td>
<td></td>
<td>Balance and Weighing Kit</td>
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<td>Month/SLEs</td>
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<td>February</td>
<td>PS.7.2.1 Classify materials as transparent, translucent, or opaque (e.g., plastic wrap, wax paper, and aluminum foil)</td>
<td>How can materials be classified?</td>
<td>Compare and contrast opaque and translucent.</td>
<td>Observe pictures of animals and classify.</td>
<td>Harcourt Science Level Readers: Living and Nonliving Things (Below)</td>
</tr>
<tr>
<td></td>
<td>LS.2.2.1 Classify animals into major groups according to their structure:</td>
<td>How can animals be classified?</td>
<td>Compare and contrast mammals and birds.</td>
<td>Animal Semantic Map</td>
<td>Living Things (On) Way to Grow! (Advanced)</td>
</tr>
<tr>
<td></td>
<td>- mammals</td>
<td></td>
<td></td>
<td>Observe pictures of animals to fill in chart.</td>
<td>Harcourt Science Support for Arkansas SLE’s for science Lesson 9, pg.32-34</td>
</tr>
<tr>
<td></td>
<td>- birds</td>
<td></td>
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<td></td>
<td>Lesson: The Animal Kingdom</td>
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<td></td>
<td>- fish</td>
<td></td>
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<td>Classification Chart</td>
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<td></td>
<td><strong>Inquiry Focus:</strong> classify</td>
<td></td>
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<td></td>
<td>Textbook: Chapter 2</td>
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<td></td>
<td><strong>Vocabulary:</strong></td>
<td></td>
<td></td>
<td></td>
<td>Lesson 1: What are mammals? What are Birds pg. 56-63</td>
</tr>
<tr>
<td></td>
<td>- vertebrate</td>
<td></td>
<td></td>
<td></td>
<td>Animal semantic map (keep to use for next lesson.)</td>
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<tr>
<td></td>
<td>- mammals</td>
<td></td>
<td></td>
<td></td>
<td>Lesson 2: What are reptiles, amphibians, and fish? Pg 64-71</td>
</tr>
<tr>
<td>Month/SLEs March</td>
<td>Content/Skills</td>
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| LS.2.2.2 Differentiate among herbivores, carnivores, and omnivores | Inquiry Focus: *illustrate*  
Vocabulary:  
- herbivore  
- carnivore  
- omnivore  
- embryonic | *Discuss the ways animals are classified.*  
What distinguishes embryonic development from incomplete metamorphosis?  
Compare and contrast herbivores/carnivores/omnivores. | Observe pictures of animal skulls. Looking at the teeth determine if herbivore, carnivore or omnivore.  
Observe the life cycle of the butterfly or tadpole. | Harcourt Science Level Readers:  
*Animals (Below)*  
*Animal Life cycles (On)*  
*Changing Shapes (Advanced)*  
What animals need  
Lesson 3: What are some animal life cycles?  
Butterfly larva/tadpoles |
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<tr>
<td>April</td>
<td>2nd Grade Science</td>
<td>Inquiry Focus: compare</td>
<td>How do the different parts of a plant help it to grow and reproduce?</td>
<td>Assessments</td>
<td>Lab Experiences</td>
</tr>
<tr>
<td>LS.2.2.6</td>
<td>Describe the function of the following plant parts:</td>
<td>Growing a Seed</td>
<td>Why is a cactus able to survive in the desert where there is little water?</td>
<td>Notebook Prompts</td>
<td>Strategies/Resources</td>
</tr>
<tr>
<td>leaves</td>
<td>▪ leaves</td>
<td>Prompt (if your school does not have a garden)</td>
<td>Use record data sheet to predict what will happen to the bean plant and what actually happens to the bean plant in different types of soil.</td>
<td>Prompt (if your school already has a garden)</td>
<td>Harcourt Science Level Readers:</td>
</tr>
<tr>
<td>stems</td>
<td>▪ stems</td>
<td>Choose a site at your school for a community garden. Write a letter to someone in your school community and explain why you chose that site.</td>
<td>Students may use a science notebook/journal to record the change in the bean plant daily.</td>
<td>Choose one of the issues that may affect your community garden:</td>
<td>Plants (Below)</td>
</tr>
<tr>
<td>flowers</td>
<td>▪ flowers</td>
<td>▪ Measure</td>
<td>▪ Measure</td>
<td>▪ Use and care of the garden</td>
<td>Plant Life Cycles (On)</td>
</tr>
<tr>
<td>roots</td>
<td>▪ roots</td>
<td>▪ Draw and label</td>
<td>▪ Draw and label</td>
<td>▪ Including the garden produce in school lunches</td>
<td>Surprises in Grandma’s Garden (Advanced)</td>
</tr>
<tr>
<td>LS.2.2.3</td>
<td>Identify basic needs of most plants:</td>
<td>▪ Describe</td>
<td>▪ Describe</td>
<td>▪ Vandalism</td>
<td>Natural Resources (Below)</td>
</tr>
<tr>
<td>nutrients</td>
<td>▪ nutrients</td>
<td></td>
<td></td>
<td>Another issue affecting your garden</td>
<td>Our Natural Resources (On)</td>
</tr>
<tr>
<td>water</td>
<td>▪ water</td>
<td></td>
<td></td>
<td></td>
<td>What do We Need? (Advanced)</td>
</tr>
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<td>light</td>
<td>▪ light</td>
<td></td>
<td></td>
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<td>Trade Books:</td>
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<tr>
<td>air</td>
<td>▪ air</td>
<td></td>
<td></td>
<td></td>
<td>One Bean by: Anne Rockwell</td>
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<tr>
<td>temperature</td>
<td>▪ temperature</td>
<td></td>
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<td>From Seed to Plant by: Gail Gibbons</td>
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<tr>
<td>space</td>
<td>▪ space</td>
<td></td>
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<td></td>
<td>Tops and Bottoms by Janet Stevens</td>
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<tr>
<td>LS.2.2.4</td>
<td>Compare different types of flowering plants and conifers</td>
<td>Optional Labs</td>
<td></td>
<td></td>
<td>Harcourt Science Support for Arkansas SLE’s for science Lesson 6 pg.20-21</td>
</tr>
<tr>
<td>ESS.8.2.4</td>
<td>Identify products derived from natural resources</td>
<td>Parts of a Plant: pg. LM 35 and LM 36 in Lab Manual.</td>
<td></td>
<td></td>
<td>Textbook: Chapter 3 Lessons 1-3</td>
</tr>
<tr>
<td>ESS.8.2.3</td>
<td>Conduct investigations to determine which soil best supports bean plant growth</td>
<td>Life Cycle of a Bean Plant: pg. LM 39 and LM 40 in Lab Manual.</td>
<td></td>
<td></td>
<td>Lab activity: Growing a Seed</td>
</tr>
<tr>
<td>HW.8.2.2</td>
<td>Identify sources of Pollution</td>
<td>Harcourt Investigate pg. 185 – ways we use water</td>
<td></td>
<td></td>
<td>Lab Manual: pgs. LM 35-36 and LM 39-40</td>
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<tr>
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<td>April</td>
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<td>Flowing plants and conifers may be researched on the internet if background information is needed. Harcourt Science chapter 6 lesson 1 – How can people use natural resources?</td>
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<tr>
<td>Month/SLEs May/June</td>
<td>Content/Skills</td>
<td>Essential Questions</td>
<td>Assessments Notebook Prompts</td>
<td>Lab Experiences</td>
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<tr>
<td>LS.4.2.1 Compare and contrast living and extinct species HW.7.2.1 Define disease</td>
<td>Inquiry Focus: contrast Vocabulary: • extinct • habitats</td>
<td>How can animals be classified?</td>
<td>Are all environments the same? Why or why not? Explain. What would happen if an animal were removed from its habitat and taken to a different one?</td>
<td>Harcourt Investigation p.119 – build a terrarium p. 127 – how color helps a butterfly</td>
<td>Harcourt Science Level Readers: Living Things in Their Environments (Below) Home Sweet Home (On) Helping Our World (Advanced) Harcourt Science Chapter 4 Lesson 1 – What is an Environment? Lesson 2 – How Do Living Things Survive in Different Places?</td>
</tr>
</tbody>
</table>