Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_

Assignment Sheet 7th Grade Weather and Climate

Today I am explaining how weather tools over time led to better measurements.

\_\_\_\_\_\_Video: Watch the following video about the 1900 Galveston, TX hurricane. How and why is this different from today? <http://www.bing.com/videos/search?q=texas+galveston+1900+hurricane+disaster&&view=detail&mid=D034D833F67A2FD189A3D034D833F67A2FD189A3&FORM=VRDGAR>

<https://youtu.be/4MM9Im5KoHU>

<http://www.bing.com/videos/search?q=hurricane+katrina+&&view=detail&mid=E5109AD0EE8DD0F1AAEDE5109AD0EE8DD0F1AAED&FORM=VRDGAR>

http://www.bing.com/videos/search?q=how+did+hurricane+katrina+affect+the+environment&adlt=strict&view=detail&mid=D33E2FA1311D8C08F30DD33E2FA1311D8C08F30D&FORM=VRDGAR

**Topic expert: What is the problem or topic?**

**Environmental expert: What impact did this have on the environment? (Good/Bad/Ugly)**

**Conservation expert: What role does this problem have on saving plants and animals? Problem or not? Explain.**

**Cost expert: Advantages and disadvantages of this problem/ What are the costs associated with this problem?**

**Engineering expert: Possible solutions**

Five interesting facts

\_\_\_\_\_Students will research the history of weather tools and how improvements led to better measurements and understanding of weather. The following websites will aid in this research. Assign students a weather instrument to research their history and the enhancements over time that have improved forecasting. Divide the class into six groups (one per weather instrument).

**Be sure to include the following in your presentation:**

Topic expert: What is the problem or topic? How does it work?

Conservation expert: What role does this problem have on saving plants and animals. Problem or not? Explain.

Cost expert: Advantages and disadvantages of this problem/ What are the cost associated with this problem?

Technology expert: How has this technology helped scientists and society?

Engineering expert: Come up with a way to improve this technology. Explain how this works. Create a blueprint or 3-D model.

Five interesting facts

\_\_---Have the students in the group each fill out Handout 1-6: The History of Weather Tools independently (they will each be doing the same instrument). When every member of the group is done, have them share their findings with the group. They should come up with a consensus on each question and add to their responses.

https://www.weathershack.com/static/ed-history- of-weather- observing-tools.html,

http://www.physics.uwo.ca/~whocking/p103/instrum.html,

http://celebrating200years.noaa.gov/foundations/weather\_obs/welcome.html. http://www.weather.gov/timeline,

http://www.livescience.com/11339-weather- changed-history.html,

http://www.actforlibraries.org/history-of- weather-forecasting- weather-instruments/

How weather tool improvements have helped better understand weather.

http://www.scientificamerican.com/article/a-better- eye-on- the-storm/

http://www.nwclimate.org/guides/meteorological-instrumentation/

https://www.gwu.edu/~spi/assets/docs/Socio-EconomicBenefitsFinalREPORT2.pdf

http://www.adriansweather.com

http://svs.gsfc.nasa.gov/vis/a010000/a011200/a011219/ weather satelites to help collect rainfall data