

| GRADE 3<br>SCIENCE ORDER OF INSTRUCTION   |   |  |   |
|---|---|--|---|
| 1 <sup>st</sup> Nine Weeks  | 2 <sup>nd</sup> Nine Weeks  | 3 <sup>rd</sup> Nine Weeks   | 4 <sup>th</sup> Nine Weeks  |
| <p><b><u>Body of Knowledge:</u></b><br/><b><u>Life Science</u></b><br/>(4 benchmarks)</p> <p>Big Idea 14: Organization and Development of Living Organisms</p> <p>Big Idea 15: Diversity and Evolution of Living Organisms</p>  | <p><b><u>Body of Knowledge:</u></b><br/><b><u>Life Science</u></b><br/>(2 benchmarks)</p> <p>Big Idea 17: Interdependence</p> <p><b><u>Body of Knowledge:</u></b><br/><b><u>Earth and Space Science</u></b><br/>(5 benchmarks)</p> <p>Big Idea 5: Earth in Space and Time</p> | <p><b><u>Body of Knowledge:</u></b><br/><b><u>Earth and Space Science</u></b><br/>(1 benchmark)</p> <p>Big Idea 6: Earth Structures</p> <p><b><u>Body of Knowledge:</u></b><br/><b><u>Physical Science</u></b><br/>(4 benchmarks)</p> <p>Big Idea 8: Properties of Matter</p> <p>Big Idea 9: Changes in Matter</p> | <p><b><u>Body of Knowledge:</u></b><br/><b><u>Physical Science</u></b><br/>(6 benchmarks)</p> <p>Big Idea 10: Forms of Energy</p> <p>Big Idea 11: Energy Transfer and Transformations</p> |
| <p><b><u>Big Idea 1: The Practice of Science and Big Idea 3: The Role of Theories, Laws, Hypotheses, and Models</u></b><br/>These Big Ideas should be introduced during the first nine weeks, and then embedded in all science lessons throughout the year as they blend easily with teaching inquiry and are the basis of an activity/lab-based science classroom. Third grade students ask and investigate questions individually and in teams, generate explanations, compare group observations, keep appropriate records, make inferences based on observations, and understand why and how scientists use models. Lab safety and the use of scientific tools should also be introduced at the beginning of the year and re-addressed throughout the year.</p> |   |  |   |

**Rationale for Grade 3 Order of Instruction:**

**1<sup>st</sup> Nine Weeks**

The 1<sup>st</sup> nine weeks continue to build upon the Life Science concepts students were taught at the end of second grade. They will be able to use their prior knowledge to delve more deeply into the study of the structures and characteristics of plants and animals.

**2<sup>nd</sup> Nine Weeks**

Life Science continues during the 2<sup>nd</sup> nine weeks as students investigate how animals and plants respond to changing seasons and how plants make their own food. Earth and Space Science is also taught during the 2<sup>nd</sup> nine weeks, and students will make observations of the night skies as seasons change.

**3<sup>rd</sup> Nine Weeks**

Earth and Space Science continues during the 3<sup>rd</sup> nine weeks. Physical Science is also taught during the 3<sup>rd</sup> nine weeks. Students will focus on challenging and abstract concepts about properties of matter and changes in matter.

**4<sup>th</sup> Nine Weeks**

Physical Science continues to be taught during the 4<sup>th</sup> nine weeks when students will focus on concepts about energy. These concepts require higher level thinking skills.



| <b>GRADE 3</b>   |  |
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| <b>BODY OF KNOWLEDGE: LIFE SCIENCE</b>   |  |
| <b>BIG IDEA 17: INTERDEPENDENCE</b>  |  |
| <p>A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs.</p> <p>B. Both human activities and natural events can have major impacts on the environment.</p> <p>C. Energy flows from the sun through producers to consumers.</p>   |  |
| <b>ESSENTIAL QUESTIONS</b>   |  |
| <p>How do the changing seasons affect plant and animal behavior?</p> <p>How do plants utilize the energy from the Sun?</p>   |  |
| <b>BENCHMARKS and TASK ANALYSES</b>  |  |
| <p><b>SC.3.L.17.1</b> Describe how animals and plants respond to changing seasons.<br/>The student:</p> <ul style="list-style-type: none"> <li>observes, records, and describes how animals and plants change during different seasons.</li> </ul> <p><b>SC.3.L.17.2</b> Recognize that plants use energy from the Sun, air, and water to make their own food.</p> |  |
| <b>OCPS ESSENTIAL LABS</b>   |  |
| <a href="http://www.science.ocps.net">www.science.ocps.net</a>   |  |
| How Do Seasonal Changes Affect Plants and Animals?   |  |
| <b>VOCABULARY</b>  |  |
| energy   |  |
| <p><b>The textbook is NOT the curriculum. The Next Generation Sunshine State Standards for Science are the mandated curriculum.</b></p>  |  |
| <b>SUPPORTING RESOURCES</b>  |  |
| <b>Formative Assessment Probes</b>   | <b>SC.3.L.17.1</b> Vol. 2: Habitat Change  |
| <b>Scott Foresman</b>  | <b>SC.3.E.17.1</b> 80-85<br><b>SC.3.E.17.2</b> 8-9, 106  |
| <b>AIMS</b><br><a href="http://www.aimsedu.org">www.aimsedu.org</a>  | <b>SC.3.L.17.2</b> <i>Primarily Plants</i> : Plants and Sunlight   |
| <b>Literature</b>  | <i>The Tiny Seed</i> , Eric Carle<br><i>Be A Friend to Trees</i> , Patricia Lauber<br><i>Our Tree Named Steve</i> , Alan Zweibel<br><i>Weird Friends</i> , Jose Aruego & Ariane Dewey  |
| <b>Web Links</b>   | <a href="http://www.school.eb.com/elementary/art-83788/">www.school.eb.com/elementary/art-83788/</a><br>To survive, plants must be able to adapt to seasonal and environmental changes.<br><a href="http://www.school.eb.com/elementary/art-68242">www.school.eb.com/elementary/art-68242</a><br>Some animals prepare for winter by stocking up on food, while others plan to sleep through the cold months.<br><a href="http://www.school.eb.com/elementary/article?articleId=353245">www.school.eb.com/elementary/article?articleId=353245</a><br>Hibernation is the way some animals deal with the harshness of winter. |
| <b>Field Experiences</b>   | Moss Park – (407) 254-6840   |
| <b>Other</b>   |  |



| <b>GRADE 3</b>   |   |
|--|---|
| <b>BODY OF KNOWLEDGE: EARTH AND SPACE SCIENCE</b>  |   |
| <b>BIG IDEA 5: EARTH IN SPACE AND TIME</b>   |   |
| Humans continue to explore Earth's place in space. Gravity and energy influence the formation of galaxies, including our own Milky Way Galaxy, stars, the Solar System, and Earth. Humankind's need to explore continues to lead to the development of knowledge and understanding of our Solar System.  |   |
| <b>ESSENTIAL QUESTIONS</b>   |   |
| Why don't all stars look alike?<br>How can we overcome the force of gravity?   |   |
| <b>BENCHMARKS and TASK ANALYSES</b>  |   |
| <b>SC.3.E.5.1</b> Explain that stars can be different; some are smaller, some are larger, and some appear brighter than others; all except the Sun are so far away that they look like points of light.<br>The student: <ul style="list-style-type: none"> <li>• understands that stars are different.</li> <li>• observes that there are stars in the sky that are different sizes.</li> <li>• identifies the Sun as a medium-sized star when compared to other stars.</li> <li>• recognizes that some stars appear brighter than others.</li> <li>• understands that stars are so far away that they look like points of light.</li> </ul> <b>SC.3.E.5.2</b> Identify the Sun as a star that emits energy; some of it in the form of light.<br><b>SC.3.E.5.3</b> Recognize that the Sun appears large and bright because it is the closest star to Earth.<br><b>SC.3.E.5.4</b> Explore the Law of Gravity by demonstrating that gravity is a force that can be overcome.<br><b>SC.3.E.5.5</b> Investigate that the number of stars that can be seen through telescopes is dramatically greater than those seen by the unaided eye. |   |
| <b>OCPS ESSENTIAL LABS</b>   |   |
| <a href="http://www.science.ocps.net">www.science.ocps.net</a>   |   |
| Stars are Different Sizes<br>Stars are Different Magnitudes<br>Number of Stars Seen Through a Telescope<br>Overcoming Gravity  |   |
| <b>VOCABULARY</b>  |   |
| star, telescope  |   |
| <b>The textbook is NOT the curriculum. The Next Generation Sunshine State Standards for Science are the mandated curriculum.</b>   |   |
| <b>SUPPORTING RESOURCES</b>  |   |
| <b>Formative Assessment Probes</b>   | <i>Uncovering Student Ideas in Science</i> , Page Keeley<br><b>SC.3.P.5.1</b> Vol. 2: Emmy's Moon & Stars   |
| <b>Scott Foresman</b>  | <b>SC.3.E.5.1</b> 454-455<br><b>SC.3.E.5.2</b> 454-455, 423<br><b>SC.3.E.5.3</b> 455<br><b>SC.3.E.5.4</b> 32, 350-351<br><b>SC.3.E.5.5</b> 436-437, 448 |
| <b>AIMS</b><br><a href="http://www.aimsedu.org">www.aimsedu.org</a>  |   |



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| <b>Literature</b>        | <i>How Many Stars in the Sky?</i> Lenny Hort  |
| <b>Web Links</b>         | <p><a href="http://www.school.eb.com/elementary/article?articleId=353824">www.school.eb.com/elementary/article?articleId=353824</a><br/>An encyclopedia article about the sun, its place in space and how it supplies most of Earth's energy</p> <p><a href="http://www.school.eb.com/art-82761">www.school.eb.com/art-82761</a><br/>The sun is a star, but it looks bigger and brighter than the others because it is the closest to us.</p> <p><a href="http://www.school.eb.com/elementary/article?articleId=353808">www.school.eb.com/elementary/article?articleId=353808</a><br/>An encyclopedia article discussing stars, what they are, where they come from, and how they are classified</p> <p><a href="http://ksnn.larc.nasa.gov/k2/s_whatGravity.html">http://ksnn.larc.nasa.gov/k2/s_whatGravity.html</a><br/>A video explaining gravity with accompanying activity to help students understand how gravity works</p> |
| <b>Field Experiences</b> | <p>Kennedy Space Center – (888) 838-8915</p> <p>Orlando Science Center Planetarium – (407) 514-2000</p>   |
| <b>Other</b>             |   |

