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| **Lesson Title** | Broadcast that Storm |
| **Length of Lesson** | One (50 minute) class periods |
| **Created By** | Calista Guthrie |
| **Subject** | Earth Science |
| **Grade Level** | 8th grade |
| **State Standards** | 8th: Inquiry, Earth Science |
| **DOK Level** | DOK 2, DOK 3 |
| **DOK Application** | Show, Cause/Effect, Relate, Investigate, Explain Phenomena in Terms of Concepts. |
| **National Standards** | 5-8: A (Inquiry); D (Earth Science); F(Science in Personal and Social Perspectives) |
| **Graduate Research Element** | Coastal wetlands act as a buffer for storms by absorbing storm surge. However, wetlands do not escape unscathed. |

**Student Learning Goal:**

MS 8th Grade:

1(d) Analyze evidence that is used to form explanations and draw conclusions. 4(c) Thermal energy transferred to the air results in movement of air masses.

National Science Education Standards of Content 5-8:

A: Inquiry: Think critically and logically to make the relationships between evidence and explanations.

D: Earth and Space Science: Structure of the Earth System.

F: Science in Personal and Social Perspectives: Natural Hazards. Risks and Benefits.

**Materials Needed (supplies, hand-outs, resources):**

PowerPoint (INSPIRE_Guthrie_10.01.12_SevereWeather), Notes sheet (INSPIRE_Guthrie_10.01.12_Notes), Requirements for broadcast (INSPIRE_Guthrie_10.01.12_BroadcastRequirements).

**Lesson Performance Task/Assessment:**

This lesson covers severe weather, the dangers involved, and the safety precautions one should take if a severe weather event is headed their way. The focus will be on thunderstorms, hurricanes, and tornadoes. The lesson will begin with sounds of storms followed by a video on severe weather (see Teacher Notes). The PowerPoint will present terminology associated with weather events and how the events occur. After the PowerPoint has been presented students will watch a video (see Teacher Notes) of weather broadcasts and their assignment will be explained. Students will be given 15 minutes to get their broadcast together. The last 10 minutes of class will be used to watch the broadcasts.

**Lesson Relevance to Performance Task and Students:**
Students will recognize the significance of severe weather and the importance of being aware of the environment around them. The broadcast activity will require students to use the terminology that they learned about the weather event they were assigned.

**Anticipatory Set/Capture Interest:**
Sound of lightning strike and storms. Have students guess what we will be discussing today. Next a severe weather video will be shown (see Teacher Notes)

**Guided Practice:**
Students will be guided through an explanation of severe weather by using the PowerPoint and notes. Students will watch a broadcast video (see Teacher Notes) of a severe weather broadcast as an example of reporting severe weather. Students will then use their notes to guide them in creating a news broadcast to inform their viewing area about the outbreak of severe weather.

**Check(s) for Understanding:**
Checks for understanding include questions asked to reinforce the content being learned during the PowerPoint presentation as well as the use of terminology correctly in the broadcast at the end of class. Sample Questions:
What happens when a cold front moves into an area?
What type of cloud is associated with cold fronts, lightening, and tornadoes?
What do you do if you are outside and it is lightening?

**Independent Practice:**
Students will be expected to stay on task during their broadcast planning time, making sure that they understand the terminology they are to use during their broadcast and casting and scripting their broadcast.

**Remediation and/or Enrichment:**
Remediation – Have students describe how severe storms form/ work either in words or illustrations. Also, have them list some safety precautions to take when caught in severe weather.

Enrichment- Have students investigate their schools severe weather safety plan and make revisions as they see needed and submit them to the school board.

**Closure:**
Class will end with the students making their broadcast. Before making their broadcast the requirements for that weather event will be read to the class. After each broadcast, briefly discuss the broadcast and how they did or did not meet their requirements.

**Possible Alternate Subject Integrations:**
Physical Science

**Teacher Notes**
Opening Video
http://www.youtube.com/watch?v=vhKjv9GuARQ&feature=relmfu
Broadcast Video
http://www.weather.com/weather/videos/storms-42/isaac-646/the-weather-channel-in-isaac-30401