

Write NO MORE THAN ONE WORD OR A NUMBER for each answer.

### Thunderstorms

Off in the horizon they rumble. Rolling across the land, they darken the skies to then spark fire in the darkness. Letting out an unmistakable roar. Thunderstorms are rain showers accompanied by lightening and thunder. While violent, these weather \_\_\_\_\_ are common with about 2,000 occurring at any moment worldwide. There are four major types of thunderstorms. Single-cell, which are small, weak, and \_\_\_\_\_ storms. Multi-cell, a common type of storm that includes a cluster of thunderstorms. Squall line, a collection of storms that form a line hundreds of miles long. And supercells, the most intense kind of storm capable of producing \_\_\_\_\_. All thunderstorms form when warm air in the lowest layers of the atmosphere rises. Called an updraft, this air causes water from the earth's surface to \_\_\_\_\_ and carries the moisture upward to form clouds. The clouds then build and grow. Sometimes as tall as 10 miles high. The clouds darken as they fill and become heavy with water. Cool, dry air from the upper layers of the atmosphere known as a downdraft then pull this moisture \_\_\_\_\_ causing it to fall as life-sustaining rain. In addition to helping sustain life, thunderstorms also help maintain the planet's balance of energy and electricity. When energy specifically in the form of heat causes water to evaporate, the heat is carried upward with the water vapor. As the vapor \_\_\_\_\_ and forms water droplets it releases the heat into the higher \_\_\_\_\_ of the atmosphere and cools the earth's surface. Thunderstorms also help regulate the electrical balance between the atmosphere and the planet. As clouds in a thunderstorm develop, excess positive and negative charges form within them. At a certain point, this buildup of opposite charges leads to the transfer of electrons in the form of lightening. This \_\_\_\_\_ of electricity occurs so quickly that it breaks the sound barrier. A phenomenon that produces thunder. While thunderstorms are necessary for maintaining balance in the atmosphere, (alarm blaring) they can also be \_\_\_\_\_. (phone line beeping) Lightening strikes create fires. Excessive rainfall can cause flash flooding and high-speed winds from tornadoes can destroy homes. Meteorologists study weather systems to try to predict the \_\_\_\_\_ of thunderstorms and help ensure the safety of countless communities.