Suggested Supplementary Activities from MDE Companion Document - Grade 1

Kit B (The "Weather" and "The Sun Warms The Earth" units are to be completed during the same trimester.)	**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.)
Unit: Weather **Big Ideas (Key Concepts):** • Weather exhibits short and long term patterns. • Tools can be used to assist the recording and predicting of weather.	• Take the class outside to make weather observations using their senses. Engage the students in a talk about what the weather is like today and what it was like yesterday. Ask them how meteorologists know what the weather will be like tomorrow. • Set up a table or center with weather instruments including thermometers, rain gauges, pictures of rain gauges, wind vanes, wind socks, and weather events (clouds, rain, clear, snow, etc.) Give students opportunities to explore and ask questions. ***Refer to companion document for more engage ideas (engage section).**	• Give students opportunities to practice using the thermometers. Let them take temperature measurements inside & outside the classroom. They can place thermometers in bowls of various temperatures of water, in cups of snow, outdoors in sand or soil. Students can place thermometers in bowls of "oatmeal/ porridge" to make a connection to the story of *Goldilocks & the Three Bears.* • Let students make some simple weather instruments; i.e., rain gauges & wind socks or wind vane. Ideas for constructing these can be found in children's books or on weather for kids Internet sites. Give children opportunities to use wind vanes, wind-socks, & rain gauges to measure wind & precipitation. ***Refer to companion document for more explore ideas (in explain section).**	• In a whole group setting, students discuss what they observed when they explored the weather instruments on the table or at the learning center. Ask students how they think meteorologists use the instruments. • Read picture books that explain concepts about weather and how scientists use tools to measure weather data. Compare their ideas to the scientific ones. ***Refer to companion document for more explain ideas (in explain section).**	• Discuss the collection of temperature, wind, cloud cover & precipitation amounts with the weather tools. Better procedures for collecting weather will develop over time if children are allowed to make mistakes and then these are discussed in class for a whole group evaluation. • Teach students how to make a pictograph of their recorded data. At the end of a week or month of data collecting, make a graph and save. Make comparisons between weeks and months. Which month had the most sunny, rainy, or cloudy days? Which month had the fewest? Which month was the sunniest, cloudiest, or rainiest? How many big snowfalls were there during the winter months? What was the total amount of snow that fell in each storm? What was the total amount of rain or snow for a particular month? Which month was the snowiest? Keep these graphs and charts for comparisons over time. ***Refer to companion document for more elaborate ideas (in elaborate section).**	**Formative:** • Observe students as they use the weather tools for their ability to make accurate measurements. • Evaluate the students' ability to make accurate comparisons. (i.e. there were 4 more sunny days in March than in April. There were ten fewer inches of snow in January than in February.) • Evaluate students' ability to use the weather vocabulary correctly & relate the weather instrument with the correct weather event. **Summative:** • Circle the instrument that is used to measure the wind. • Put an X on the instrument that is used to measure the amount of rain that falls. • (Show pictures of two thermometers with different readings-cold/ hot). Which thermometer measured something that was hot? ***Refer to companion document for more evaluate ideas (in evaluation section).**