

### Kindergarten Science Instructional Focus / Toolkit

The Kindergarten Science Instructional Focus Toolkit has been created to assist teachers in identifying activities that are well aligned to the standards. This toolkit is not intended to replace your district’s curriculum or to be solely used to address the benchmarks. Care was given to identify multiple activities that could be executed via hands-on inquiry, virtually and in some cases infused with the literacy block.

Resources have been pulled from CPALMS. For all activities, a materials list resides on the first page once you click the link. There may be materials listed that are not accessible to you. Do not let this discourage you. There are talking points and alternative activities built within the resources. Again, the toolkit serves as a suggestion of activities that can be used to support your instruction and not be mistaken for your course description.

| Benchmark   | Verbiage | Instructional Guidance and Vocabulary   | Resources   |
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| <p>SC.K.L.14.1</p> <p>Recognize the five senses and related body parts.</p> |          | <p>Recognize there are body parts inside and outside of the body. Related body parts include: eyes, ears, nose, tongue, and skin.</p> | <p><a href="#"><u>Taste vs. Smell:</u></a> This activity allows students to practice observation by using their sense of taste and smell. Students are blindfolded and try to identify different foods first by taste while holding their nose and then again with the same foods, but not holding their nose. They chart and compare the differences.</p> <p><a href="#"><u>My Senses Tell Me...</u></a> This lesson encourages students to explore their environment using their senses, first in an open-ended way, and then in a more</p> |

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|  |  |  | <p>reflective way. Using student sheets to record their observations, students work in small groups at five "Sense Stations," where they document what they smell, taste, see, hear, and feel. Next, students are asked to be "sense detectives" at the sense stations and to document their clues on their student sheets. Students use these clues to write a "Sense Mystery."</p>   |
| <p>SC.K.L.14.2</p> <p>Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.</p> |  |  | <p><b><u>Plants and Animals in Media:</u></b><br/> These lessons show children how the media portrays plants and animals with characteristics that they do not truly possess in reality.</p> <p><b><u>Clown Fish:</u></b><br/> Students will compare and contrast traits of real clown fish and Nemo, from the cartoon movie "Finding Nemo".</p> <p><b><u>Real or Make-Believe?:</u></b><br/> How do you know if an animal is real or make-believe? What characteristics and behaviors do real animals possess? How does the media portray animals with characteristics they do not have in real life? Students will</p> |

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|  |  |   | encounter these questions as they explore the differences between real and make-believe animals. This lesson will help you to identify what characteristics and behaviors classify an animal as being real or make-believe.   |
| <p>SC.K.L.14.3</p> <p>Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.</p> |  | <p>Introduce comparing and contrasting plants and animals by observable physical characteristics and behaviors. Provide students with opportunities to make observations in classrooms and schoolyard environments.</p> | <p><b><u>Animal Diversity:</u></b> This lesson will motivate and guide student observations of animal and plant similarities, diversity, and appropriateness to live in different environments; to demonstrate that stories sometimes give plants and animals attributes that they don't really have.</p> <p><b><u>Investigating Local Ecosystems:</u></b> This lesson provides students with opportunities to investigate the habitats of local plants and animals and explore some of the ways animals depend on plants and each other.</p> |
| <p>SC.K.P.10.1</p> <p>Observe that things that make sound vibrate.</p>   |  |   | <p><b><u>Sound Makers:</u></b> This inquiry activity involves students building a working model to help them understand that sound is made from vibrations.</p>   |

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|  |  |  | <p><b><u>Exploring Instruments in Kindergarten:</u></b> This lesson allows students to explore a variety of musical instruments. This is a hands-on activity allowing students to discover the differences in sounds made by different instruments. Students will also gain practice in recording their observations in their science notebooks.</p> <p><b><u>Did You Hear That?:</u></b> This lesson focuses on different sound qualities and being able to distinguish the different qualities. This lesson explains how vibrations cause sound to be produced. How sound travels is also explored during this lesson. These concepts are explored while children solve an engineering design challenge through guided inquiry.</p> |
| <p>SC.K.P.12.1</p> <p>Investigate that things move in different ways, such as fast, slow, etc.</p> |  |  | <p><b><u>How and Where Things Move:</u></b> Students explore a variety of objects to discover the many ways the objects move-up and down, straight line, in circles, back and forth. They will discover that a force (push or pull) makes it move.</p>  |

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| <p>SC.K.P.13.1</p> <p>Observe that a push or a pull can change the way an object is moving.</p>   |  |   | <p><b>All About Motion:</b> Students will observe and discuss motion in learning stations or in demonstration. They will observe and discuss how a push or pull affects motion.</p>   |
| <p>SC.K.P.8.1</p> <p>Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.</p> |  | <p>The concepts of mass and weight are complicated and potentially confusing to elementary students. Hence, the more familiar term of "weight" is recommended for use to stand for both mass and weight in grades K-5.</p> <p>Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. Note: Limit category counts to be less than or equal to 10.</p> | <p><b>Finding the One!!:</b> Students will sort and classify rocks by observable properties, such as size, shape, color and texture. (The properties of temperature and weight are not addressed in this lesson).</p> <p><b>Observable Properties of Matter:</b> Students will sort objects according to their observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.</p> |
| <p>SC.K.P.9.1</p> <p>Recognize that the shape of materials such as paper and clay can be changed by cutting, tearing, crumpling, smashing, or rolling.</p>  |  | <p>Clarification for grades K-5: The target understanding for students in the elementary grades should focus on Big Ideas A and B.</p>  | <p><b>The Paper Change:</b> In this science-integrated reading lesson, kindergarten students will learn about physical changes to matter. Students will then create an informational text recording their observation of changing the</p>   |

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|   |  | <p>A. Matter can undergo a variety of changes.</p> <p>B. Matter can be changed physically or chemically.</p> | <p>physical properties of an object of their own choosing.</p>   |
| <p>SC.K.E.5.1</p> <p>Explore the Law of Gravity by investigating how objects are pulled toward the ground unless something holds them up.</p> |  |  | <p><b><u>Look Out Below!</u></b><br/> In this lesson students explore the force of gravity by testing gravity's pull with parachutes. The students will investigate the idea of gravity pulling objects to the ground unless something holds it up.</p>  |
| <p>SC.K.E.5.2</p> <p>Recognize the repeating pattern of day and night.</p>  |  |  | <p><b><u>Daytime and Nighttime:</u></b><br/> Look at the daytime and nighttime and what makes each time special as you complete this interactive tutorial.</p> <p><b><u>Sun and Moon   Day and Night:</u></b><br/> In this unit, students record observations of the day and night sky over weeks or a month. Discussions around the observations are intended to help students recognize the patterns in their observations. Literature connections are included.</p> |

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| <p>SC.K.E.5.3</p> <p>Recognize that the Sun can only be seen in the daytime.</p>                            |  |  | <p><b>Objects in the sky:</b> Students will observe objects in the sky during the daytime and at nighttime. Students will then complete a Venn diagram comparing objects that are seen at night, in the daytime, and during both day and night.</p>  |
| <p>SC.K.E.5.4</p> <p>Observe that sometimes the Moon can be seen at night and sometimes during the day.</p> |  |  | <p><b>Moon Walk:</b><br/>In this lesson, students will observe the daytime sky to determine if the moon can be seen during the day. Students will record their daily observations for one week. Students will complete a Venn diagram illustrating objects seen in the daytime sky, nighttime sky, and both.</p> |
| <p>SC.K.E.5.5</p> <p>Observe that things can be big and things can be small as seen from Earth.</p>         |  |  | <p><b>Big Small Near Far:</b><br/>In this lesson, students explore and measure objects near and far to determine that objects appear to be smaller when they are further away from us, but, when measured are not changing size.</p>   |
| <p>SC.K.E.5.6</p>   |  |  | <p>See SC.K.5.6</p>  |

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| <p>Observe that some objects are far away and some are nearby as seen from Earth.</p> |  |  |  |
| <p>SC.K.N.1.1<br/>Collaborate with a partner to collect information.</p>              |  | <p>Florida Standards Connections:<br/>LAFS.KS.1.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.</p> | <p><b>Bubble Baffle:</b><br/>This lesson provides students an opportunity recognizing the properties of objects and how objects move as well as working collaboratively to solve an engineering design challenge. This lesson is not the first introduction to sorting objects by their properties and observing how objects move, but a way for children to apply the concept in a more in-depth manner.</p> <p><b>FLINKERS:</b> In this activity students attempt to make a "flinker". A "flinker" is something that you put in a pitcher of water that doesn't float on the top or sink to the bottom, but just flinks in the middle of the water. Students explore the Big Idea of Properties of Matter by observing and investigating objects that sink, float, or flink.</p> |
| <p>SC.K.N.1.2</p>   |  | <p>Florida Standards Connections:<br/>LAFS.K.W.3.8. With guidance and</p>  | <p><b>Investigating Local Ecosystems:</b><br/>This lesson provides students</p>  |



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| <p>Make observations of the natural world and know that they are descriptors collected using the five senses.</p> |  | <p>support from adults, recall information from experiences or gather information experiences or gather information from provided sources to answer a question.</p> | <p>with opportunities to investigate the habitats of local plants and animals and explore some of the ways animals depend on plants and each other.</p> <p><b><u>Backyard Science</u></b>...The Five Senses: This lesson uses centers to reinforce the five senses incorporating backyard science in the wonderful world of nature.</p>   |
| <p>SC.K.N.1.3</p> <p>Keep records as appropriate -- such as pictorial records -- of investigations conducted.</p> |  |   | <p><b><u>Kindergarten Listening Walk:</u></b> Students will record what they hear on a nature walk. They will learn that sounds are all around us and that they are made by vibrations.</p> <p><b><u>Does Your Nose Know?:</u></b> How does our sense of smell help us process new information and develop understanding of the world around us? What body part correlates to our sense of smell? How do we use our sense of smell along with many other senses to process or recall information? Students will encounter these questions as they explore their sense of smell. This lesson will help students to</p> |

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|  |  |  | identify how they use their sense of smell to help them understand the world around them.   |
| SC.K.N.1.4<br>Observe and create a visual representation of an object which includes its major features. |  |  | <p><b><u>A Home for All:</u></b><br/>This unit opens with a walking field trip to a local community pond. In this Project-Based Learning experience students explore their local environment and describe the different habitats for plants and animals. The class will create a KWL Chart and Word Web for habitats. Individually, students will write an informative report about a chosen animal and its habitat. As teams, students will sort and present animal/plant cards according to their given habitat/environment. Students will individually create and present a habitat using a diorama for a chosen plant/animal.</p> <p><b><u>Go Fish!</u></b>: This lesson will guide students in understanding how models can help us understand real-world objects. Students will learn about fish features, observe real fish, and create a model of a fish.</p> |

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|   |  |   | <p><b><u>Is it a Plant?:</u></b><br/> How do you know if an object is a plant or not? What are the major parts of a plant? Are plants living things? Student will encounter these questions and more as they identify and explore the different parts of a plant. This lesson will help students identify different types of plants as well as the major parts of a plant.</p>  |
| <p>SC.K.N.1.5<br/> Recognize that learning can come from careful observation.</p> |  | <p>Florida Standards Connections:<br/> MAFS.K12.MP.5: Use appropriate tools strategically; and,<br/> MAFS.K12.MP.6: Attend precision.</p> | <p><b><u>Light and Dark:</u></b><br/> This resource will help you identify different light sources. You will recognize that some sources of light are natural and some are man-made. This virtual manipulative will also show you that light sources vary in brightness.</p> <p><b><u>Butterfly Life Cycle:</u></b> Biography of a Caterpillar : Students observe and write about the life cycle of a caterpillar. A K-W-L chart is utilized to begin discussion, as well as Eric Carle's The Very Hungry Caterpillar.</p> <p><b><u>Nature Journaling:</u></b> This is a detailed lesson plan for</p> |

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|  |  |  | <p>introducing the importance of detail accuracy through nature journaling. Students will find a leaf, flower and insect to draw in their nature journals. From this lesson the students will conclude that it is important to pay attention to detail when observing and identifying objects in nature.</p> |
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