

*Suggested Supplementary Activities from MDE Companion Document – Grade K*

Kit A	Engage (To capture students' interest)	Explore (To provide hands-on experiences to use later to formally introduce a concept, process, or skill)	Explain (To allow learners to state their ideas in their own words, listen to one another, correct misconceptions, and introduce vocabulary)	Elaborate (To correct remaining misconceptions, apply and extend to new situations, resulting in a deeper understanding)	Evaluate (To assess understanding of concepts and proficiency with skills)
<p><b>Unit:</b> <b>Observations with Senses</b></p> <p><b>Big Ideas (Key Concepts)</b></p> <ul style="list-style-type: none"> <li>• The five senses are sight, sound, touch, smell and taste</li> <li>• The senses aid in observation that helps us to understand our surroundings</li> </ul>	<ul style="list-style-type: none"> <li>• Take a walk outside to make purposeful observations. Have them focus on their senses. What do you hear, smell, feel, or see?</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>• Set up science exploration centers with activities that explore the senses.</li> <li>• Give students materials that have various attributes to sort.</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>• With the whole group, share students' ideas for sorting objects.</li> <li>• Show students how to use a graphic organizer or a Venn diagram to record how they sort objects.</li> </ul> <p><b>*Refer to companion document for more explanation activities.</b></p>	<ul style="list-style-type: none"> <li>• Elaborate on observations with senses by introducing observation tools.</li> <li>• Discuss with the children the size of objects: such as near and far away.</li> <li>• Have them draw pictures to show the difference.</li> </ul> <p><b>*Refer to companion document for more elaborate and apply ideas.</b></p>	<p><b>Formative</b></p> <ul style="list-style-type: none"> <li>• Evaluate students' use of terms and knowledge of all five senses.</li> <li>• Evaluate students' ability to sort and describe the attribute used to sort objects.</li> </ul> <p><b>Summative</b></p> <ul style="list-style-type: none"> <li>• Which sense do you use to identify the color and size of a Teddy Bear? (sight)</li> <li>• Ask a similar question for each of the senses.</li> </ul> <p><b>*Refer to companion document for more formative (embedded) and summative ideas.</b></p>

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<b>Kit B</b>	<b>Engage</b> (To capture students' interest)	<b>Explore</b> (To provide hands-on experiences to use later to formally introduce a concept, process, or skill)	<b>Explain</b> (To allow learners to state their ideas in their own words, listen to one another, correct misconceptions, and introduce vocabulary)	<b>Elaborate</b> (To correct remaining misconceptions, apply and extend to new situations, resulting in a deeper understanding)	<b>Evaluate</b> (To assess understanding of concepts and proficiency with skills)
<p><b>Unit: Basic Needs of Living Things</b></p> <p><b>Big Ideas (Key Concepts)</b></p> <ul style="list-style-type: none"> <li>All living things have basic needs (air, water, food and space).</li> <li>Nonliving things do not have these basic needs.</li> </ul>	<ul style="list-style-type: none"> <li>Students will set up a habitat to include living and nonliving organisms, for example: in a terrarium with soil, seeds, worms, rocks, and bark.</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>Plant experiments may be done concurrently (for example –watering one seed and not another, or putting some in the dark and some in the light, etc.)</li> <li>Students will observe the habitat over time, taking class notes/pictures/journal entries, on any changes that they see over the course of the unit.</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>Living things have needs that sustain them and nonliving things do not.</li> <li>Identify living and nonliving things in the habitat. Students identify the needs of living things.</li> <li>Make a T-chart to help organize the living and nonliving characteristics.</li> </ul> <p><b>*Refer to companion document for more explanation activities.</b></p>	<ul style="list-style-type: none"> <li>Address the misconception that seeds need sunlight to sprout and grow.</li> <li>Discuss the results of seeds in the light and seeds in the dark and how seeds do not get direct sunlight when planted in the ground.</li> <li>Determine if other living things would be able to survive in our classroom habitat and what may be the limiting factors.</li> </ul> <p><b>*Refer to companion document for more elaborate and apply ideas.</b></p>	<p><b>Formative</b></p> <ul style="list-style-type: none"> <li>Check student observation/pictures/journal entries to determine if observations are appropriate/applicable.</li> <li>Student conversations in their groups can be used as basis for monitoring understanding.</li> </ul> <p><b>Summative</b></p> <ul style="list-style-type: none"> <li>Circle the living things.</li> <li>Circle the needs of living things.</li> <li>Choose the thing that is not alive.</li> <li>Choose the thing that does not use food.</li> <li>Choose the thing that does not need air.</li> </ul> <p><b>*Refer to companion document for more formative (embedded) and summative ideas.</b></p>

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<b>Kit C</b>	<b>Engage</b> (To capture students' interest)	<b>Explore</b> (To provide hands-on experiences to use later to formally introduce a concept, process, or skill)	<b>Explain</b> (To allow learners to state their ideas in their own words, listen to one another, correct misconceptions, and introduce vocabulary)	<b>Elaborate</b> (To correct remaining misconceptions, apply and extend to new situations, resulting in a deeper understanding)	<b>Evaluate</b> (To assess understanding of concepts and proficiency with skills)
<p><b>Unit: My Earth</b></p> <p><b>Big Ideas (Key Concepts)</b></p> <ul style="list-style-type: none"> <li>The Earth is made of materials (rocks, sand, soil, and water) that have many different properties</li> </ul>	<ul style="list-style-type: none"> <li>Go on a class rock hunt and ask students to collect samples of rocks for a class collection. (possible field trip to quarry)</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>Engage student thinking by finding evidence that the Earth is made up of water and land.</li> <li>Students use observations of class rock collections to generate questions about earth materials.</li> <li>Students observe, sort, illustrate and describe rocks using different properties. (size, shape, color, texture, lighter and heavier, sink/float)</li> <li>Students plan and conduct investigations on the properties of sand, soil and rocks.</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>Students use observations from investigations to share their findings and define the terms sand, soil and rock.</li> <li>Students describe and compare the results when water is mixed with different earth materials.</li> <li>Students identify earth materials in pictures of different landscapes (desert, forest, beach, etc.) and classify them as soil, rocks, sand or water.</li> </ul> <p><b>*Refer to companion document for more explanation activities.</b></p>	<ul style="list-style-type: none"> <li>Students plan and conduct plant growth investigations in different earth materials (sand, soil, water). Observations should consist of simple descriptions using student vocabulary.</li> <li>Students gather information about earth materials from picture books and videos.</li> </ul> <p><b>*Refer to companion document for more elaborate and apply ideas.</b></p>	<p><b>Formative</b></p> <ul style="list-style-type: none"> <li>Student investigations and explanations of earth materials.</li> </ul> <p><b>Summative</b> Examples:</p> <ul style="list-style-type: none"> <li>Circle the earth material with the smallest parts.</li> <li>Circle the object that would not be a part of soil.</li> <li>Circle the object in the picture made from earth materials.(Picture of a landscape)</li> <li>Circle the place on the map that is made of water.</li> <li>Circle the object that is not an earth material.</li> </ul> <p><b>*Refer to companion document for more formative (embedded) and summative ideas.</b></p>

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<p><b>Unit: Pushes and Pulls</b></p> <p><b>Big Ideas (Key Concepts)</b></p> <ul style="list-style-type: none"> <li>The position of the observer and object affect the description of motion</li> <li>Pushes and pulls are forces that make objects move</li> <li>Motion is affected by the shape and weight of an object</li> <li>Objects fall down</li> </ul>	<ul style="list-style-type: none"> <li>Explore the motion of different objects that roll and slide.</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>Observe common objects and brainstorm ways to describe the motion of the object.</li> <li>Encourage students to ask <i>what would happen if...</i> questions as they explore the motion of the objects.</li> <li>Ask students to describe the motion of objects from his or her position. Is the object moving away from you? Is the object moving toward you?</li> </ul> <p><b>*Refer to companion document for more engage and explore ideas.</b></p>	<ul style="list-style-type: none"> <li>Ask students for ideas of how they could organize their observations into a chart.</li> <li>Discuss the description of the path the object traveled. Ask students to stand in different positions around the room and roll a ball or object across the room.</li> <li>Ask students what started the objects moving. Write the terms push and pull on the board or chart paper. Discuss the meaning of the terms. Ask students to demonstrate a push and a pull.</li> <li>Brainstorm examples of objects that require a push or a pull.</li> </ul> <p><b>*Refer to companion document for more explanation activities.</b></p>	<ul style="list-style-type: none"> <li>Continue student exploration into the path of moving objects and describing motion. Give students sufficient time to conduct simple investigations into the motion of objects down the ramps. Tell students that gravity is a force that pulls objects toward the Earth.</li> <li>Give students the opportunity to demonstrate how things fall down. Students explore different size, shape, and mass of objects and observe and describe the path of motion as the objects fall down.</li> </ul> <p><b>*Refer to companion document for more elaborate and apply ideas.</b></p>	<p><b>Formative</b></p> <ul style="list-style-type: none"> <li>Use the class discussion and class chart to assess the students' ability to describe motion.</li> </ul> <p><b>Summative</b></p> <ul style="list-style-type: none"> <li>Circle the pictures that demonstrate a push.</li> <li>Place an X on the pictures that demonstrate a pull.</li> <li>Circle the word that best describes the position of the ball.</li> <li>Draw an arrow that shows the path the ball will fall.</li> </ul> <p><b>*Refer to companion document for more formative (embedded) and summative ideas.</b></p>