Name: _____   **Date:** _____

Weather Alert Activity – Lightning Detector Testing and Analysis Worksheet

Instructions

Complete the following questions.

1. What are the parts of your lightning detector system? Draw each part in the space provided and explain how the parts work together to make the system work.

2. How well did your lightning detector work? What would you change to improve the system? If time allows, make those changes.

3. This is a small-scale model of a lightning detection system that uses a bell as the output for warning people if there is lightning in the area. What are other outputs that might be useful to alert people of lightning in their area? (Auditory, visual, etc.) How might you incorporate any other outputs to improve your lightning detector?

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4. Think about your community. Would this be helpful to alert people in your community to lightning in the area? Where would you place this detector and other detectors to reach the most people?

5. Design a thunderstorm alert process for your community. Think about how you would let people know about lightning that is in the air. Would you make more lightning detection systems or develop a way to use one or two detectors and then spread the alert to the community another way? List the steps of your process, starting with the lightning detector you just developed.

   Thunderstorm Alert System Steps:

   1. _____
   2. _____
   3. _____
   4. _____
   5. _____
   6. _____
   7. _____
   8. _____
   9. _____
   10. _____

6. Time is a factor when considering lightning strikes. How long does it take for lightning to become dangerous? How quickly do you want to let people know that lightning is in their area? What would you add to the steps of the thunderstorm alert process you just outlined to reflect the time needed to alert the community?