

# Chapter 5 – Earth's Weather

## Lesson 4 – Severe Weather



# What causes severe weather?

- Weather is affected by air masses.
- **air mass**: a large amount of air that has similar temperature and humidity throughout



# What causes severe weather?

- The meeting of two air masses is called a **front**.
- **warm front**: a warm air mass moves over a cold air mass (light rain or snow)
- **cold front**: a cold air mass moves under a warm air mass (storms)

# What causes thunderstorms?

- **thunderstorm**: a rainstorm with thunder and lightning



# What causes thunderstorms?

- In a rainstorm, water particles can rub together, causing static electricity in the cloud.
- Lightning happens when the electricity jumps from the cloud.













# What are tornadoes?

- **tornado**: a spinning, funnel-shaped cloud with winds up to 299 miles per hour

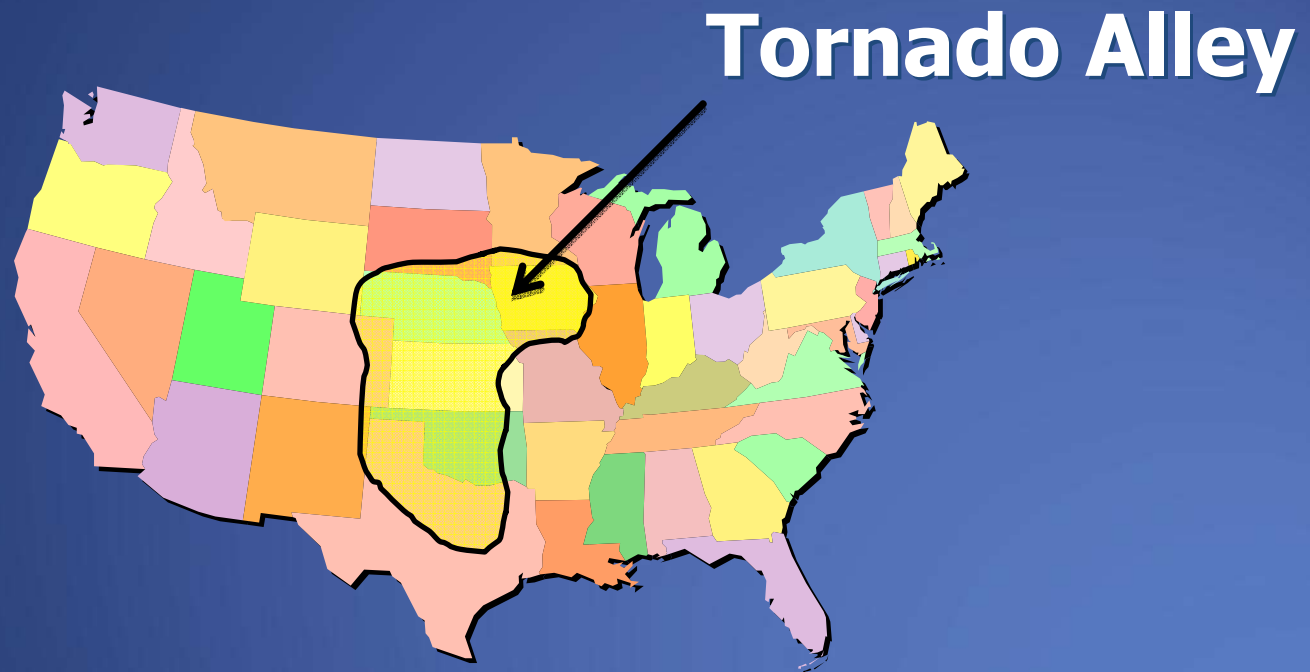


# **What are tornadoes?**

- 1. Warm air moves upward in a thunderhead.**
- 2. A funnel is formed when air starts spinning in the cloud.**
- 3. The funnel cloud becomes a tornado when it touches the ground.**

# What are tornadoes?

- Tornadoes are most common in Tornado Alley.



# What are tornadoes?

- A tornado is an example of a cyclone.
- **cyclone**: a storm with low pressure at its center and spinning winds.
- Key point:
  - **Low pressure = bad weather**

# What are hurricanes?

- **hurricane**: a large spinning storm that occurs over water



# What are hurricanes?

- The center of a hurricane is called the **eye**.
- It is very calm in the eye.
- The winds of a hurricane can cause a storm surge.
- **storm surge**: a rise in the height of the ocean around the hurricane.

# What are other forms of severe weather?

- **monsoon**: a seasonal wind that brings heavy rain
- Fog can be severe weather if it is thick enough to limit vision beyond a fourth of a mile.



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