

# Tornadoes – Nature’s Most Violent Storms

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## Pre-reading

### Questions:

- What do you know about tornadoes?
- What would you like to know about them?

### Definitions:

- Excess/Exceed – to go beyond; be more than

## Reading

18 Tornadoes occur in many parts of the world. However, the most destructive ones are found in the United  
35 States east of the Rocky Mountains. Peak tornado months in the southern states are March through May,  
46 while peak months in the northern states are during the summer.

66 Tornadoes are most likely to occur between 3:00 and 9:00 p.m. but have been known to occur at all hours  
85 of the day or night. In an average year, 800 tornadoes are reported nationwide, resulting in 80 deaths and  
over 1,500 injuries.

88 A tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground.  
106 The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 miles per hour or  
124 more. Paths of damage can be in excess of one mile wide and fifty miles long. Once a tornado in Broken  
145 Bow, Oklahoma, carried a motel sign 30 miles and dropped it in Arkansas!

158 Specific weather conditions consistent with thunderstorm activity produce tornadoes. Thunderstorms  
168 develop in warm, moist air in advance of eastward moving cold fronts. These thunderstorms often produce  
184 large hail, strong winds, and tornadoes.

190 Before thunderstorms develop, a change in wind direction and an increase in wind speed create an  
206 invisible, horizontal spinning effect in the lower atmosphere. Rising air within the thunderstorm updraft tilts  
221 the rotating air from horizontal to vertical. An area of rotation 2 – 6 miles wide now extends through much  
241 of the storm. Most strong and violent tornadoes form within this area of strong rotation.

256 Tornadoes take on many shapes and sizes. They are categorized as weak, strong, or violent. Weak  
272 tornadoes account for 69% of all tornadoes. Their lifetime is one to ten minutes, with winds less than 110  
291 miles per hour. Strong tornadoes account for 29% of all tornadoes. They may last twenty minutes or longer,  
309 with winds 110 – 205 miles per hour. Violent tornadoes account for only 2% of all tornadoes, but are the  
329 cause of 70% of all tornado deaths. These tornadoes can exceed one hour in length, with winds greater than  
348 205 miles per hour.

352 There are many myths surrounding tornadoes and tornado safety. One is that areas near rivers, lakes, and  
369 mountains are safe from tornadoes. The fact is no place is safe from tornadoes. In the late 1980’s, a tornado  
389 swept through Yellowstone National Park leaving a path of destruction up and down a 10,000 foot mountain.

406 Another common myth is that windows should be opened before a tornado approaches to equalize  
421 pressure. Opening windows is not a good idea. It allows damaging winds to enter the structure. If a tornado  
440 is coming your way, leave your windows alone and quickly get to a safe place.

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## Understanding

1. What is the difference between a myth and a fact? \_\_\_\_\_  
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2. How or why does a tornado form? \_\_\_\_\_  
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3. What does horizontal mean? \_\_\_\_\_  
\_\_\_\_\_
4. What does vertical mean? \_\_\_\_\_  
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5. What kind of tornado causes the most deaths? \_\_\_\_\_  
\_\_\_\_\_
6. Which tornadoes are most common? \_\_\_\_\_  
\_\_\_\_\_
7. What's the range of wind speed tornadoes can produce? \_\_\_\_\_  
\_\_\_\_\_
8. List some words from the text that describe tornadoes. \_\_\_\_\_  
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## Writing

Option A: Summarize this reading in your own words.

Option B: Have you ever seen a tornado? What did it look like? How did you protect yourself from it?

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