

Name: _____

What are Tornadoes?



In the United States there are more than 1000 tornadoes each year, which is more than anywhere else on Earth. Tornadoes, sometimes referred to as twisters, are sudden and they can be very destructive. A tornado has extremely fast rotating winds that form a funnel with average wind speeds between 30 and 60 mph (*up to 90 KPH*).

However, the more violent types can have much higher windspeeds. Tornadoes have the strongest winds on earth, even stronger than hurricanes. Their high speed winds can knock buildings and trees down and can even move and tip over vehicles! Large tornadoes come from cumulonimbus clouds which are often called the thunderstorm clouds. In fact, tornadoes need the same kind of conditions to happen as severe thunderstorms need. A tornado begins as a thunderstorm but gets referred to as a supercell storm. However, there are other conditions that have to occur for the tornado to occur. These other steps include the warmer air rising higher and higher and warm air is lighter than cool air so it rises very quickly and gains speed, a change in wind direction will cause the winds to rotate like a vortex (circular motion). With all the right conditions, the funnel grows larger and becomes faster, eventually touching the ground. However, when a tornado forms over the ocean or water, it's called a water spout. It's not always easy to forecast when a tornado will happen. If a tornado watch or warning has been issued, it is important to have an emergency plan. It is not safe to be outside during a tornado. Go to your safe room and make sure you have an emergency kit in the event power goes out.

Questions:

- ❶ In your own words, define the word tornado.
- ❷ What conditions cause tornadoes to happen?
- ❸ Why are tornadoes called severe or extreme weather events?
- ❹ How can you prepare for a tornado?
- ❺ Which winds are faster, tornado winds or hurricane winds?