Student: Kaleigh Narracci Date: 2/20/13-3/1/13

Grade: 6 & 7 Topic: Performance Task 1: Weather Content Area: Science

**Instructional Objective**

Objective: After the completion of Unit 2:Weather, the students will be able to complete a task of creating a board game showing the effects hurricanes have on people or to become meteorologists and explain how to predict the weather. The students will complete the chosen task by scoring at least a three out of four on their NYS Rubric.

**Standards and Indicators**

NYS Science Learning Standard #4:

The Physical Setting: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key Idea #2.1a, c, d, j and 2.2i, j, k, l, p, q, r:

Students should develop an understanding of Earth as a set of closely coupled systems. The concept of systems provides a framework in which students can investigate three major interacting components: lithosphere, hydrosphere, and atmosphere. Processes act within and among the three components on a wide range of time scales to bring about continuous change in Earth’s crust, oceans, and atmosphere.

* Weather describes the conditions of the atmosphere at a given location for a short period of time.
* Climate is the characteristic weather that prevails from season to season and year to year.
* The uneven heating of Earth’s surface is the cause of weather.
* Air masses form when air remains nearly stationary over a large section of Earth’s surface and takes on the conditions of temperature and humidity from that location.
* Weather conditions at a location are determined primarily by temperature, humidity, and pressure of air masses over that location.
* Most local weather condition changes are caused by movement of air masses.
* The movement of air masses is determined by prevailing winds and upper air currents.
* Fronts are boundaries between air masses. Precipitation is likely to occur at these boundaries.
* High-pressure systems generally bring fair weather. Low-pressure systems usually bring cloudy, unstable conditions. The general movement of highs and lows is from west to east across the United States.
* Hazardous weather conditions include thunderstorms, tornadoes, hurricanes, ice storms, and blizzards. Humans can prepare for and respond to these conditions if given sufficient warning.

Indicator:

This will be evident when the students complete the chosen task on weather.

General Skills:

Students will follow safety procedures in the classroom and laboratory.

Indicator:

This will be evident when the students complete the chosen task on weather.

**Motivation**

The students will be asked what they found most exciting about the unit, and be given details about each task.

**Materials**

* SMART Board
* Laptop
* Task descriptions
* Construction Paper
* Crayons, Markers, Colored pencils, pens, pencils
* Oak tag
* Tri-fold boards
* Laptops
* Outside research
* Scissors
* Glue

**Strategies**

Cooperative learning: is an approach to organizing classroom activities into academic and social learning experiences. Students must work in groups to complete tasks collectively toward academic goals.

Kinesthetic Approaches: although the tasks are researched based, they create a fun but rigorous learning environment where the students are experiencing their learning. This tactic addresses the different needs of students and promotes overall learning.

**Adaptations**

The children with severe learning disabilities will have the teachers help them research and format their projects.

**Differentiation of Instruction**

Tier 1: The students will complete a task of creating a board game showing the effects hurricanes have on people or to become meteorologists and explain how to predict the weather. This will be done with one-on-one aid from other classmates and the teachers.

Tier 2: The students will complete a task of creating a board game showing the effects hurricanes have on people or to become meteorologists and explain how to predict the weather.

Tier 3: The students will complete a task of creating a board game showing the effects hurricanes have on people or to become meteorologists and explain how to predict the weather, while assisting their classmates.

**Developmental Procedures**

* The students will be presented with the tasks. *(What questions do you have?)*
* The students will chose which tasks they would like to complete. *(Which task would you like to choose?)*
* The students will be broken into groups. *(Does anyone have any concerns? What is each member of your group responsible for?)*
* The students will complete research for the task. *(What research are you finding? Is that a reliable source? How do you know? How do you plan to carry out the task?)*
* The students will complete the task. *(What is your plan of action? Why did you decide upon that? Do you need help? Who is finished?)*
* The students will present the task. *(Why did you choose this topic? Did you find the task hard? Was it enjoyable? What effect do hurricanes have on the environment and people? How do you predict weather? How do you become a meteorologist?)*

**Assessment**

The students will be able to complete a task of creating a board game showing the effects hurricanes have on people or to become meteorologists and explain how to predict the weather. The students will complete the chosen task by scoring at least a three out of four on their NYS Rubric.

**Independent Practice**

Complete necessary assignments to finish the task.

**Follow-Up: Direct Teacher Intervention and Academic Enrichment**

Direct Teacher Intervention: The student, under direct intervention with the teacher, will make corrections to their task.

Academic Enrichment: The students will review their own work and their classmates work making necessary changes as a group.

**Teacher References**

Bunch, B., & Branca, B. (1987). *Globe earth science*. (2nd ed.). Englewood Cliffs, NJ: Globe Book Company.

Daniel, Rillero, Snyder, & Zike, (2007). *Glencore science: New york science*. New York, NY: McGraw-Hill Education.

Denecke, E. (2008). *Let's review: Earth science the physical setting*. (3rd ed.). Whitestone, NY: Barron's.