

Rigorous Curriculum Design Unit Planning Organizer

Subject(s)	Earth Systems, Structures and Processes
Grade/Course	5 th
Unit of Study	Weather Patterns and Phenomena
Unit Type(s)	Skills Based

Priority Essential Standards

5.E.1.1 Understanding weather patterns and phenomena, making connections to the weather in a particular place and time.

“UNWRAPPED” Priority Standards

Understand daily weather patterns and collection of weather data.

“Unwrapped” Concepts (students need to know)	“Unwrapped” Skills (students need to be able to do)	Bloom’s Taxonomy Levels
The daily and seasonal changes in weather and patterns.	Compare wind speed, wind direction, precipitation and temperature daily.	Understand
How weather data is collected.	Collect data about upcoming weather events from observation and measurements.	Applying
What the jet stream is and how water currents influence the local weather daily	Explain how global patterns, (jet stream and water currents), influence local weather in measurable terms.	Analyze/ Evaluate

Essential Questions	Corresponding Big Ideas
<p>What causes daily and seasonal weather?</p> <p>How are daily and seasonal changes in weather interconnected?</p> <p>How do global factors influence local weather conditions?</p> <p>In what ways do weather conditions in one area or region influence the weather conditions in another area or region?</p> <p>What factors influence weather and climate on a global scale?</p> <p>How are weather and climate interconnected?</p>	<p>Patterns</p> <p>Stability and Change</p> <p>Systems and system models</p> <p>Energy and Matter</p>

Standardized Assessment Correlations (State, College and Career)	
State Essential Standards Computerized Test	
Unit Assessments	
Pre-Assessment	Informal Progress Monitoring Checks
<p>http://elementaryscience.cmswiki.wikispaces.net/file/view/ASSESSMENT_QUESTIONS_Weather.doc</p> <p>Pre and Post test on weather.</p>	<p>The “Water Cycle Baggie” will be assessed by looking at completing the bag, proper labeling, and teacher observation.</p> <p>Weather instruments will be assessed for completion and will be used for collection of weather data.</p> <p>The water cycle poster will be assessed after completion for accuracy of labeling, coloring, and correct organization of the cycle.</p>

Engaging Learning Experiences	
Learning Activities Using Text or Program	Authentic Performance Tasks
<ul style="list-style-type: none"> • Water Cycle in a Baggie <p>Insert a picture of the water cycle (with clouds, precipitation, evaporation, and a water area –like a pond) into a gallon-size ziplock baggie. Use a sharpie pen to trace the picture of the water cycle onto the outside of the baggie. Let dry. Add pebbles, sand/soil, and water to the proper level according to the drawing. Hang bags in the window and have students make observations over a period of time. It is a good idea to put some bags in a shadier area to observe the differences. [Purpose is to create a small scale model of the water cycle.]</p> <ul style="list-style-type: none"> • Students will create handmade weather tools from using the following website: <p>http://www.weatherwizkids.com/weather-experiments.htm The instructions are explicit and clear under each web link. (Making a rain gauge) http://www.weatherwizkids.com/experiments-rain-gauge.htm</p> <p>(Making a barometer) http://www.weatherwizkids.com/experiments-barometer.htm</p> <p>(Making a anemometer) http://www.weatherwizkids.com/experiments-anemometer.htm</p> <p>(Making a thermometer) http://www.weatherwizkids.com/experiments-thermometer.htm</p> <ul style="list-style-type: none"> • Movie on the Jet stream http://www.qwiki.com/q/#!/Jet_stream <p>Introduce the jet stream to the students by watching the short video of how the jet stream effects our daily weather.</p>	<ul style="list-style-type: none"> • Each student will draw the water cycle, explaining the different stages. After the poster is completed, they will present their poster to the class. • Students, after creating tools, will demonstrate how to use their weather instruments for observation and data collection. • After watching the video, has each student share with their "shoulder buddy" what they learned about the jet stream and how it relates to our weather daily.

Unit Vocabulary Terms		Enrichment / Extension	Interdisciplinary Connections
<p>“Unwrapped” Priority Standards Concepts</p>	<p>Supporting Standards Concepts and Other Unit- Specific Terms</p>	<p>- Cloud classification and formation - discussion of latitude and longitude</p>	
<p>precipitation evaporation condensation Jet stream Gulf stream temperature air pressure humidity latitude / longitude hemisphere thermometer barometer anemometer wind vane rain gauge</p>			