

Name: _____



A tornado in Oklahoma

Extreme Weather

Severe storms happen in low-pressure weather systems. Warm, wet air begins rising into the air. The higher it rises, the cooler it becomes. Water vapor in the air forms drops, a process called condensation. The drops join together to form clouds, and then precipitation of some kind (rain, sleet, snow, or hail) will fall down to Earth's surface.

Although conditions must be very specific for a thunderstorm to develop, thunderstorms remain the most common kind of extreme weather. Before a thunderstorm can develop, there have to be three conditions present: the air has to be full of moisture, there must be either an intensely heated portion of Earth's surface sending warm air up quickly or an approaching cold front, and the warm air that is rising must be warm enough to stay warmer than the air it passes through as it rises. The moisture in the rising air condenses, clouds form and a storm begins.

A cold front happens when cold air is moving near the surface of Earth, and it pushes warm air up very quickly. This is often the beginning of a thunderstorm. Clouds form, and heavy rains begin falling. Opposite electrical charges inside storm clouds separate, causing lightning to flash towards Earth. Lightning has enough energy to heat the air all around it. This sudden burst of heat is what causes the noise we know as thunder. Thunderstorms often bring disasters with them, including floods, fires caused by lightning, damage from hailstones or strong winds, and even tornadoes. A tornado is a spinning mass of air over land that can destroy virtually everything in its path.

A blizzard is a combination of strong winds and extremely low temperatures. Snowfall increases until it is so heavy it is difficult or impossible to see. People can become lost in the snow and freeze to death. Homes can be covered over with snow, trapping people indoors.

A hurricane is the most powerful storm known on Earth. Forming over warm ocean waters off the coast of the tropics, they can become gigantic swirling mixtures of air and water between 100 and 900 miles wide. Wind speeds can average about 75 miles per hour. Hurricanes do the worst damage to coastal cities because they quickly lose their strength when they move over land. Hurricanes are so large and powerful that their swirling clouds can be seen from space.

Organizations like FEMA (the Federal Emergency Management Agency) and the American Red Cross help victims of severe weather to deal with its aftermath.

What Does It Mean?

According to the text, what is thunder?

Name: _____



A tornado in Oklahoma

Extreme Weather

Severe storms happen in low-pressure weather systems. Warm, wet air begins rising into the air. The higher it rises, the cooler it becomes. Water vapor in the air forms drops, a process called condensation. The drops join together to form clouds, and then precipitation of some kind (rain, sleet, snow, or hail) will fall down to Earth's surface.

Although conditions must be very specific for a thunderstorm to develop, thunderstorms remain the most common kind of extreme weather. Before a thunderstorm can develop, there have to be three conditions present: the air has to be full of moisture, there must be either an intensely heated portion of Earth's surface sending warm air up quickly or an approaching cold front, and the warm air that is rising must be warm enough to stay warmer than the air it passes through as it rises. The moisture in the rising air condenses, clouds form and a storm begins.

A cold front happens when cold air is moving near the surface of Earth, and it pushes warm air up very quickly. This is often the beginning of a thunderstorm. Clouds form, and heavy rains begin falling. Opposite electrical charges inside storm clouds separate, causing lightning to flash towards Earth. Lightning has enough energy to heat the air all around it. This sudden burst of heat is what causes the noise we know as thunder. Thunderstorms often bring disasters with them, including floods, fires caused by lightning, damage from hailstones or strong winds, and even tornadoes. A tornado is a spinning mass of air over land that can destroy virtually everything in its path.

A blizzard is a combination of strong winds and extremely low temperatures. Snowfall increases until it is so heavy it is difficult or impossible to see. People can become lost in the snow and freeze to death. Homes can be covered over with snow, trapping people indoors.

A hurricane is the most powerful storm known on Earth. Forming over warm ocean waters off the coast of the tropics, they can become gigantic swirling mixtures of air and water between 100 and 900 miles wide. Wind speeds can average about 75 miles per hour. Hurricanes do the worst damage to coastal cities because they quickly lose their strength when they move over land. Hurricanes are so large and powerful that their swirling clouds can be seen from space.

Organizations like FEMA (the Federal Emergency Management Agency) and the American Red Cross help victims of severe weather to deal with its aftermath.

What Does It Mean?

According to the text, what is thunder?

Actual answers will vary:

Thunder is the sudden burst of heat in the air caused by lightning.