

# Unit 3: Weather Watch

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Assignment 3-3 Choice Board

### How can I observe and explain the weather?

#### Instructions

1. Your task is to complete the choice board below. Choose and complete three items in one row. For example, Row 1, Row 2, or Row 3.

Weather Watch Choice Board			
Row 1	<b>Observe and Explain</b>  Explain how the water cycle works. Your explanation should include a diagram or a picture of a model.  To make a model for example, you may use a wide mouthed container, a tin foil pan, a glass of hot water, and ice cubes. <ul style="list-style-type: none"><li>• pour the hot water into the wide-mouthed container</li><li>• place the tin foil pan over the mouth of the container</li><li>• add the ice</li></ul>	<b>Apply and Explain</b>  How are weather systems generated on earth? What principles affect weather systems such as air pressure, temperature, sea level, wind, and humidity. Explain.	<b>Experiment and Design</b>  Cold wind can steal body heat quickly.  The amount of wind resistance fabrics have can vary greatly, from blocking a stiff gust to hardly stopping a light breeze.  Design an experiment to test the wind resistance of a piece of fabric.  Be sure to include some background information on wind resistance, a hypothesis, materials, procedures, and possible observations and a conclusion.

	<p>cubes to the pan</p> <ul style="list-style-type: none"> <li>• observe what happens</li> </ul>		
<b>Row 2</b>	<p><b>Observe and Record</b></p> <p>Observe the cloud formations out of doors over several days. Draw the cloud formations you see. Keep a record of what the weather was like for that day. Identify the cloud types that most resemble your drawings (cirrus, stratus, cumulus).</p>	<p><b>Apply and Explain</b></p> <p>Describe the effects of the Sun's energy on daily (24 hours) and seasonal (12 months of the year) changes in temperature.</p>	<p><b>Observe and Measure</b></p> <p>Monitor your local weather over a 5 day period using the instruments you have at home (rain gauge, barometer, weather vane etc.). Keep a record of your results and compare your results with weather forecasts from a meteorological source such as radio, telephone, television or newspaper.</p> <p>Evaluate. How accurate were the weather forecasts? How accurate were your observations? What might account for differences?</p>
<b>Row 3</b>	<p><b>Observe and Predict</b></p> <p>Observe and predict where you are likely to find the warmest and coolest temperatures in the following locations and explain why:</p> <ul style="list-style-type: none"> <li>• on the shore beside an ocean</li> <li>• in a cabin</li> <li>• in an oasis on the edge of a desert</li> </ul>	<p><b>Apply and Create</b></p> <p>Create a cartoon strip that shows what happens when a cold air mass meets a warm air mass.</p>	<p><b>Design and Measure</b></p> <p>You have been hired to construct a non-electrical device for measuring some aspect of the weather. The device is needed to determine weather conditions in the case of a power failure. (thermometer, barometer, rain gauge, weather vane) etc. Your instrument must</p> <ul style="list-style-type: none"> <li>• measure an aspect of the weather for which it was</li> </ul>

			designed <ul style="list-style-type: none"> <li>• have a measurement system</li> <li>• be reliable (give the same result in different trials)</li> <li>• use recycled materials</li> <li>• look nice</li> </ul>
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## Weather Watch Choice Board Rubric

Criteria	Excellent 5	Proficient 4	Satisfactory 3	Limited 2
Content /5	<ul style="list-style-type: none"><li>• I developed <i>insightful</i> and <i>detailed</i> understanding and explanations of the Unit's concepts and facts.<ul style="list-style-type: none"><li>○ observing, describing, forecasting, measuring, and explaining weather and climate</li></ul></li><li>• I used <i>precise</i> details.</li></ul>	<ul style="list-style-type: none"><li>• I developed <i>logical</i> and <i>thoughtful</i> understanding and explanations of the Unit's concepts and facts.<ul style="list-style-type: none"><li>○ observing, describing, forecasting, measuring, and explaining weather and climate</li></ul></li><li>• I used <i>logical</i> details.</li></ul>	<ul style="list-style-type: none"><li>• I developed <i>appropriate</i> and <i>basic</i> understanding and explanations of the Unit's concepts and facts.<ul style="list-style-type: none"><li>○ observing, describing, forecasting, measuring, and explaining weather and climate</li></ul></li><li>• I used <i>general</i> details.</li></ul>	<ul style="list-style-type: none"><li>• I developed <i>underdeveloped</i> and <i>vague</i> understanding and explanations of the Unit's concepts and facts.<ul style="list-style-type: none"><li>○ observing, describing, forecasting, measuring, and explaining weather and climate</li></ul></li><li>• I used <i>vague</i> details.</li></ul>
Presentation /5	<ul style="list-style-type: none"><li>• I communicated <i>effectively</i> and <i>accurately</i>.</li></ul>	<ul style="list-style-type: none"><li>• I communicated <i>thoughtfully</i> with <i>few</i> errors.</li></ul>	<ul style="list-style-type: none"><li>• I communicated <i>clearly</i> with <i>some</i> errors.</li></ul>	<ul style="list-style-type: none"><li>• I communicated <i>ineffectively</i> with <i>many</i> errors.</li></ul>
Insufficient	Your attempt to respond is <i>insufficient</i> . <b>Contact your teacher</b> to discuss suggestions for improvement.			
Total: /10				
Assessment	Areas of Strength:			
	Target for Improvement:			



### Save Your File

Name your file in this format: 3-3\_(jsmith)sc5-choiceboard and save your file to your Weather Watch folder. Submit to the appropriate Submission folder when completed.