

What causes a hurricane environmental sciences essay



**ASSIGN
BUSTER**

Hurricane Andrew
Martin Piette
Mrs. Piedmonte & Mr. Woodmansee
Learning Fair 6-1
May 8, 2013
Hurricane Andrew
Causes of a hurricane
Ocean water is at 80 degrees and it evaporates into the air and causes a storm
The moisture filled air is about three miles away from the earth
The eye begins to form and the wind starts to speed up
Winds start to circle and spin in the air and causes a storm
II. How hurricanes are measured
A. Saffir-Simpson scale is how they are categorized by strength
B. Category 1 74-95 mile per hour winds - minimal
C. Category 2 is 96-110 mile per hour winds - moderate
D. Category 3 is 111-130 mile per hour winds - extensive
E. Category 4 is 131-155 mile per hour winds - extreme
F. Category 5 is 155+ mile per hour winds - catastrophic
III. The warning signs of a hurricane
The government tracks them
Special airplanes are used
Satellites are used
The instruments monitor the air pressure
Speed and size of the hurricane is monitored
IV. Hurricane Andrew
Andrew hit the Bahamas first on August 23, 1992. Andrew's path went through Florida, Mississippi, Alabama, and Georgia
Andrew was a category 5 hurricane
The hurricane lasted from August 23 to August 28
Andrew caused 65 deaths - 20 direct deaths and 45 indirect deaths
Andrew caused 30 billion dollars in destruction
Peoples' lives were turned upside down. They were without power, water, shelter, food, and other basic needs.
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Hurricane Andrew was one of the worst disasters for its time. Andrew destroyed over 100, 00 houses, left 250, 000 people homeless, and left 1. 4 million people without electricity. It cost over 30 billion dollars in recovery and killed 64 people in all. (Sherrow, Victoria. Hurricane Andrew: Nature's Rage. Springfield, NJ: Enslow, 1998. Print. 36-42.)
What causes a hurricane? A hurricane occurs when an area of
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low pressure is formed. A storm clusters around the pocket of the low pressure area. At the surface of the water it becomes warm, the air begins to revolve. The pocket sometimes becomes the eye of a hurricane. When wind speeds are 25 to 39 miles per hour the storm is called a tropical depression. (Gibson, Karen Bush. *The Fury of Hurricane Andrew*, 1992. Hockessin, DE: Mitchell Lane, 2006. Print, 10-11.) When winds are between 39 and 74 miles per hour a storm is categorized as a tropical storm. Now meteorologists can track it better. The storm goes counter-clockwise and the winds blow faster at the edge. The harsh wind causes the warm water to become very turbulent. The surface water evaporates releasing even more moisture into the warm air and this fuels the growing storm. (Gibson, Karen Bush. *The Fury of Hurricane Andrew*, 1992. Hockessin, DE: Mitchell Lane, 2006. Print, 10-11.) A giant circular windstorm with wind blowing at least 75 miles per hour is an official hurricane. A typical hurricane hovers over 50,000 feet in the air. A hurricane can span over hundreds of miles. These giant storms cause terrible damage when they come ashore. (Harper, Kristine. *Hurricane Andrew*. New York: Facts On File, 2005. Print. 11) How are hurricanes measured?

Hurricanes are measured on the Saffir-Simpson Scale. Hurricanes are based on their strength and wind speeds. A category 1 hurricane occurs when winds are 74-95 miles per hour with minimal property damage. A category 2 hurricane occurs when winds are 96-110 miles per hour and there is moderate damage. A category 3 hurricane occurs when winds are 111-130 mile per hour with extensive damage. A category 4 hurricane has extreme damage with 131-155 mile per hour winds. A category 5 hurricane has 155+ mile per hour winds and causes catastrophic damage. (Gibson, Karen

Bush. *The Fury of Hurricane Andrew*, 1992. Hockessin, DE: Mitchell Lane, <https://assignbuster.com/what-causes-a-hurricane-environmental-sciences-essay/>

2006. Print, 9-10.) What are the warning signs of a hurricane? The warning signs of a hurricane are measured in several ways, including aircraft reconnaissance, ocean buoys, and satellite imagery. The best method of getting physical measurement of hurricane wind speeds is a small device called a dropsonde. A dropsonde is a sensor that measures temperature, pressure, wind and humidity. The sensor is attached to a parachute and is dropped from an airplane. The sensor sends data back to the airplane that dropped it. The data from the dropsonde is used by meteorologists to determine measurements in and around a hurricane. (Gibson, Karen Bush. *The Fury of Hurricane Andrew*, 1992. Hockessin, DE: Mitchell Lane, 2006. Print, 12-13.) Authorities will issue an advisory or bulletin warning when there is a tropical cyclone. The warning gives information on the tropical cyclone's development. The local Meteorological Service, with the National Disaster Organization, issues hurricane advisories, watches and warnings. These are broadcast on local or national TV, radio stations, and internet. The National Hurricane Centre issues a forecast of the big picture but local meteorologist forecast for a specific area. The local meteorologist is the only one with the authority to issue a watch or warnings for a specific area. Advisories warn us of when severe weather conditions are expected. "Andrew." Andrew. N. p., 13 Sept. 1992. Web. 15 Jan. 2013. What happened during Hurricane Andrew? Hurricane Andrew began as a tropical wave off the coast of Africa. The air was moist and hot and the water temperature was warm. These are perfect conditions for forming a hurricane. It moved north-westward and headed over the Southeastern United States. It moved onshore in southern Florida near Homestead. It took four hours for Andrew to move across southern Florida. Andrew continued to move west into the Gulf

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of Mexico. Then, Hurricane Andrew moved northwest and then north and made landfall in Louisiana. (Sherrow, Victoria. Hurricane Andrew: Nature's Rage. Springfield, NJ: Enslow, 1998. Print. 17-23.)The tropical wave off the coast of Africa began on August 16, 1992. The storm was upgraded to a hurricane on August 22 and became a category 4 hurricane on August 23. The hurricane weakened on August 24 when it moved over the Bahamas. After entering the Gulfstream it intensified as it approached Florida. Hurricane Andrew made landfall in Dade County, Florida on August 24. Hurricane Andrew made landfall a second time in Louisiana on August 26 as a category 3 hurricane. Andrew then moved over the Mid-Atlantic States on August 28. In 2004, the Hurricane Research Division of the National Oceanic and Atmospheric Administration re-categorized Andrew to a category 5 hurricane. ("Hurricanes in History." N. p., n. d. Web. 24 Apr. 2013 .)Witnesses said that Florida looked like a war zone after Hurricane Andrew. Trees were lying in the street and cars were floating in the ocean. Buildings were in piles of rubble and airplanes were crushed like toys. Roads were cluttered with telephone poles and debris. Andrew caused 65 deaths and 30 billion dollars in destruction. Andrew left 1. 4 million people without electricity. It estimated that one-hundred-thousand homes were destroyed and two-hundred-fifty-thousand people were left without a home. (Gibson, Karen Bush. The Fury of Hurricane Andrew, 1992. Hockessin, DE: Mitchell Lane, 2006. Print. 23-26.)Work Cited" Andrew." Andrew. N. p., 13 Sept. 1992. Web. 15 Jan. 2013. . Gibson, Karen Bush. The Fury of Hurricane Andrew, 1992. Hockessin, DE: Mitchell Lane, 2006. Print. Harper, Kristine. Hurricane Andrew. New York: Facts On File, 2005. Print." Hurricanes in History." Hurricanes in History. N. p., n. d. Web. 24 Apr. 2013. . Sherrow, <https://assignbuster.com/what-causes-a-hurricane-environmental-sciences-essay/>

Victoria. Hurricane Andrew: Nature's Rage. Springfield, NJ: Enslow, 1998.

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