



# Tornadoes

A tornado is a column of wind that spins very fast. The winds from a tornado can reach as much as three hundred miles per hour. A tornado is capable of flattening everything in its path, and can cause the total destruction of the area where it touches down. Most tornadoes in the U.S. form from northern Texas to South Dakota, and from Missouri to the Rocky Mountains, and area known as Tornado Alley.

A tornado can form during a thunderstorm or a hurricane. When a large thunderstorm forms in a cumulonimbus cloud, a change of wind direction and wind speed at a high altitude causes the air to begin to swirl horizontally. This horizontal spinning is then tipped over as rising air from the ground pushes up on the swirling air, causing the spinning air to take on a funnel shape. The funnel of swirling air continues sucking up warm air from the ground and elongates. When the funnel touches the ground, it is a tornado.

While tornados are usually funnel-shaped, they can also look like a wedge in the sky. Tornadoes are usually about 500 feet in diameter, but they can also be as narrow as a few feet or as large as two miles across. Wind speeds vary too. They can be anywhere between 65 and 250 miles per hour. Tornadoes can also vary in color. They can appear white, gray, black, blue, red, or green; some, however, can't be seen at all. The direction of the rotation of a tornado depends on where it occurs. The Earth's rotation around its axis causes winds in the northern hemisphere to be diverted to the right (counterclockwise), while winds in the southern hemisphere are diverted to the left (clockwise).

There are different kinds of tornadoes. A supercell is a huge thunderstorm that last for a long time. Supercells produce some of the biggest and most destructive tornadoes. A waterspout is a tornado that forms over water, and it usually falls apart when it reaches land. A landspout is a tornado that forms over land. Landspouts form independently of thunderstorms and are generally weak.

Name \_\_\_\_\_ **Natural Disasters**

### **QUESTIONS: Tornadoes**

Circle the correct answer.

1. What is a tornado?
  - A. a column of wind that spins very fast
  - B. a column of wind that forms over land
  - C. a column of wind that forms over water
  - D. a column of wind at least 500 feet in diameter
  
2. Which of the following is a state where most tornadoes occur?
  - A. Maryland
  - B. California
  - C. Texas
  - D. Maine
  
3. Which of the following shapes can a tornado have?
  - A. funnel
  - B. disc
  - C. wedge
  - D. A and C
  
4. What is the range of a tornado's diameter?
  - A. 65 to 250 miles in diameter
  - B. 65 to 250 feet in diameter
  - C. a few feet to two miles in diameter
  - D. all tornadoes are 500 feet in diameter
  
5. Which of the following is NOT a type of tornado?
  - A. supercell
  - B. megacell
  - C. landspout
  - D. waterspout



# Hurricanes

A hurricane is a powerful, rotating storm that begins out over the Atlantic ocean, when the warm, moist air over the tropical water rises and is replaced by cooler air. This cooler air then gets warmed and starts to rise, and the cycle results in the formation of massive storm clouds. The spinning of the Earth causes these storm clouds to spin. When there is enough warm water, the cycle will continue, wind speeds will increase, and a hurricane forms. Hurricanes are called by different names depending on the part of the world where they occur. In the Indian Ocean they are called cyclones. In Southeast Asia they are known as typhoons.

In order to be classified as a hurricane, rather than a tropical storm, the hurricane must have winds of a sustained speed of at least 74 miles per hour, and an area of low air pressure in its center called the eye. The high winds spin around this center. It is generally calm and clear at the eye of the storm, however the most dangerous part of a hurricane is the area at the edge of the eye, known as the eye wall. The eye wall is made up of very heavy clouds, and the fastest-moving winds are located here. Winds at the eye wall can reach 155 miles per hour. Hurricanes are categorized according to their wind strength.

## HURRICANE CATEGORIES

Category 1 - 74 to 95 mph

Category 2 - 96 to 110 mph

Category 3 - 111 to 129 mph

Category 4 - 130 to 156 mph

Category 5 - 157 or higher mph

The deadliest hurricane in U.S. history was the Great Galveston hurricane, also known as the Great Storm of 1900, which is estimated to have killed as many as 12,000 people. Other notable U.S. hurricanes include Hurricane Maria (2017, killing 5,000 in Puerto Rico), the Okeechobee Hurricane (1928, killing 3,000 in Florida), and Hurricane Katrina (2005, killing almost 2,000).

Name \_\_\_\_\_ **Natural Disasters**

### **QUESTIONS: Hurricanes**

1. What is a hurricane?
2. Why do the storm clouds that eventually become a hurricane begin to spin?
3. What are two other names for hurricanes?
4. What is a storm called if its winds fail to reach at least 74 miles per hour?
5. What is the center of a hurricane called?
6. What is the most dangerous part of a hurricane?
7. How are hurricanes categorized?
8. What was the deadliest hurricane in U.S. history?
9. Which hurricane was more deadly, Hurricane Maria or Hurricane Katrina?