**Unit 3: Weather Watch**

Name:

Date:

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| 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.

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| **Weather Watch Choice Board** | | | |
| **Row 1** | |  |  |  | | --- | --- | --- | | **Observe and Explain**  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.   * pour the hot water into the wide-mouthed container * place the tin foil pan over the mouth of the container * add the ice cubes to the pan * observe what happens |  |  | |  |  |  | |  |  |  | | **Apply and Explain**  How are weather systems generated on earth? What principles affect weather systems such as air pressure, temperature, sea level, wind, and humidity. Explain. | **Experiment and Design**  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. |
| **Row 2** | **Observe and Record**  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). | **Apply and Explain**  Describe the effects of the Sun’s energy on daily (24 hours) and seasonal (12 months of the year) changes in temperature. | **Observe and Measure**  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.  Evaluate. How accurate were the weather forecasts? How accurate were your observations? What might account for differences? |
| **Row 3** | **Observe and Predict**  Observe and predict where you are likely to find the warmest and coolest temperatures in the following locations and explain why:   * on the shore beside an ocean * in a cabin * in an oasis on the edge of a desert | **Apply and Create**  Create a cartoon strip that  shows what happens when a cold air mass meets a warm air mass. | **Design and Measure**  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   * measure an aspect of the weather for which it was designed * have a measurement system * be reliable (give the same result in different trials) * use recycled materials * look nice |

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| Weather Watch Choice Board Rubric |

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| --- | --- | --- | --- | --- | --- |
| Criteria | Excellent  5 | | Proficient  4 | Satisfactory  3 | Limited  2 |
| **Content /5** | * I developed *insightful* and *detailed* understanding and explanations of the Unit’s concepts and facts.   + observing, describing, forecasting, measuring, and explaining weather and climate * I used *precise* details. | | * I developed *logical* and *thoughtful* understanding and explanations of the Unit’s concepts and facts.   + observing, describing, forecasting, measuring, and explaining weather and climate * I used *logical* details. | * I developed *appropriate* and *basic* understanding and explanations of the Unit’s concepts and facts.   + observing, describing, forecasting, measuring, and explaining weather and climate * I used *general* details. | * I developed *underdeveloped* and *vague* understanding and explanations of the Unit’s concepts and facts.   + observing, describing, forecasting, measuring, and explaining weather and climate * I used *vague* details. |
| **Presentation /5** | * I communicated *effectively* and *accurately*. | | * I communicated *thoughtfully* with *few* errors. | * I communicated *clearly* with *some* errors. | * I communicated *ineffectively* with *many* errors*.* |
| **Insufficient** | Your attempt to respond is *insufficient*. **Contact your teacher** 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.