Students will begin the lesson by viewing primary sources related to disasters. They will identify 4 different disasters and select a primary source that best represents each disaster. With each primary source chosen students will list the name, date, and location of each of the disasters. The purposes of this activity are for students to understand both disasters and primary sources. Since the students will be viewing pictures of disasters, next they will be able to express themselves artistically. Students will think of a significant event that had impacted their very own lives. They will convey their reactions or feelings by drawing a picture. Thus, a sense of security and trust will be built within the classroom amongst peers and teacher. Third, students will report an emergency by participating in dialogue journals with the teacher. Through this activity, students will gain a sense of competence, confidence, and control in being able to handle disasters in the future. Last, students will make a thermometer model, chart daily temperatures for a short period of time, and display the data in a line graph. This will promote knowledge and awareness of meteorology, weather forecasting, and the prediction of disasters.

**Overview**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Students will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>view primary sources</td>
<td></td>
</tr>
<tr>
<td>orally explain a disaster</td>
<td></td>
</tr>
<tr>
<td>list what all disasters have in common</td>
<td></td>
</tr>
<tr>
<td>draw reactions of significant event in life</td>
<td></td>
</tr>
<tr>
<td>report an emergency by writing journal entries to the teacher in their dialogue journal</td>
<td></td>
</tr>
<tr>
<td>construct a thermometer model</td>
<td></td>
</tr>
<tr>
<td>make a line graph by means of observation and collection of data</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommended time frame</th>
<th>5 One hour lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade level</td>
<td>Third grade</td>
</tr>
<tr>
<td>Curriculum fit</td>
<td>Language Arts, Technology, History, Science, Math</td>
</tr>
</tbody>
</table>
Materials

- Copy of the Book *The Berenstain Bears and the Messy Room* (see resource page)
- Copy of the Book *If You Lived at the Time of the Great San Francisco Earthquake* (see resource page)
- Copy of the Book *Tornadoes: Disaster & Survival* (see resource page)
- Copy of the Book *What Will the Weather Be?* (see resource page)
- Overhead Projector and “Tornado” in a Bottle
- Three Primary Sources (Doc., Cartoon, Ill.)
- Community Model and Hand-held blow dryer
- Thermometer and Thermometer Pattern
- White/Red Construction Paper, Heavy Poster Board
- Crayons, Markers, Pencils, Paper
- Scissors and Glue
- Graph Paper and Journals
- *Thermometer Directions and Power Point*
- *Examples and Worksheets*
- *Checklists and Rubrics*

**Illinois State Learning Standards**

STATE GOAL 5: Use the language arts to acquire, assess and communicate information.

- **5B.** Analyze and evaluate information acquired from various sources.
- **5.B.1a** Select and organize information from various sources for a specific purpose.

**Pennsylvania State Learning Standards**

1.4.3. Types of Writing
   - B. Write informational pieces using illustrations when relevant.

1.6.3. Speaking and Listening
   - E. Participate in small and large group discussions and presentations.

2.6.3. Statistics and Data Analysis
   - A. Gather, organize and display data using pictures, tallies, charts, bar graphs and pictographs.

2.88.3. Algebra and Functions
   - G. Use a table or a chart to display information.

7.2.3. The Physical Characteristics of Places and Regions
   - B. Identify the basic physical processes that affect the physical characteristics of places and regions.
<table>
<thead>
<tr>
<th>8.1.3. Historical Analysis and Skills Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Understand historical research.</td>
</tr>
<tr>
<td>3.5.4. Earth Sciences</td>
</tr>
<tr>
<td>C. Know basic weather elements.</td>
</tr>
<tr>
<td>3.7.4. Technological Devices</td>
</tr>
<tr>
<td>A. Explore the use of basic tools, simple materials and techniques to safely solve problems.</td>
</tr>
</tbody>
</table>

## Procedures

### Day One:
- Read [The Berenstain Bears and the Messy Room](#).
- Show Power Point presentation in computer lab.
- Discuss definition of disaster and key points:
  - Causes severe damage, injury, and possible loss of life.
  - Very costly to repair damage.
  - Known world wide.
- Introduce Primary Sources. Model how to access Library of Congress website. Model how to search for Primary Sources in American Memory section of LOC.

### Day Two:
Read portions of [If You Lived at the Time of the Great San Francisco Earthquake](#).
- Review def. of disaster/primary source concept
- Model again how to access LOC website.
- Model again how to search Primary Sources in American Memory section of LOC.
- Model how to copy/paste images into Comparing Disasters worksheet.
- Explain directions and begin working on worksheet.

### Day Three:
- Read selections of [Tornadoes: Disaster & Survival](#).
- Introduce Comparing Disasters Student Checklist. Continue work on Comparing Disasters Worksheet. Students can share Primary Source disasters.
- Discuss student responses to the “disasters alike?” section of Worksheet.
- Students can share feelings of primary source pictures. View illustration of “The Crying Towers.”
- Students will think of an event in their lives (relocating, death, divorce, etc.) and draw a picture of reactions. Pictures can be shared.
Day Four:
- Have small community set up. Turn on blow dryer and prompt students to name disaster (Hurricane). Discuss Storm Safety and conduct storm drills.
- Pearl Harbor Document will be on overhead projector. Discuss Pearl Harbor, the destruction, and safety procedures taken afterward.
- Begin Journal Entry in Dialogue Journal. Choose a disaster and report emergency (by writing in journal) to one of the following: 911, Fire Department, Police Station, etc. Teacher will respond by writing back to each student.
- Journals will continue between students and teacher until everyone fully describes disaster and feels confident about what to do during a real disaster. (Teacher and students can write in journals during free time, selected times during school and at home).

Day Five:
- Read the story What Will the Weather Be?
- Students will cooperatively work on Cartoon Analysis Worksheet by observing tornado cartoon. (Cartoon shows a despondent “comic” figure labeled “Old Man Weather” carrying a watering can, fan, thermometer, weather balloon, and wind gauge, while in the background a tornado wreaks havoc. Probably comments on the particularly large number of tornadoes hitting the United States in 1953).
- Observe a miniature tornado vortex (Bottle). Discuss cartoon and how the tools help meteorologists gather information and measure/record weather.
- Make a thermometer model. Using a real one chart daily temperature for 5 days at school.
- Display in a line graph. Thermometer observations will be same time throughout week and temperature recorded on charts by students.

** Handouts**
### Evaluation

- To assess student understanding of Primary Sources, the teacher will give examples and non-examples of Primary Sources and ask students to give a “Thumbs up” if the example is a Primary Source, and a “Thumbs down” if the example is not a Primary Source.
- Students will be given a post-it note and asked to write one example of a Primary Source and their name on it. As students exit the classroom, they will stick their note to the designated board.
- Student Comparing Disasters Checklist
- Line Graph Checklist
- Illustration
- Dialogue Journal
- Rubric for Comparing Disasters Worksheet
- Scoring Rubric for Line Graph

### Extension

- Create a Venn Diagram comparing two/three disasters
- Choose one disaster and design a poster showing facts and information about the disaster using Primary Sources
- Do a KWL worksheet about a disaster. Read a nonfiction book about the disaster and complete the KWL sheet
- Using a map of the United States, draw pictures of today's weather in different parts of the country.
- Complete a Web Quest on natural disasters
- Distribute weather safety information in the school or community
- Send care packages for victims of weather disasters
- Create a current events display
<table>
<thead>
<tr>
<th>Image/Resource</th>
<th>Description</th>
<th>Citation</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2.jpg" alt="Image" /></td>
<td>New England hurricane. Barn in Connecticut.</td>
<td>Library of Congress, Prints &amp; Photographs Division, FSA-OWI Collection, [reproduction number, e.g., LC-USF35-1326]</td>
<td>[<a href="http://memory.loc.gov/cgi-bin/query/r?ammem/fsaall:@field(NUMBER+@band(fsa+8c02263))">http://memory.loc.gov/cgi-bin/query/r?ammem/fsaall:@field(NUMBER+@band(fsa+8c02263))</a>]</td>
</tr>
<tr>
<td><img src="image3.jpg" alt="Image" /></td>
<td>Panoramic picture of ruins of Pompeii</td>
<td>Library of Congress, Prints and Photographs Division <a href="http://hdl.loc.gov/loc.pnp/pan.6a23839">reproduction number, pan 6a23839</a></td>
<td>[<a href="http://memory.loc.gov/cgi-bin/query/r?ammem/pan:@field(NUMBER+@band(pan+6a23839))">http://memory.loc.gov/cgi-bin/query/r?ammem/pan:@field(NUMBER+@band(pan+6a23839))</a>]</td>
</tr>
<tr>
<td><img src="image4.jpg" alt="Image" /></td>
<td>Soothing her kitten, a girl of Hickman Mills, Missouri, sits in the ruins of her home destroyed by a tornado, 1957 Copyprint of gelatin silver print</td>
<td>LOC Prints and Photographs Division LC-USZ62-114377 (49) Grey Villet</td>
<td><a href="http://www.loc.gov/exhibits/young/images/y49-3c14377r.jpg">http://www.loc.gov/exhibits/young/images/y49-3c14377r.jpg</a></td>
</tr>
<tr>
<td>Image</td>
<td>Text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="515x36.png" alt="Image" /></td>
<td>Before and After the Great Earthquake and Fire: Early Films of San Francisco, 1897-1916</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="90x444.png" alt="Image" /></td>
<td>Library of Congress, Motion Picture, Broadcasting, and Recorded Sound Division. lcmp003 03734s1 03734s2 03734s3 03734s4 <a href="http://hdl.loc.gov/loc.mbrsmi/lcmp003.03734">http://hdl.loc.gov/loc.mbrsmi/lcmp003.03734</a></td>
<td>[<a href="http://memory.loc.gov/cgi-bin/query/r?ammem/papr:@field(NUMBER+@band(lcmp003+03734s4))">http://memory.loc.gov/cgi-bin/query/r?ammem/papr:@field(NUMBER+@band(lcmp003+03734s4))</a>]</td>
<td></td>
</tr>
<tr>
<td><img src="90x142.png" alt="Image" /></td>
<td>Debris litters the city of Meulaboh, Sumatra, Indonesia, following the Dec. 2004 earthquake and tsunami.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="85x690.png" alt="Image" /></td>
<td>View of World Trade Center towers, New York, New York, with tower #2 exploding in a ball of fire after the September 11th terrorist attack, September 11, 2001. Inkjet print</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="314x66.png" alt="Image" /></td>
<td>Gift of Thomas B. and Katherine B. Martin LOC Prints and Photographs Division (157)</td>
<td>[<a href="http://www.loc.gov/exhibits/911/images/01810r.jpg">http://www.loc.gov/exhibits/911/images/01810r.jpg</a>]</td>
<td></td>
</tr>
</tbody>
</table>


**Rubric – Comparing Disasters Worksheet**

**Back to Navigation Bar**

Student Name: _________________________________________________

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources</td>
<td>4 Primary Sources shown.</td>
<td>3 Primary Sources shown.</td>
<td>2 Primary Sources shown.</td>
<td>1 or no Primary Sources shown.</td>
</tr>
<tr>
<td>Requirements</td>
<td>All 4 Primary Source examples have name of disaster, date of disaster, and location of disaster.</td>
<td>Most Primary Source examples have name of disaster, date of disaster, and location of disaster.</td>
<td>Few Primary Source examples have name of disaster, date of disaster, and location of disaster.</td>
<td>None of the Primary Source examples have name of disaster, date of disaster, and location of disaster.</td>
</tr>
<tr>
<td>Content</td>
<td>Disaster comparison section lists the three key elements.</td>
<td>Disaster comparison section lists two key elements.</td>
<td>Disaster comparison section lists one key element.</td>
<td>Disaster comparison section lists no key elements.</td>
</tr>
</tbody>
</table>
Scoring Rubric for Line Graph

Student Name__________________________

Score Point 4 - All of the following evident:

- Graph is constructed neatly
- Both axes are correctly labeled
- Data displayed at equal intervals on both axes
- Data displayed accurately on the line graph

Score Point 3 - Three of the following evident:

- Graph is constructed neatly
- Both axes are correctly labeled
- Data displayed at equal intervals on both axes
- Data displayed accurately on the line graph

Score Point 2 - Two of the following evident:

- Graph contains minor inaccuracies.
- Both axes are correctly labeled
- Data displayed at equal intervals on both axes
- Data displayed accurately on the line graph

Score Point 1 - Only one of the following evident:

- Graph is missing something crucial or inaccurate
- Both axes are correctly labeled
- Data displayed at equal intervals on both axes
- Data displayed accurately on the line graph

Score Point 0

- blank
- off-task, off-topic
- illegible/unreadable.
Student Comparing Disasters Checklist

Name _____________________________                      Date ___/___/___

☐ Student has chosen 4 Primary Sources

☐ Each Primary Source has the correct name

☐ Each Primary Source has the correct date

☐ Each Primary Source has the correct location

☐ Student has listed at least 3 things all disasters have in common in the center section.
Line Graph Student Checklist

Name ___________________________                     Date ___/___/___

d □ Student has used grid paper

d □ Title has the correct name

d □ Vertical axis (Temperature) and Horizontal Axis (Dates) has correct name

d □ Temperature Numbers (0,5,10…) and Dates chosen placed at equal intervals

d □ Each point is plotted correctly and connected by a line
room is not a disaster!

How are the disasters similar?

_____________

Disaster Name ____________
Date of Disaster ____________
Location of Disaster ____________

Student Name

Disaster Name ____________
Date of Disaster ____________
Location of Disaster ____________

Disaster Name ____________
Date of Disaster ____________
Location of Disaster ____________

Disaster Name ____________
Date of Disaster ____________
Location of Disaster ____________

Disaster Name ____________
Date of Disaster ____________
Location of Disaster ____________
Cartoon Analysis Worksheet

1. Identify the cartoon title.

2. List the objects or people you see in the cartoon.

3. Which of the objects on your list are symbols?

4. What do you think each symbol means?

5. Describe the action taking place in the cartoon.

6. Explain the message of the cartoon.

Designed and developed by the Education Staff, National Archives and Records Administration, Washington, DC 20408
1. Copy thermometer pattern onto poster board and mercury strips onto construction paper.
2. Glue Tab A to Tab B to form one long strip.
3. Cut the slits at the top and bottom of the thermometer.
4. Starting with the * end behind the thermometer, slide the mercury strip through the bottom slit.
5. Keep pulling the strip up the front and through the top slit.
6. Move the mercury up and down by holding on to the strip underneath.
Average Daily Temperature for January 1-7 in Degrees Fahrenheit

<table>
<thead>
<tr>
<th>Date</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
</tr>
</tbody>
</table>

Above is a table that shows the date in one column and the corresponding temperature in the second column. The title of our chart will be Average Daily Temperature for (Month) (Dates) in Degrees Fahrenheit. The left side of the chart will be labeled “Date.” The right side of the chart will be labeled “Temperature.” Underneath the labels the correct dates chosen and temperatures observed will be written down daily for five days.

*** Use the chart above for practice to plot the points and draw in the line on the Line Graph Example. ***
Line Graph Example

A line graph is most useful in displaying data or information that changes continuously over time. The title of our line graph will be "Average Daily Temperature for (Month) (Dates) in Degrees Fahrenheit". It will be placed above the line graph. The label “Temperature” will be placed on the vertical axis (up and down numbers on the left of the graph). The label “Dates” will be placed on the horizontal axis (going sideways from left to right). The temperature degrees (0, 5, 10 ...) will be placed on the vertical axis at equal intervals. The dates of the week chosen will be placed on the horizontal axis at equal intervals.

The points for the temperature for each day are connected by a line.

***Plot the points and draw in a line for practice using the Chart Example. ***
Resources