

Name _____



What Causes Weather Events Like Tornadoes, Hurricanes, or Blizzards?

Extreme weather events can be powerful, dangerous, and sometimes surprising. But what causes these wild forces of nature? Let's explore what makes tornadoes, hurricanes, and blizzards happen.

Tornadoes are fast-spinning columns of air that touch the ground. They form when warm, moist air meets cold, dry air. This mix creates strong thunderstorms. Inside the storm, winds begin to swirl. If the spinning gets tight and fast enough, a tornado forms. Tornadoes can destroy buildings, flip cars, and lift heavy things into the air. They are most common in the middle of the United States, an area known as "Tornado Alley."

Hurricanes are giant storms that start over warm ocean water. When the ocean gets very warm, it heats the air above it. This hot, wet air rises and begins to spin because of the Earth's rotation. As more warm air rises, the storm grows larger. If it becomes strong enough, it turns into a hurricane. Hurricanes bring heavy rain, strong winds, and flooding. They can last for days and travel hundreds of miles.

Blizzards are snowstorms with strong winds and blowing snow. A blizzard happens when cold air meets moist air. The moist air turns into snow, and strong winds make it hard to see. Blizzards can bring freezing temperatures and cover everything in deep snow. Roads can become unsafe, and people may have to stay indoors.

Even though these storms are very different, they all have something in common—they form when air masses mix and move in certain ways. Weather scientists, called meteorologists, study how and where these storms happen. Their forecasts can warn people so they can stay safe.

Extreme weather can't always be stopped, but understanding it helps us prepare. Knowing the signs and staying alert during warnings can save lives.