A thunderstorm, also known as an electrical storm, a lightning storm, thundershower or simply a storm is a form of weather characterized by the presence of lightning and its acoustic effect on the Earth’s atmosphere known as thunder.The meteorologically assigned cloud type associated with the thunderstorm is the cumulonimbus. Thunderstorms are usually accompanied by strong winds, heavy rain and sometimes snow, sleet, hail, or no precipitation at all. Those which cause hail to fall are known as hailstorms. Thunderstorms may line up in a series or rainband, known as a squall line. Strong or severe thunderstorms may rotate, known as supercells. While most thunderstorms move with the mean wind flow through the layer of the troposphere that they occupy, vertical wind shear causes a deviation in their course at a right angle to the wind shear direction.

Thunderstorms result from the rapid upward movement of warm, moist air. They can occur inside warm, moist air masses and at fronts. As the warm, moist air moves upward, its cools, condenses, and forms cumulonimbus clouds that can reach heights of over 20 km. As the rising air reaches its dew point, water droplets and ice form and begin falling the long distance through the clouds towards the Earth’s surface. As the droplets fall, they collide with other droplets and become larger. The falling droplets create a downdraft of air that spreads out at the Earth’s surface and causes strong winds associated with thunderstorms.