

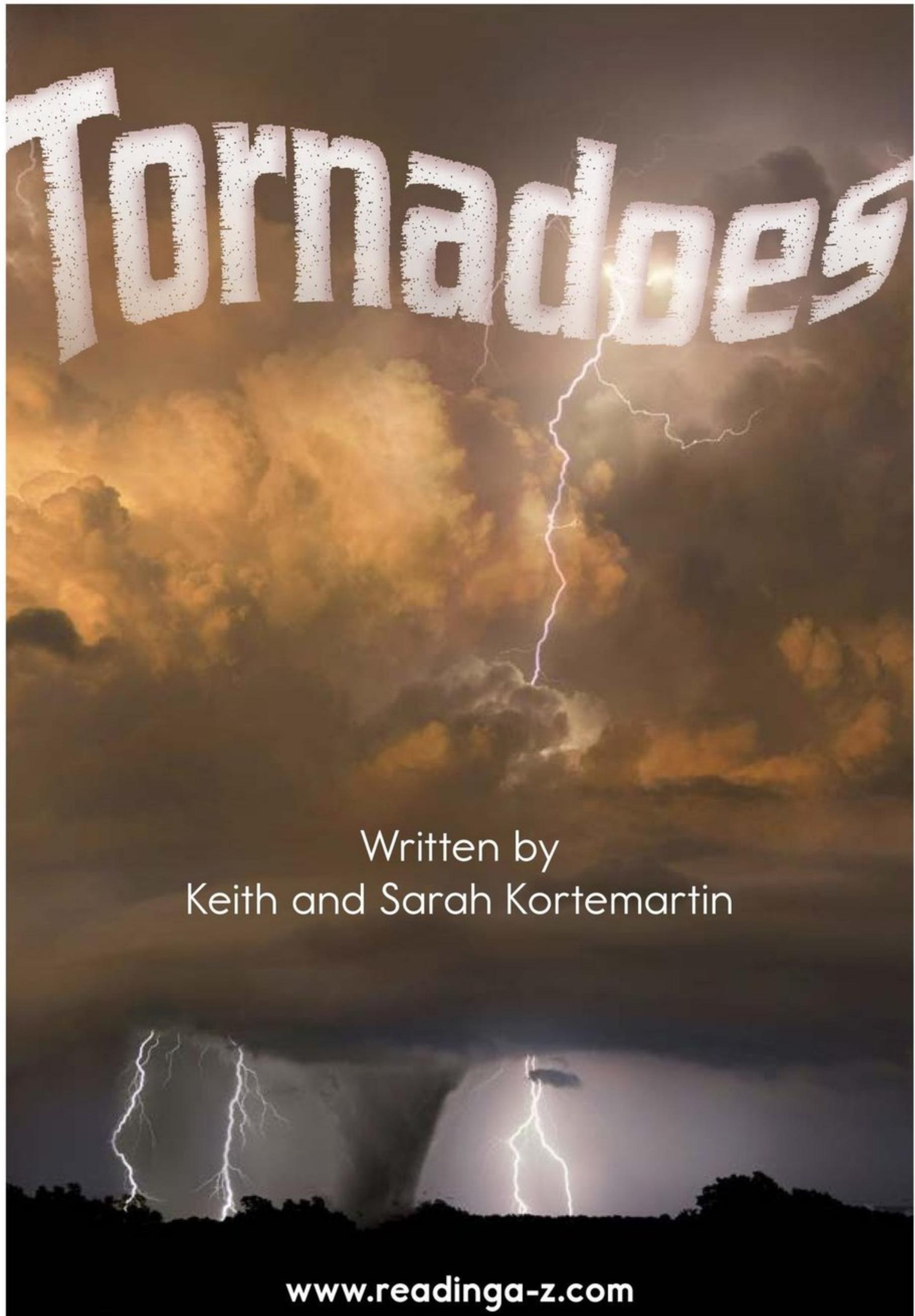
LEVELED Book • J

# Tornadoes

MULTI  
level  
J•M•P

Written by Keith and Sarah Kortemartin

[www.readinga-z.com](http://www.readinga-z.com)



Written by  
Keith and Sarah Kortemartin

[www.readinga-z.com](http://www.readinga-z.com)

## Focus Question

What are tornadoes, and why  
are they dangerous?

# Words to Know

EF Scale

strike

funnel

supercells

moist

tornadoes

## Photo Credits:

Front cover: © Jason Politte/Alamy Stock Photo; back cover: © Shalyn Phillips/Demotix/Corbis; title page: © Masterfile/Corbis; page 3: © A. T. Willett/Alamy Stock Photo; page 4: © Martin Haas/Dreamstime.com; page 5: © Mike Hollingshead/Corbis; page 6: © Eric Nguyen/Corbis; page 8 (background): © OAR/ERL/National Severe Storms Laboratory (NSSL); page 10: © Kim Johnson Flodin/AP Images; page 11: © Dennis MacDonald/age fotostock/SuperStock; page 12 (top): © Mike Theiss/National Geographic Creative; page 12 (bottom): © Tom Grundy/123RF; page 13: © St Petersburg Times/ZUMAPRESS/Newscom; page 14: © Jim Reed/Corbis; page 15: © 68/Ocean/Corbis

Tornadoes  
Level J Leveled Book  
© Learning A-Z  
Written by Keith and Sarah Kortemartin  
  
All rights reserved.  
[www.readinga-z.com](http://www.readinga-z.com)

## Correlation

LEVEL J	
Fountas & Pinnell	J
Reading Recovery	17
DRA	18



## Table of Contents

Introduction .....	4
How Tornadoes Form .....	5
Measuring Tornadoes .....	8
Where Tornadoes Form .....	9
Tornado Safety .....	11
Conclusion .....	15
Glossary .....	16



A tornado went through this house's roof and walls, and it turned the car upside down.

## Introduction

What can lift roofs from buildings  
and sweep houses into the air?

**Tornadoes** can!

Tornadoes come in many sizes.

Some tornadoes are only a few  
feet (1 meter) across.

Others are more than a mile  
(1.6 km) wide.

Some tornadoes touch down  
for a short time.

Others travel for hundreds of miles.

## How Tornadoes Form

Why do tornadoes happen?

Scientists are not sure.

Tornadoes come from giant thunderstorms called **supercells**.

A supercell happens when warm, **moist** air rises to mix with cold, dry air.



A supercell thunderstorm moves across Nebraska in June 2004. The thunderstorm led to a few tornadoes.



This funnel cloud became a strong tornado that hit Kansas in 2004.

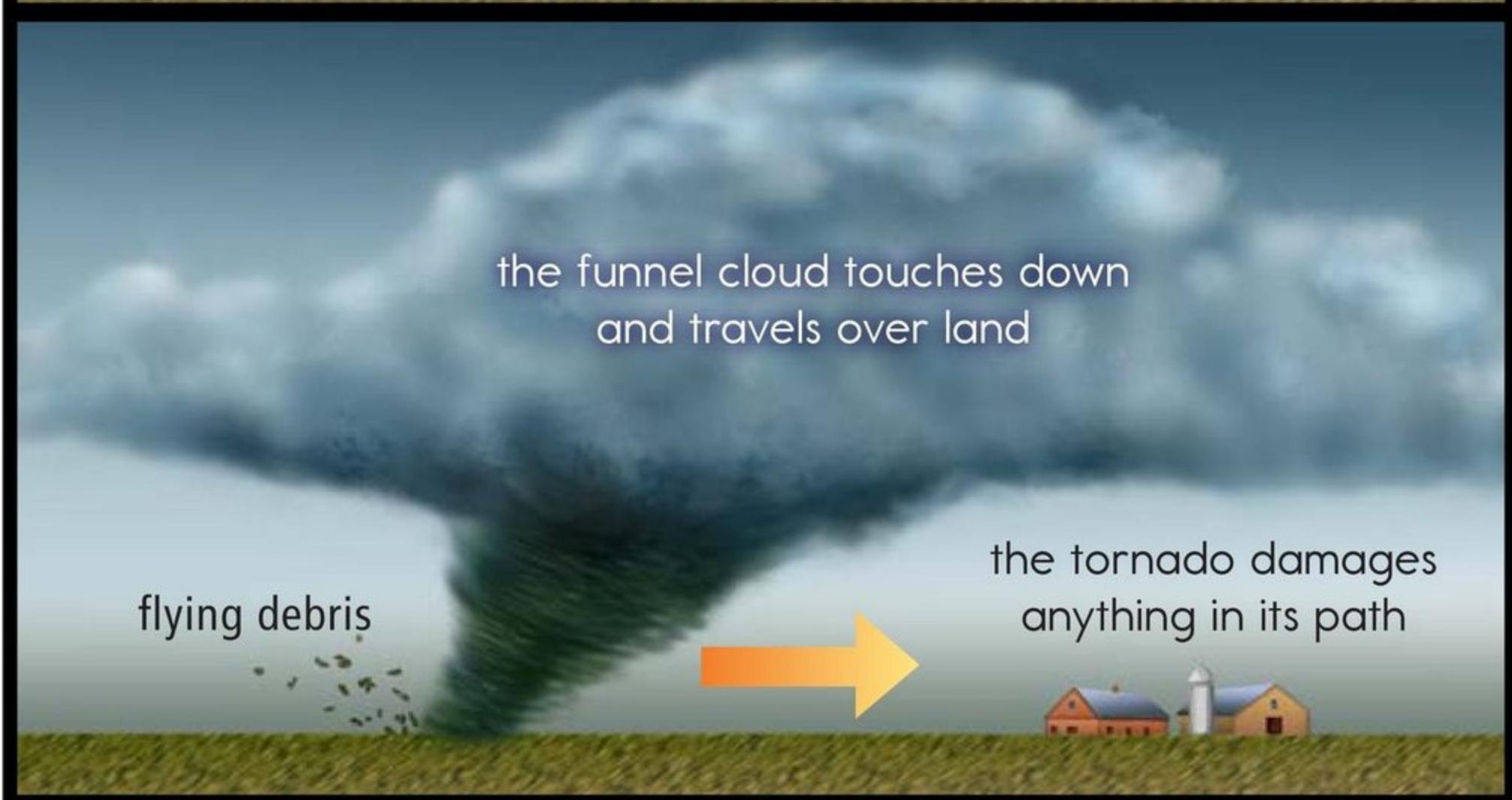
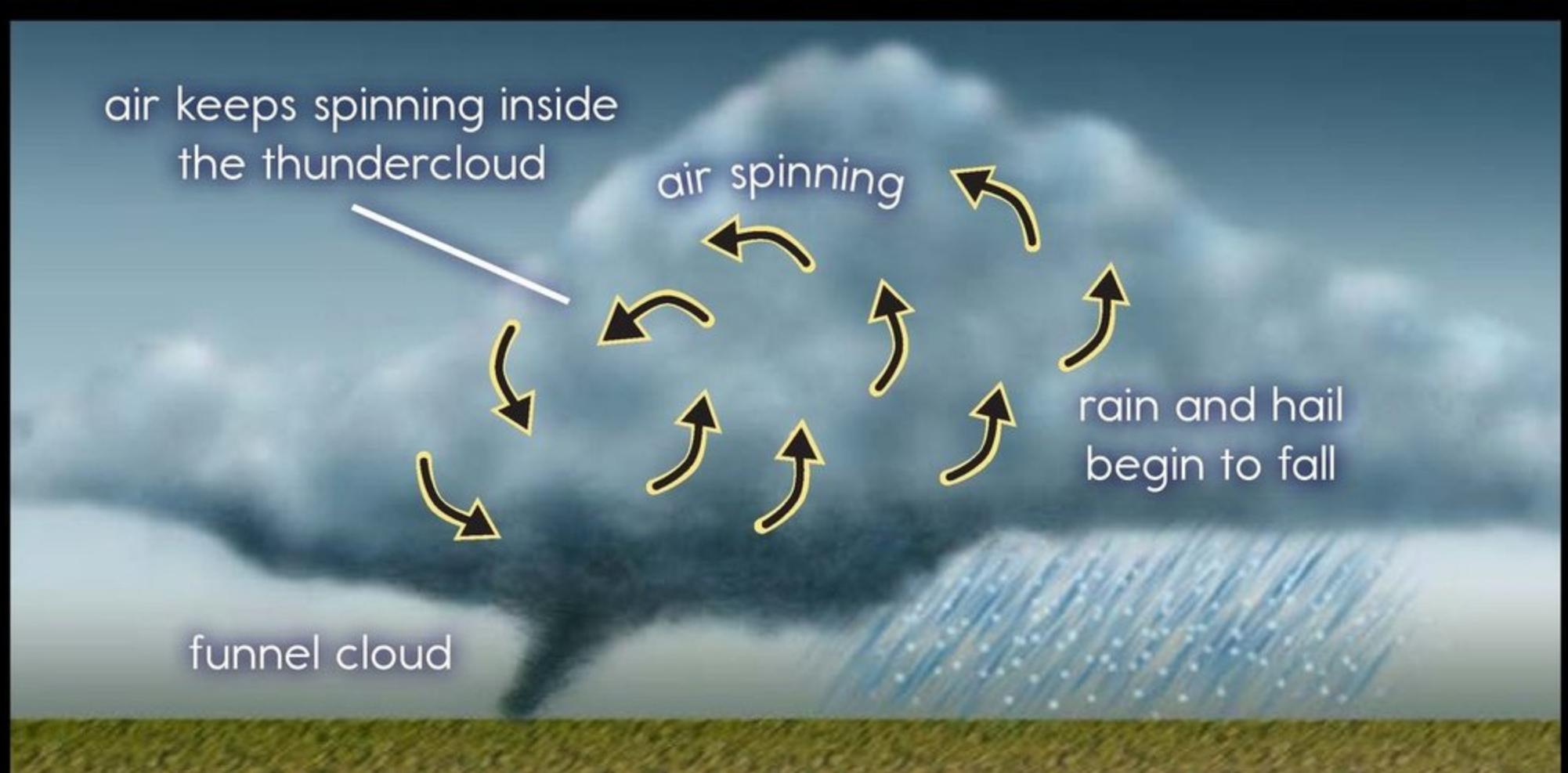
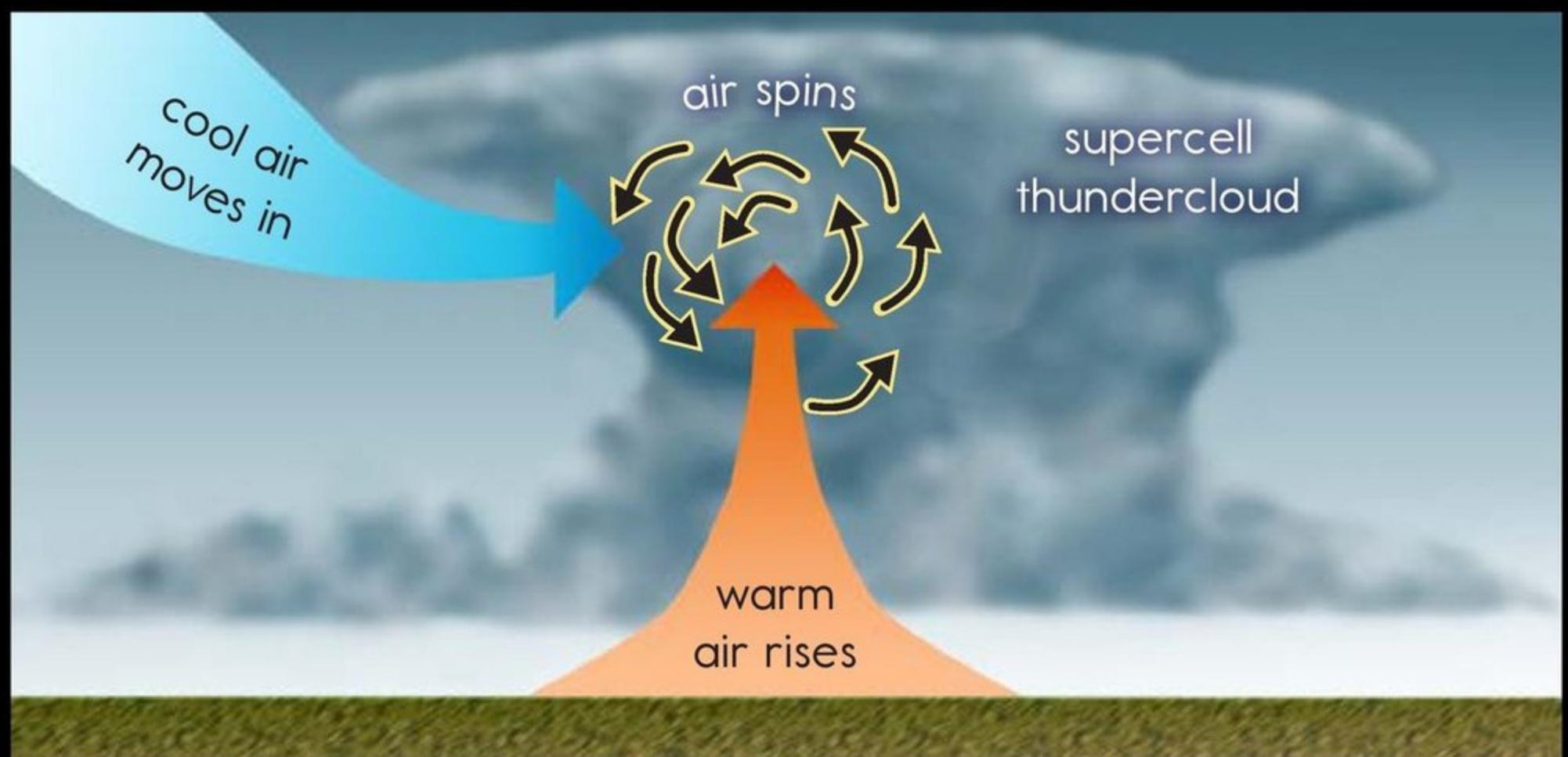
The mixing of cold and warm air causes the air to spin.

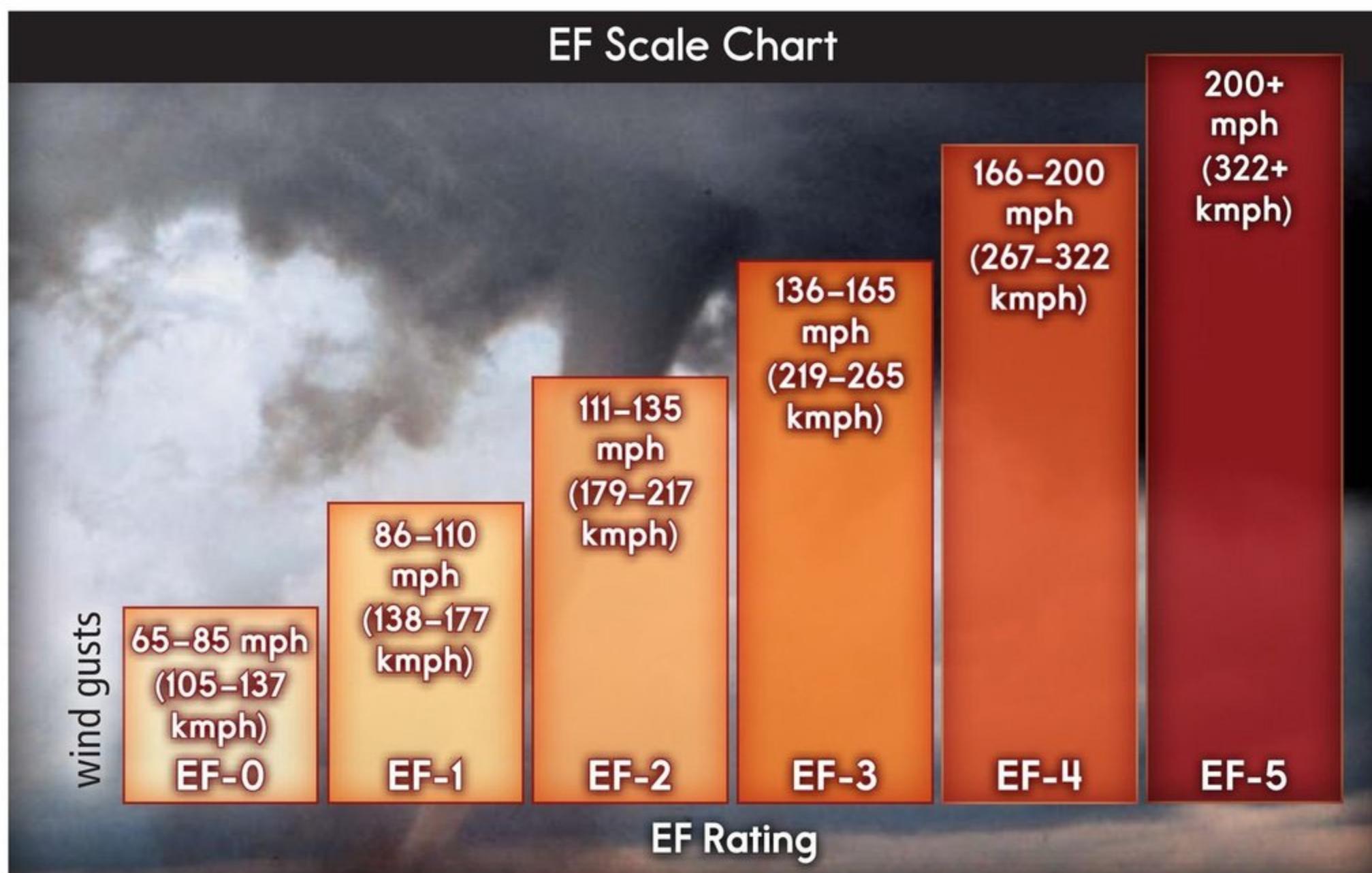
The spinning wind turns into a cloud in a **funnel** shape.

As the cloud turns, the wind becomes stronger.

When the funnel cloud touches the ground, it is a tornado.

## How a Tornado Forms





## Measuring Tornadoes

Scientists have a way to measure the strength of tornadoes.

They look at the harm caused by a tornado.

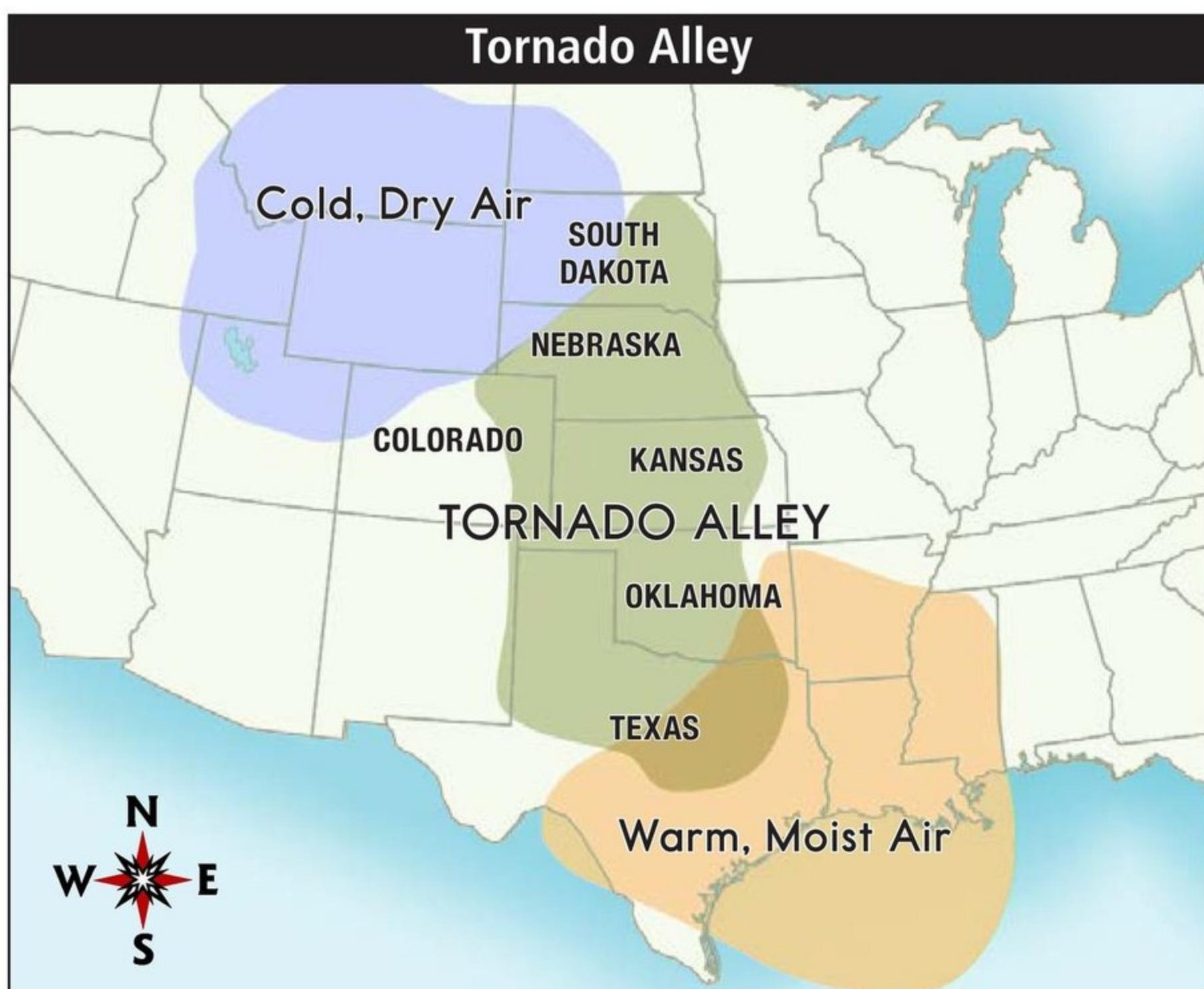
They use the amount of harm to estimate the wind speed.

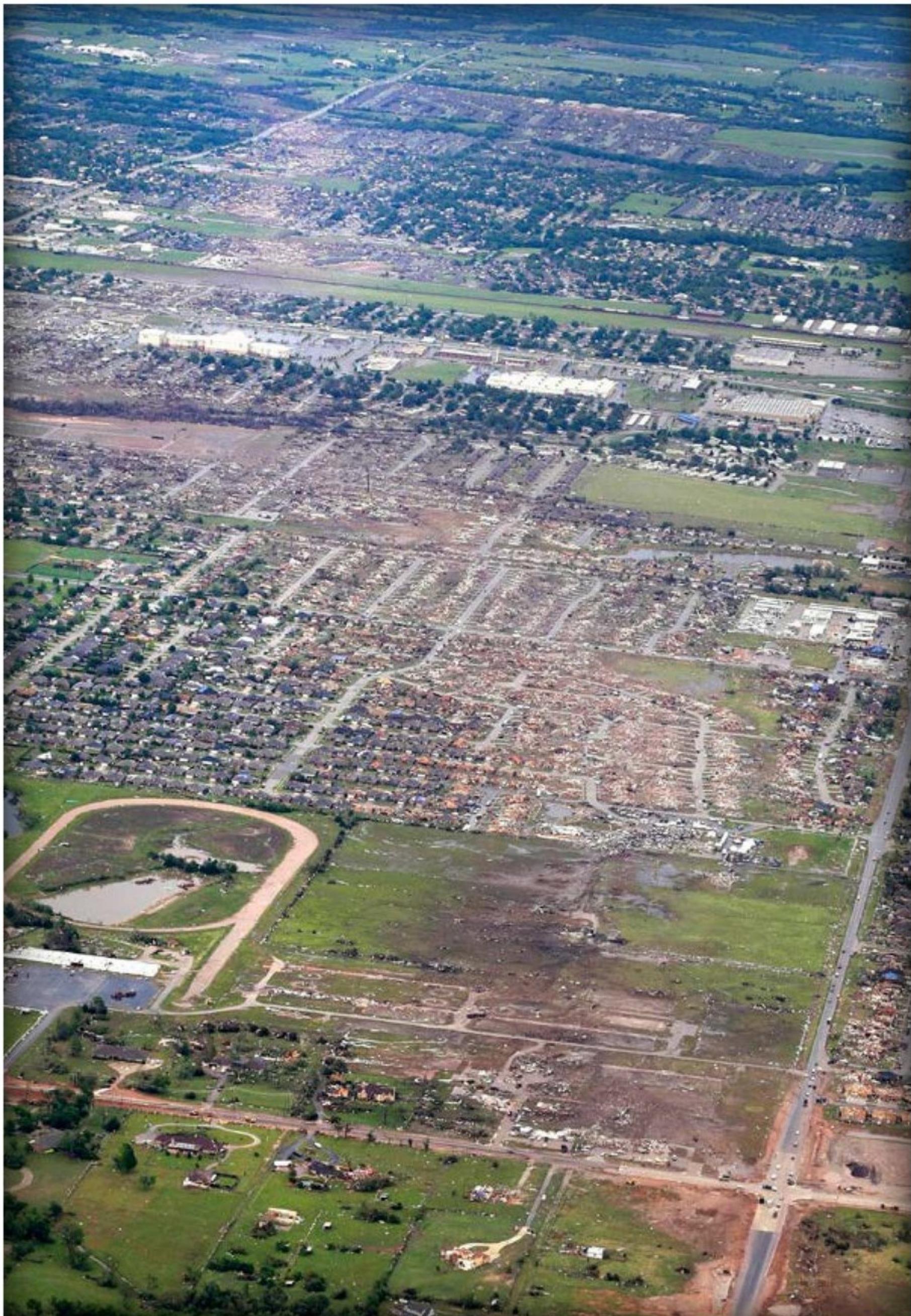
They use a special scale called the **EF Scale**.

The EF Scale measures the strength of the tornado.

## Where Tornadoes Form

Tornadoes may be hard to measure, but scientists have a good idea where they'll strike. It's true that a tornado can hit anywhere in the world at any time. Most tornadoes happen in the central part of the United States. This area is called Tornado Alley.





The giant tornado that hit Moore, Oklahoma, in 2013 left behind a clear path.

More than one thousand tornadoes strike Tornado Alley each year.

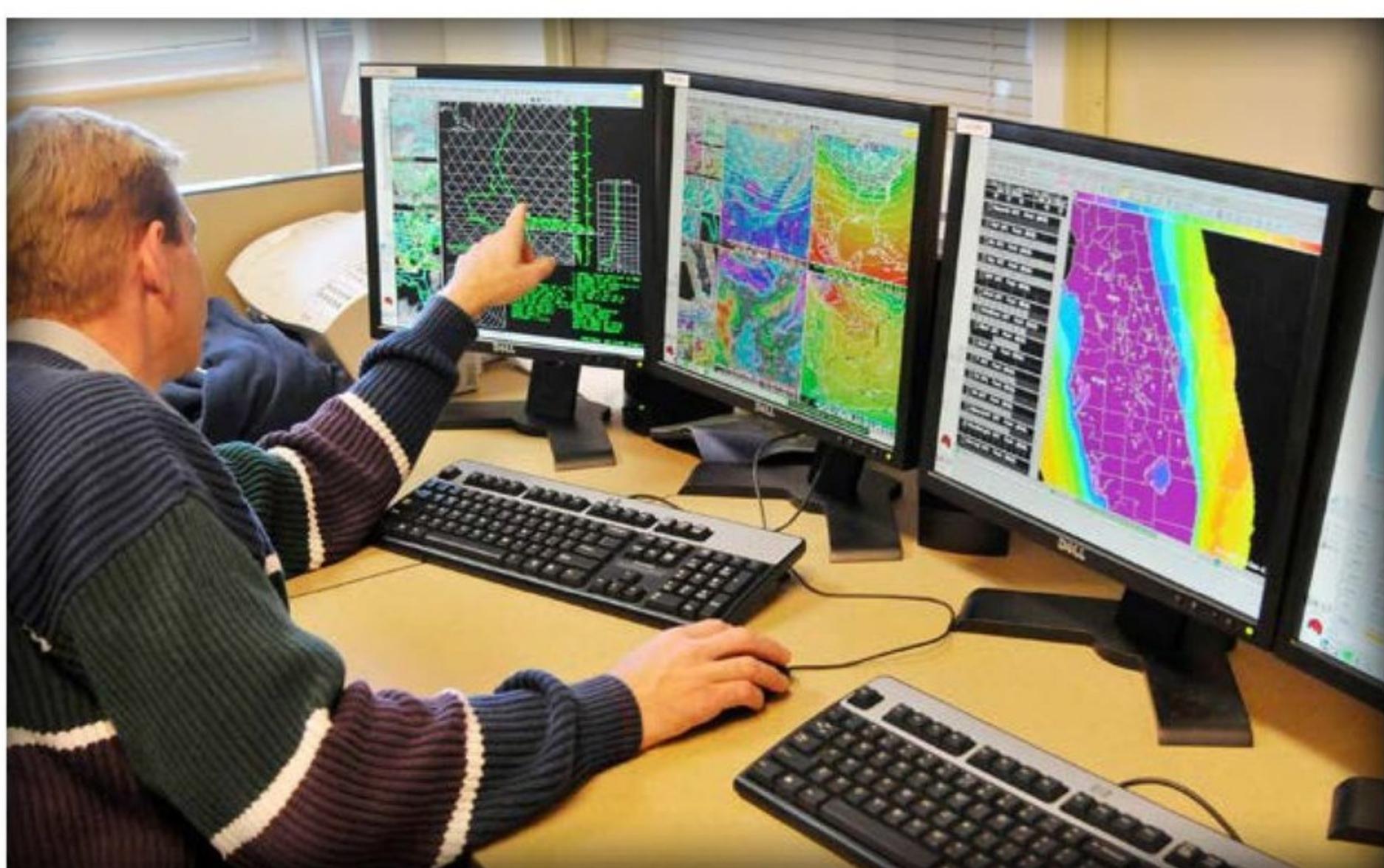
# Tornado Safety

There is no way to be sure that a tornado will strike.

The National Weather Service (NWS) tries to help people stay safe during tornadoes.

If they put out a *tornado watch*, a tornado might strike.

If they put out a *tornado warning*, a tornado has been spotted.



Weather scientists study weather maps to try to spot when a tornado will strike next.



A tornado destroyed an entire house, but the underground shelter next to the house was not harmed.

If there is a tornado warning,  
it's important to  
get to a safe place.  
Go indoors.

The safest place  
is a basement.

If you can't get to a  
basement, go into a  
closet or bathroom.

Stay away from windows.



This sign tells people that a shelter is nearby where they can find safety during a tornado strike.

The spinning air in a tornado  
makes things fly around.

This can be dangerous.

It's always important to protect  
your head.

You should get close to the ground.

Go under a desk or table.

You can even lie down in a bathtub.



Students practice for a tornado strike by going into a hallway  
and covering their heads.

It is not safe to stay in a mobile home in a tornado.

If you are in a tall building, go to the stairs.

If you are in a car, wear your seatbelt and lean forward.

If you are outside, lie down on the ground.



A tornado that hit Kansas in 2003 was so powerful that it caused a child's bicycle to wrap around a tree.

## Famous Tornadoes

- 🌪 A tornado in 1925 traveled more than 300 miles (483 km) through Missouri, Illinois, and Indiana. It killed 695 people, the highest number of people killed by a tornado in U.S. history.
- 🌪 In 1992, a tornado in Mississippi carried a baby up into the air and left the child hanging from the branch of a tree. The baby was hurt but lived.
- 🌪 In March 2012, a giant tornado swept through Henryville, Indiana. It was huge—150 yards (138 m) wide—and traveled a far distance—52 miles (84 km).



A tornado moves quickly across an open field.

## Conclusion

Tornadoes are amazing—and scary—examples of the power of nature.

People still have many questions about tornadoes.

What causes a tornado?

What is it really like inside a tornado?

Maybe we will find out one day.

## Glossary

<b>EF Scale</b> (n.)	a way of measuring and rating tornadoes from 0 to 5 based on their wind speeds and the damage they cause; Enhanced Fujita Scale (p. 8)
<b>funnel</b> (n.)	a cone-shaped tube that is wider at the top and is often used to pour liquid or powder into a small opening (p. 6)
<b>moist</b> (adj.)	slightly wet; damp (p. 5)
<b>strike</b> (v.)	to happen suddenly or appear (p. 9)
<b>supercells</b> (n.)	large rotating thunderclouds that reach high into the sky and often produce tornadoes, hail, and lightning (p. 5)
<b>tornadoes</b> (n.)	fast-spinning, funnel-shaped clouds that touch Earth's surface (p. 4)

# Tornadoes

A Reading A-Z Level J Leveled Book

Word Count: 438

## Connections

### Writing

Write a newspaper article for children about tornadoes. Include facts from the book in your article.

### Social Studies and Art

Make a poster explaining how to stay safe during a tornado. Share your poster with your class.

The logo for Reading A-Z features the word "Reading" in a red, sans-serif font. The letter "A" is stylized with a small sun-like shape above it, and the letter "Z" is also stylized. The entire logo is set against a background of a large, dark, swirling tornado.

Visit [www.readinga-z.com](http://www.readinga-z.com)  
for thousands of books and materials.