

**Portsmouth City School District
Lesson Plan Checklist**

Kindergarten Science Academic Content Standards

Standard 1	Standard 2	Standard 3
<i>Earth and Space Sciences</i>	<i>Life Sciences</i>	<i>Physical Sciences</i>
Benchmarks	Benchmarks	Benchmarks
<p>A. Observe constant and changing patterns of objects in the day and night sky.</p> <p>B. Explain that living things cause changes on Earth.</p> <p>C. Observe, describe and measure changes in the weather, both long term and short term.</p> <p>D. Describe what resources are and recognize some are limited but can be extended through recycling or decreased use.</p>	<p>A. Discover that there are living things, non-living things and pretend things, and describe the basic needs of living things (organisms).</p> <p>B. Explain how organisms function and interact with their physical environment.</p> <p>C. Describe similarities and differences that exist among individuals of the same kind of plants and animals.</p>	<p>A. Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.</p> <p>B. Recognize that light, sound and objects move in different ways.</p> <p>C. Recognize sources of energy and their uses.</p>
Grade Level Indicators	Grade Level Indicators	Grade Level Indicators
<p>1. Observe that the sun can be seen only in the daytime, but the moon can be seen sometimes at night and sometimes during the day.</p> <p>2. Explore that animals and plants sometimes cause changes to their surroundings.</p> <p>3. Explore that sometimes change is too fast to see and sometimes change is too slow to see.</p> <p>4. Observe and describe day-to-day weather changes (e.g., today is hot, yesterday we had rain).</p> <p>5. Observe and describe seasonal changes in weather.</p>	<p>1. Explore differences between living and non-living things (e.g., plant-rock).</p> <p>2. Discover that stories (e.g., cartoons, movies, comics) sometimes give plants and animals characteristics they really do not have (e.g., talking flowers).</p> <p>3. Describe how plants and animals usually resemble their parents.</p> <p>4. Investigate variations that exist among individuals of the same kind of plant or animal.</p> <p>5. Investigate observable features of plants and animals that help them living in different kinds of places.</p> <p>6. Investigate the habitats of many different kinds of local plants and animals and some of the ways in which animals depend on plants and each other in our community.</p>	<p>1. Demonstrate that objects are made of parts (e.g., toys, chairs).</p> <p>2. Examine and describe objects according to the materials that make up the object (e.g., wood, metal, plastic and cloth).</p> <p>3. Describe and sort objects by one or more properties (e.g., size, color and shape).</p> <p>4. Explore that things can be made to move in many different ways such as straight, zigzag, up and down, round and round, back and forth, or fast and slow.</p> <p>5. Investigate ways to change how something is moving (e.g., push, pull).</p>

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Standard 4	Standard 5	Standard 6
<i>Science and Technology</i>	<i>Scientific Inquiry</i>	<i>Scientific Ways of Knowing</i>
Benchmarks	Benchmarks	Benchmarks
<p>A. Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.</p> <p>B. Explain that to construct something requires planning, communication, problem solving and tools.</p>	<p>A. Ask a testable question.</p> <p>B. Design and conduct a simple investigation to explore a question.</p> <p>C. Gather and communicate information from careful observations and simple investigation through a variety of methods.</p>	<p>A. Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.</p> <p>B. Recognize the importance of respect for all living things.</p> <p>C. Recognize that diverse groups of people contribute to our understanding of the natural world.</p>
Grade Level Indicators	Grade Level Indicators	Grade Level Indicators
<p><u>1. Explore that objects can be sorted as “natural” or “man-made”.</u></p> <p><u>2. Explore that some materials can be used over and over again (e.g., plastic or glass containers, cardboard boxes and tubes).</u></p> <p><u>3. Explore that each kind of tool has an intended use, which can be helpful or harmful (e.g., scissors can be used to cut paper but they can also hurt you).</u></p>	<p><u>1. Ask “what if” questions.</u></p> <p><u>2. Explore and pursue student-generated “what if” questions.</u></p> <p><u>3. Use appropriate safety procedures when completing scientific investigations.</u></p> <p><u>4. Use the five senses to make observations about the natural world.</u></p> <p><u>5. Draw pictures that correctly portray features of the item being described.</u></p> <p><u>6. Recognize that numbers can be used to count a collection of things.</u></p> <p><u>7. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers and other appropriate tools).</u></p> <p><u>8. Measure the lengths of objects using non-standard methods of measurement (e.g., teddy bear counters and pennies).</u></p> <p><u>9. Make pictographs and use them to describe observations and draw conclusions.</u></p> <p><u>10. Make new observations when people give different descriptions for the same thing.</u></p>	<p><u>1. Recognize that scientific investigations involve asking open-ended questions (How?, What if?).</u></p> <p><u>2. Recognize that people are more likely to accept your ideas if you can give good reasons for them.</u></p> <p><u>3. Interact with living things and the environment in ways that promote respect.</u></p> <p><u>4. Demonstrate ways science is practiced by people everyday (children and adults).</u></p>