HURRICANE ANDREW ... 25 YEARS LATER

Instructional Resource Guide

August 2017
Miami-Dade County Public Schools
Department of Social Sciences
THE SCHOOL BOARD OF MIAMI-DADE COUNTY, FLORIDA

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Introduction
Hurricane Andrew, August 1992

In the early morning hours of August 24, 1992, Hurricane Andrew, one of the most fierce and destructive hurricanes on record, made landfall in South Florida. Andrew, one of the few Category 5 storms to reach the United States, caused over $25 billion in damage in South Florida, temporarily left up to 250,000 people homeless, and took the lives of 15 people. Wind gusts as high as 169 mph were recorded, although a private residence recorded a gust of 177 mph.

As residents of southern Miami-Dade County emerged from their homes the next morning, they were face to face with devastation. Trees were down, twisted, mangled. Those who still had homes, found them unrecognizable. Windows were missing, roofs gone, streets were impassable. People walked around...dazed. Many compared it to a bombed-out war zone. In the days to come, government officials and soldiers would arrive. Curfews were put in place. At night, South Miami-Dade was filled with constant flashing red lights and the sounds of military personnel in passing jeeps along with helicopters overhead. Homestead and Homestead Air Force Base were both decimated. Tent cities were set up for the homeless, with helicopters making food drops for those in inaccessible areas.

Facing a clean-up job of enormous magnitude, the leaders and residents of South Florida came together. Neighbors shared whatever they had and helped one another rebuild. Those who experienced Hurricane Andrew will never forget. The community would eventually rebuild, but, remain forever changed.

Hurricane Andrew, the most destructive storm in the history of Florida would come to be known as “The Big One.” As the Miami Herald Headline the following day would simply call it: “DESTRUCTION AT DAWN”

As we revisit Hurricane Andrew twenty-five years later, this resource guide has been created to use with students to explore the history of the event and its impact on our community. It may also serve as a tool to learn more about hurricanes and hurricane preparedness. Teachers are encouraged to adapt the activities to address the grade level and abilities of their students.
# Instructional Resource Guide

## HURRICANE ANDREW ... TWENTY-FIVE YEARS LATER

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One of the most destructive United States hurricanes of record started modestly as a tropical wave that emerged from the west coast of Africa on August 14. The wave spawned a tropical depression on August 16, which became Tropical Storm Andrew the next day. Further development was slow, as the west-northwestward moving Andrew encountered an unfavorable upper-level trough. Indeed, the storm almost dissipated on August 20 due to vertical wind shear. By August 21, Andrew was midway between Bermuda and Puerto Rico and turning westward into a more favorable environment. Rapid strengthening occurred, with Andrew reaching hurricane strength on the 22nd and Category 4 status on the 23rd. After briefly weakening over the Bahamas, Andrew regained Category 4 status as it blasted its way across south Florida on August 24. The hurricane continued westward into the Gulf of Mexico where it gradually turned northward. This motion brought Andrew to the central Louisiana coast on August 26 as a Category 3 hurricane. Andrew then turned northeastward, eventually merging with a frontal system over the Mid-Atlantic states on August 28.

Reports from private barometers helped establish that Andrew's central pressure at landfall in Homestead, Florida was 27.23 inches, which makes it the third most intense hurricane of record to hit the United States. Andrew's peak winds in south Florida were not directly measured due to destruction of the measuring instruments. An automated station at Fowey Rocks reported 142 mph sustained winds with gusts to 169 mph (measured 144 ft above the ground), and higher values may have occurred after the station was damaged and stopped reporting. The National Hurricane Center had a peak gust of 164 mph (measured 130 ft above the ground), while a 177 mph gust was measured at a private home. Additionally, Berwick, LA reported 96 mph sustained winds with gusts to 120 mph.

Andrew produced a 17 ft storm surge near the landfall point in Florida, while storm tides of at least 8 ft inundated portions of the Louisiana coast. Andrew also produced a killer tornado in southeastern Louisiana. Andrew is responsible for 23 deaths in the United States and three more in the Bahamas. The hurricane caused $26.5 billion in damage in the United States, of which $1 billion occurred in Louisiana and the rest in south Florida. The vast majority of the damage in Florida was due to the winds. Damage in the Bahamas was estimated at $250 million.

http://www.nhc.noaa.gov/outreach/history/#andrew
The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical cyclones with sustained winds exceeding 150 mph.

<table>
<thead>
<tr>
<th>Category</th>
<th>Sustained Winds</th>
<th>Types of Damage Due to Hurricane Winds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>74-95 mph</td>
<td><strong>Very dangerous winds will produce some damage:</strong> Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.</td>
</tr>
<tr>
<td></td>
<td>64-82 kt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>119-153 km/h</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>96-110 mph</td>
<td><strong>Extremely dangerous winds will cause extensive damage:</strong> Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.</td>
</tr>
<tr>
<td></td>
<td>83-95 kt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>154-177 km/h</td>
<td></td>
</tr>
<tr>
<td>3 (major)</td>
<td>111-129 mph</td>
<td><strong>Devastating damage will occur:</strong> Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.</td>
</tr>
<tr>
<td></td>
<td>96-112 kt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>178-208 km/h</td>
<td></td>
</tr>
<tr>
<td>4 (major)</td>
<td>130-156 mph</td>
<td><strong>Catastrophic damage will occur:</strong> Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.</td>
</tr>
<tr>
<td></td>
<td>113-136 kt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>209-251 km/h</td>
<td></td>
</tr>
<tr>
<td>5 (major)</td>
<td>157 mph or higher</td>
<td><strong>Catastrophic damage will occur:</strong> A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.</td>
</tr>
<tr>
<td></td>
<td>137 kt or higher</td>
<td></td>
</tr>
<tr>
<td></td>
<td>252 km/h or higher</td>
<td></td>
</tr>
</tbody>
</table>

http://www.nhc.noaa.gov/aboutsshws.php
Images: Hurricane Andrew

Images from National Hurricane Center  http://www.nhc.noaa.gov/1992andrew.html
Hurricane Andrew’s Path: 1992

Storm Coordinates/Information

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Wind Speed (kt)</th>
<th>Pressure (mb)</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/16/1992</td>
<td>6pm</td>
<td>10.8 N</td>
<td>35.5 W</td>
<td>25</td>
<td>1010</td>
<td>Tropical Depression</td>
</tr>
<tr>
<td>8/17/1992</td>
<td>6pm</td>
<td>13.1 N</td>
<td>44.2 W</td>
<td>35</td>
<td>1003</td>
<td>Tropical Storm</td>
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<tr>
<td>8/18/1992</td>
<td>6pm</td>
<td>15.4 N</td>
<td>51.8 W</td>
<td>45</td>
<td>1000</td>
<td>Tropical Storm</td>
</tr>
<tr>
<td>8/19/1992</td>
<td>6pm</td>
<td>18.8 N</td>
<td>58.3 W</td>
<td>45</td>
<td>1007</td>
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<tr>
<td>8/20/1992</td>
<td>6pm</td>
<td>22.5 N</td>
<td>61.5 W</td>
<td>40</td>
<td>1014</td>
<td>Tropical Storm</td>
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<tr>
<td>8/21/1992</td>
<td>6pm</td>
<td>24.8 N</td>
<td>64.9 W</td>
<td>50</td>
<td>1004</td>
<td>Tropical Storm</td>
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<tr>
<td>8/22/1992</td>
<td>6pm</td>
<td>25.7 N</td>
<td>69.7 W</td>
<td>95</td>
<td>969</td>
<td>Hurricane</td>
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<tr>
<td>8/23/1992</td>
<td>6pm</td>
<td>25.4 N</td>
<td>75.8 W</td>
<td>150</td>
<td>922</td>
<td>Hurricane</td>
</tr>
<tr>
<td>8/24/1992</td>
<td>6am</td>
<td>25.4 N</td>
<td>79.3 W</td>
<td>130</td>
<td>937</td>
<td>Hurricane</td>
</tr>
<tr>
<td>8/24/1992</td>
<td>6pm</td>
<td>25.8 N</td>
<td>83.1 W</td>
<td>115</td>
<td>947</td>
<td>Hurricane</td>
</tr>
<tr>
<td>8/25/1992</td>
<td>6pm</td>
<td>27.8 N</td>
<td>89.6 W</td>
<td>125</td>
<td>941</td>
<td>Hurricane</td>
</tr>
<tr>
<td>8/26/1992</td>
<td>6am</td>
<td>29.2 N</td>
<td>91.3 W</td>
<td>120</td>
<td>955</td>
<td>Hurricane</td>
</tr>
<tr>
<td>8/26/1992</td>
<td>6pm</td>
<td>30.9 N</td>
<td>91.6 W</td>
<td>50</td>
<td>991</td>
<td>Tropical Storm</td>
</tr>
<tr>
<td>8/27/1992</td>
<td>6pm</td>
<td>33.6 N</td>
<td>88.4 W</td>
<td>25</td>
<td>999</td>
<td>Tropical Depression</td>
</tr>
<tr>
<td>8/28/1992</td>
<td>6am</td>
<td>35.4 N</td>
<td>84.0 W</td>
<td>20</td>
<td>1000</td>
<td>Tropical Depression</td>
</tr>
</tbody>
</table>

Statistical Information from: National Hurricane Center- NOAA
Elementary Activities and Related Benchmarks

Elementary Activities

Create a KWL Chart- Create a KWL chart with students for Hurricanes. Brainstorm with class regarding information they already have on hurricanes and what they would like to know. At the end of their studies, have students list what they have learned. This activity may be done on hurricanes in general, or specifically on Hurricane Andrew. (KWL Chart included on page 14 of this resource guide)

Understanding Hurricanes- Project the National Geographic video Hurricanes 101 (3 min.) on Promethean or Smart Board. Have a class discussion regarding the contents of the video. Then have students create a “Hurricane Fact Sheet.”

Latitude, Longitude, Tracking Storms: Introduce/review basic map skills. Demonstrate how to track hurricanes using latitude and longitude. Provide students with Hurricane Tracking Maps (included) or project on the Promethean/Smartboard. Have students track the course of Hurricane Andrew using the coordinates provided in the background information section.

Hurricane Andrew- Read and discuss the Elementary Reading Hurricane Andrew (appendix, page 15 of this resource guide). Then have students write a news report on Hurricane Andrew.

Guest Speaker- Invite a parent or community member who experienced Hurricane Andrew to visit your classroom to discuss the event. Then have students write a journal entry from the point of view as a person who endured Hurricane Andrew. Early grade students may draw a pictorial journal.

Picture Dictionaries- Have students create their own picture dictionaries that represent terms and features associated with hurricanes.

Hurricane Preparedness- Have students view the video Get Weather Ready- During a Hurricane (link below) through the Promethean or Smart Board. After viewing the video, have a class discussion. Make sure students understand: Hurricane Watch; Hurricane Warning; Evacuation; and Safety tips for remaining home during a storm. Then project, read and discuss the National Weather Service (NOAA) Hurricane Safety Brochure [link](http://www.nws.noaa.gov/om/hurricane/resources/hurricane-safety_flyer.pdf) (Spanish Version) [link](http://www.nws.noaa.gov/om/hurricane/resources/hurricane-safety_flyer_ESPANOL.pdf). When both items have been completed, have students work individually or in small groups to create Hurricane Preparedness posters. Video Get Weather Ready- During a Hurricane [link](https://www.youtube.com/watch?v=2VOJdqT79JY)

Related Social Studies Benchmarks (K-5)

SS.K.G.3.In.c: Recognize types of weather and a way weather affects people.

S.K.A.1.2: Develop an awareness of a primary source.

SS.1.G.1.6: Describe how location, weather, and physical environment affect the way people live in our community.

SS.1.G.1.1: Use physical and political/cultural maps to locate places in Florida.

SS.1.A.1.1: Develop an understanding of a primary source.

SS.1.A.2.2: Compare life now with life in the past.
SS.2.G.1.1: Use different types of maps (political, physical, and thematic) to identify map elements.

SS.2.A.1.1: Examine primary and secondary sources.

SS.3.G.1.1: Use thematic maps, tables, charts, graphs, and photos to analyze geographic information.

SS.3.A.1.1: Analyze primary and secondary sources.

SS.3.A.1.2: Utilize technology resources to gather information from primary and secondary sources.

SS.4.G.1.In.c: Identify effects of weather in Florida, such as hurricanes, thunderstorms, drought, and mild climate.

SS.4.A.1.1: Analyze primary and secondary resources to identify significant individuals and events throughout Florida history.

SS.5.G.1.2: Use latitude and longitude to locate places.

SS.5.G.4.2: Use geography concepts and skills such as recognizing patterns, mapping, graphing to find solutions for local, state, or national problems

SS.5.A.1.1: Use primary and secondary sources to understand history.

SS.5.A.1.Su.a: Use primary and secondary resources related to history, such as letters, video recordings, photographs, pictures, and maps.
Middle School Activities and Related Benchmarks

Middle School Activities

**Latitude, Longitude, Track Storms**

- **Latitude, Longitude, Track Storms** - Review basic map skills. Demonstrate how to track hurricanes using latitude and longitude. Provide students with Hurricane Tracking Maps (included page 5) or project on the Promethean/Smartboard. Have students track the course of Hurricane Andrew using the coordinates provided on page 4 of the background information section. Have students check daily updates from the National Hurricane Center and track active storms.

**Understanding Hurricanes**

- Have students read and discuss the article from NASA: [How Hurricanes Form](#). Then have students create a flow chart showing the development of a hurricane.

**Hurricane Andrew**

- Project the reading Hurricane Andrew 1992 (page 1 -resource guide) on the Promethean or Smart Board. Divide the class into groups. Have each group prepare a Hurricane Bulletin Update on Hurricane Andrew from the point of view of a meteorologist that might be presented on the Weather Channel. Using the data on page 4 of the resource guide, the time-period for their bulletin should be August 23, 1992 – 6 pm. Encourage students to research and use visuals: photographs, satellite images, maps, etc. Each group should present a 3-5 minute news bulletin. If equipment is available, presentation may be presented in video format.

**Time Line**

- Have students create a time line for Hurricane Andrew.

**Experiencing Hurricane Andrew**

- Brian Norcross was a meteorologist working for Channel 4, Miami during Hurricane Andrew in 1992. He became well-known for his coverage of the event. Explain to students that they will be watching a video that shows live coverage of the hurricane. Project the video [Hurricane Andrew-From the WTVJ "Bunker"] on the Promethean or Smart Board. After discussing the video have students create a newspaper headline and write a brief article based on the video.

**Experiencing Hurricane Andrew**

- Divide students into groups to examine and discuss the Miami Herald’s [Flashback Miami: The Big One- Hurricane Andrew](#). Have students work together to create a visual display (or power point presentation) describing the experience of Hurricane Andrew.

**Interviewing Andrew Survivors**

- Brainstorm with students as to what questions they would like to ask a person who experienced Hurricane Andrew and create a list of questions. Then have students interview a family member or friend who experienced the hurricane using the previously developed questions as a guide. Students should write a Hurricane Memory article based on the interview. Articles may be shared and placed in a Hurricane Andrew Memory Book.

**Hurricane Preparedness**

- Have students work in groups to read and discuss Miami-Dade County’s [2017 Guide to Hurricane Readiness](#). Each group should take the role of a community leader (City Mayor, County Mayor, Superintendent of Schools, etc.) and prepare a press release from that point of view. The press release should include information on the hurricane, instructions on preparing for the storm, necessary supplies, and safety tips before and after the storm.

**Analyzing Hurricane Andrew Photographs**

- Have students research to find photographs showing the aftermath of Hurricane Andrew. Then have students analyze the image and complete Photograph Analysis worksheet (included in Appendix p. 17). Provide time for students to share their images and analysis.

**Related Social Studies Benchmarks (grades 6-8)**

- **SS.6.G.1.1.** Use latitude and longitude coordinates to understand the relationship between people and places on the earth.
SS.6.G.1.2 Analyze the purposes of map projections (political, physical, special purpose) and explain the applications of various types of maps.

SS.6.G.1.In.b: Identify the purposes of different types of maps, such as political, physical, or special purpose maps.

SS.6.G.1.In.d: Use tools of geography, such as maps, globes, satellite images, and charts.


SS.7.G.1: Understand how to use maps and other geographic representations, tools, and technology to report information.

SS.7.G.2.3: Explain how major physical characteristics, natural resources, climate, and absolute and relative location have influenced settlement, economies, and inter-governmental relations in North America.

SS.7.G.6.Su.a: Use a form of technology to view maps with current information about a region of the United States, such as population maps.

SS.8.A.1.6 Compare interpretations of key events and issues throughout American History.

SS.8.G.1: Understand how to use maps and other geographic representations, tools, and technology to report information.

SS.8.G.6.1: Use appropriate maps and other graphic representations to analyze geographic problems and changes over time throughout American history.

SS.8.G.2.2: Use geographic terms and tools to analyze case studies of regional issues in different parts of the United States that have had critical economic, physical, or political ramifications.

SS.8.A.1 Use research and inquiry skills to analyze American History using primary and secondary sources.

SS.8.A.1.6 Compare interpretations of key events and issues throughout American History.

SS.8.A.1.7: View historic events through the eyes of those who were there as shown in their art, writings, music, and artifacts.
Senior High School Activities and Related Benchmarks

Senior High School Activities

Latitude, Longitude, Tracking Storms- Have students track the course of Hurricane Andrew using the coordinates provided on page 4 of the background information section. Also, have students check daily updates from the National Hurricane Center and track active storms. Students may work individually or in groups using the interactive storm tracker: https://www.accuweather.com/en/hurricane/tracker

Hurricane Andrew- After researching Hurricane Andrew, have students create a newspaper article describing the event as it unfolded.

Hurricane Andrew: Problems and Solutions- Have students read the Sun Sentinel Article Hurricane Andrew's Legacy Remains as 25th Anniversary Approaches. Then have students create a two-column chart listing the problems caused by Hurricane Andrew and changes that have been brought about due to Andrew.

Hurricane Andrew Then and Now- Project the video Then and Now: Scenes from Hurricane Andrew on the Promethean or Smart Board. In the video Miami Herald photographers revisit the scene of images they shot during Hurricane Andrew and tell the stories of the storm. Have students create a blog describing the events and emotions experienced by Miamians during/after Hurricane Andrew.

Response to Hurricane Andrew- Research the aftermath of Hurricane Andrew, its victims; the local, state, and national response as well as the subsequent clean-up and rebuilding. Have students create an editorial column or letter to the editor addressing opinion driven topics regarding the effectiveness of governmental assistance efforts after Hurricane Andrew.

Timeline- Have students create a timeline of the progression of Hurricane Andrew from its beginnings as a tropical depression through its dissipation.

Interviewing Andrew Survivors- Have students interview a family or community member who experienced Hurricane Andrew to find out how the hurricane impacted their lives. Have students write journal entries from the perspective of the person they interviewed.

Hurricane Preparedness- Have students work collaboratively to read and discuss Miami-Dade County’s 2017 Guide to Hurricane Readiness. Then have students create their own Hurricane Preparedness pamphlets.

Analyzing Photographs - Have students research to find photographs showing the aftermath of Hurricane Andrew. Then have students analyze the image and complete Photograph Analysis worksheet (included in Appendix p. 17). Provide time for students to share their images and analysis,

Effects of Global Warming on Hurricane Intensity - Scientists disagree on whether global warming is causing hurricanes to become more intense. Project the video “Stronger Hurricanes” on your Promethean or Smart Board. The video presents scientists discussing both sides of the issue. Divide students into two groups, representing both sides of the disagreement. After researching their selected “side,” have a classroom debate on whether or not global warming is creating more intense hurricanes.

Changing Demographics – Before/After Andrew- Have students research the demographic changes and/or economic impact in Miami-Dade County as a result of Hurricane Andrew. Then have students compose a news report or documentary based on their findings.
Related Social Studies Benchmarks (grades 9-12)

**SS.912.G.1:** Understand how to use maps and other geographic representations, tools, and technology to report information.

**SS.912.G.1.4:** Analyze geographic information from a variety of sources including primary sources, atlases, computer, and digital sources, Geographic Information Systems (GIS), and a broad variety of maps.

**SS.912.G.2.3:** Use geographic terms and tools to analyze case studies of regional issues in different parts of the world that have critical economic, physical, or political ramifications.

**SS.912.G.3.2:** Use geographic terms and tools to explain how weather and climate influence the natural character of a place.

**SS.912.G.5.1:** Analyze case studies of how the Earth’s physical systems affect humans.

**SS.912.G.5.2:** Analyze case studies of how changes in the physical environment of a place can increase or diminish its capacity to support human activity.

**SS.912.G.6.1:** Use appropriate maps and other graphic representations to analyze geographic problems and changes over time.

**SS912.A.1:** Use research and inquiry skills to analyze American history using primary and secondary sources.

**SS.912.W.1.3:** Interpret and evaluate primary and secondary sources

**SS.912.W.1.6:** Evaluate the role of history in shaping identity and character.
Internet Resources

Geophysical Fluid Dynamics Laboratory – Global Warming and Hurricanes

FEMA.Gov- Youth Emergency Preparedness Curriculum Activity Packets
Grades 3-5 https://www.fema.gov/media-library-data/a09fa19c5355c01be9bf03125a785cb/FEMA_UE_TG_082613_508.pdf
Grades 9-12 https://www.fema.gov/media-library-data/ac2a3fd06796f89cd284dd3fefa4797/FEMA_HS_TG_082613_508.pdf

Follow that Hurricane – Activity packet for students to use in tracking hurricanes
https://aamboceanservice.blob.core.windows.net/oceanservice-prod/education/for_fun/FollowthatHurricane.pdf

History Miami- Hurricane Andrew: 25 Years Later Teacher Resource Guide https://portal-mail.dadeschools.net/owa/?ae=Item&t=IPM.Note&id=RgAAABSa5VJLhEksSs01tDwu3BwAYDhGQwbCZRoAPxbkte436AAAAUF%2fZAAAAYDhGQwbCZRoAPxbkte436AAAAWvAZAAAAJ


Interactive Hurricane Tracker: https://www.accuweather.com/en/hurricane/tracker


National Hurricane Center – Storm Surge Overview
http://www.nhc.noaa.gov/surge/

National Oceanographic and Atmospheric Association (NOAA) article- Hurricane Damage Potential
http://www.srh.noaa.gov/srh/jetstream/tropics/tc_potential.html

NPR- Hurricane Andrew’s Legacy – Like a Bomb in Florida

National Weather Service - article- Tropical Cyclone Safety
http://www.srh.noaa.gov/srh/jetstream/tropics/tc_safety.html

National Weather Service- NOAH- article El Niño
http://www.srh.noaa.gov/srh/jetstream/tropics/enso.html

National Weather Service (NOAA) Hurricane Safety Brochure
(Spanish Version) http://www.nws.noaa.gov/om/hurricane/resources/hurricane-safety_flyer_ESPANOL.pdf
New York Times Lesson Plan *In the Eye of the Storm*

**Orlando sentinel**  Miami faces greater hurricane danger than killer storm Andrew, study finds

**Wikipedia- Hurricane Andrew**
https://en.wikipedia.org/wiki/Hurricane_Andrew

**WLRN- Hurricane Andrew**  http://wlrn.org/term/hurricane-andrew

**WLRN- Remembering Andrew: Days of No ICE**  http://wlrn.org/post/remembering-andrew-days-no-ice
<table>
<thead>
<tr>
<th>K</th>
<th>W</th>
<th>L</th>
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</thead>
<tbody>
<tr>
<td>What I <em>know</em></td>
<td>What I <em>want</em> to know</td>
<td>What I <em>learned</em></td>
</tr>
</tbody>
</table>
Appendix: Elementary Background Reading: Hurricane Andrew

Hurricane Andrew began as a tropical wave off the western coast of Africa on August 14, 1992. As it moved across the Atlantic Ocean, its wind velocity increased. It first developed into a tropical depression and then a tropical storm. As it is the practice to give tropical storms a name, the storm was named “Andrew.” By August 22, the storm had intensified to reach hurricane force. Hurricane Andrew first hit the Bahamas. After passing over the Bahamas, the hurricane grew slightly weaker. But, it then gained strength over the warm waters east of Florida.

On the morning of August 24, 1992 Hurricane Andrew made landfall in southern Miami-Dade County as a Category 5 storm. Wind gusts over 160 miles per hour were recorded. A Category 5 hurricane is the highest level on the Saffir Simpson Wind Speed Scale. Thousands of homes in southern Miami-Dade were damaged or destroyed. Trees, and power poles were down, blocking roadways. People in some areas were without electricity for weeks, or even months. Many people were left temporarily homeless. As Andrew moved across the Everglades, the area sustained damage to vegetation and wildlife. After crossing Florida, Andrew had weakened to a Category 3 storm.

Hurricane Andrew intensified once again when it reached the warm waters of the Gulf of Mexico. Its’ continued path through the Gulf of Mexico would eventually bring it to landfall in New Orleans, Louisiana. The hurricane caused over $2.5 billion in damage in Florida. Most of the damage was due to the high winds.

Statistics from:
http://www.nhc.noaa.gov/outreach/history/#andrew
Vocabulary

Barometric Pressure
Eye
Eyewall
Hurricane
Latitude
Longitude
Meteorologist
National Hurricane Center
Saffir Simpson Scale
Storm Surge
Tropical cyclone
Tropical Depression
Tropical Storm
Wind Direction
Wind Shear
Wind Velocity
Appendix

Analyze a Photograph

Meet the photo

Quickly scan the photo. What do you notice first?

Type of photo (circle all that apply): Portrait  Landscape  Aerial/Satellite
Action  Architectural  Event  Family  Panoramic
Posed  Candid  Documentary  Selfie  Other

Is there a caption?

Observe its parts.

List the people, objects and activities you see.

<table>
<thead>
<tr>
<th>PEOPLE</th>
<th>OBJECTS</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Try to make sense of it.

Answer as best you can. The caption, if available, may help.

Who took this photo?

Where is it from?

When is it from?

What was happening at the time in history this photo was taken?

Why was it taken? List evidence from the photo or your knowledge about the photographer that led you to your conclusion.

Use it as historical evidence.

What did you find out from this document that you might not learn anywhere else?

What other documents or historical evidence are you going to use to help you understand this event or topic?

Document from: National Archives and Records Administration (public domain)
Anti-Discrimination Policy

Federal and State Laws

The School Board of Miami-Dade County, Florida adheres to a policy of nondiscrimination in employment and educational programs/activities and strives affirmatively to provide equal opportunity for all as required by:

**Title VI of the Civil Rights Act of 1964** - prohibits discrimination on the basis of race, color, religion, or national origin.

**Title VII of the Civil Rights Act of 1964 as amended** - prohibits discrimination in employment on the basis of race, color, religion, gender, or national origin.

**Title IX of the Education Amendments of 1972** - prohibits discrimination on the basis of gender.

**Age Discrimination in Employment Act of 1967 (ADEA) as amended** - prohibits discrimination on the basis of age with respect to individuals who are at least 40.

**The Equal Pay Act of 1963 as amended** - prohibits gender discrimination in payment of wages to women and men performing substantially equal work in the same establishment.

**Section 504 of the Rehabilitation Act of 1973** - prohibits discrimination against the disabled.

**Americans with Disabilities Act of 1990 (ADA)** - prohibits discrimination against individuals with disabilities in employment, public service, public accommodations and telecommunications.

**The Family and Medical Leave Act of 1993 (FMLA)** - requires covered employers to provide up to 12 weeks of unpaid, job-protected leave to "eligible" employees for certain family and medical reasons.


**Florida Educational Equity Act (FEEA)** - prohibits discrimination on the basis of race, gender, national origin, marital status, or handicap against a student or employee.

**Florida Civil Rights Act of 1992** - secures for all individuals within the state freedom from discrimination because of race, color, religion, sex, national origin, age, handicap, or marital status.

**Title II of the Genetic Information Nondiscrimination Act of 2008 (GINA)** - Prohibits discrimination against employees or applicants because of genetic information.

**Veterans are provided re-employment rights in accordance with P.L. 93-508 (Federal Law) and Section 295.07 (Florida Statutes), which stipulate categorical preferences for employment.**

**In Addition: School Board Policies 1362, 3362, 4362, and 5517** - Prohibit harassment and/or discrimination against students, employees, or applicants on the basis of sex, race, color, ethnic or national origin, religion, marital status, disability, genetic information, age, political beliefs, sexual orientation, gender, gender identification, social and family background, linguistic preference, pregnancy, and any other legally prohibited basis. Retaliation for engaging in a protected activity is also prohibited. **Rev. (05-12)**