

## Severe Weather Project

Each year 6000 fatalities and property damage in the billions of dollars are caused by weather related incidents. Eighty percent of all declared national emergencies are weather related. The National Weather Service (NWS) gathers and distributes weather related information. The most important service the NWS provides is to warn people of hazardous weather conditions including: thunderstorms, flooding, hurricanes, tornadoes, severe winter weather (blizzards and ice storms) and extreme heat.

For this activity you are a member of the NWS and it is your task to design an early warning and education brochure for an anticipated severe weather event.

Your pamphlet must illustrate/explain the following information.

- Describe in detail the type of severe weather event
- Show a map of the United States that diagrams the fronts, areas of high/low pressure that would cause the weather event
- Describe the seasonal variation of this type of weather event (times of the year when most likely to occur and why)
- Describe the atmospheric conditions which trigger this type of event, including temperature, dew point, relative humidity, percent of cloud cover and cloud type, wind speed and wind direction, barometer (rising, falling, steady) and an explanation of how your weather condition formed.
- Describe the impact on citizens including: loss of property (amounts), personal injuries, and loss of life due to this type of event.
- Specific examples of this type of severe weather event.
- Specifically explain types of land use decisions that are impacted by this type of event
- Specifically explain what individuals can do to protect themselves

The severe weather events are severe thunderstorms, tornadoes, hurricanes, floods, tsunami, drought, blizzards and ice storms.

**NOTE:** The focus of this project is to study a severe weather event in depth. References are being provided for you to minimize the time you spend searching for information.

**DUE: Tuesday March 21** at the beginning of the day. You will be summarizing the information in your brochure for the class.

Students **must** put the information in their own words. **Students plagiarizing the work will receive a zero.**

**EACH STUDENT** is responsible for turning in their research. Whether print resources or Internet resources are used you need to fill out the sheets indicating the topic, source and information gathered from the source. Website evaluation forms need to be filled out for any website you gain information from. **EACH STUDENT** needs to have a "Works Cited" page of the resources they used.

**Grading:** The project is graded based on the following criteria:**Severe Weather Brochure**  
**ChecBric**

- **Describe** the type of severe weather event
  - Show a map of the United States that diagrams the fronts, areas of high/low pressure that would cause the weather event
  - Describe the seasonal variation of this type of weather event (times of the year when most likely to occur and why)
  - Describe the atmospheric conditions which trigger this type of event, including temperature, dew point, relative humidity, percent of cloud cover and cloud type, wind speed and wind direction, barometer (rising, falling, steady) and an explanation of how your weather condition formed.
  - Describe the impact on citizens including: loss of property (amounts), personal injuries, and loss of life due to this type of event.
  - **Specific** examples of this type of severe weather event.
  - **Specifically** explain types of land use decisions that are impacted by this type of event
  - **Specifically** explain what individuals can do to protect themselves
  - **Presentation to the class**
  
- 4 Exceptional understanding/interpretation of the topic.  
All information is completely and correctly explained.  
Goes beyond grade level expectations.
  
- 3 Good understanding/interpretation of the topic.  
All information is correctly explained. High quality grade level work.
  
- 2 Proficient understanding/interpretation of the topic.  
Fulfills grade level standard.
  
- 1 Limited degree of understanding of the topic. Below grade level standard.

**Comments:**

**General Weather Cites:**

National Weather Service – Severe Weather Awareness :  
<http://www.nws.noaa.gov/os/thunderstorm/>

National Severe Storms Laboratory's Weather Room : <http://www.nssl.noaa.gov/edu/>