

Key Concept Summaries

Storms

How Do the Different Types of Storms Form?

A **storm** is a violent disturbance in the atmosphere. Storms involve sudden changes in air pressure, which cause rapid air movements. Winter storms, thunderstorms, hurricanes, and tornadoes are all types of severe storms. Winter storms involve snow. **All year round, most precipitation begins in clouds as snow. If the air is colder than 0°C all the way to the ground, the precipitation falls as snow.** A **thunderstorm** is a small storm often accompanied by heavy precipitation and frequent thunder and lightning. **Lightning** is a sudden spark, or electrical discharge, that jumps between parts of a cloud, between nearby clouds, or between a cloud and the ground. **Thunderstorms form in**

large cumulonimbus clouds, also known as thunderheads. A **hurricane** is a tropical cyclone with winds of 119 km/h or higher. **A hurricane begins over warm ocean water as a low-pressure area, or tropical disturbance.** The low pressure and winds of a hurricane can cause **storm surge**, a “dome” of water that sweeps across the coast where the hurricane lands. A **tornado** is a rapidly whirling, funnel-shaped cloud that reaches down from a thunderstorm to touch Earth’s surface. **Tornadoes most commonly develop in thick cumulonimbus clouds—the same clouds that bring thunderstorms.**

How Can You Stay Safe in a Storm?

If you are caught in a snowstorm, try to find shelter from the wind. If you are in a car, be sure the exhaust pipe is free of snow before you run the engine. **During thunderstorms, avoid places where lightning may strike. Also, avoid objects that can conduct electricity, such as metal objects and bodies of water.** In case of a hurricane,

you should be prepared to **evacuate**, or move away temporarily. **If you hear a hurricane warning and are told to evacuate, leave the area immediately.** **The safest place to be during a tornado is in a storm shelter or a basement.** If there is no basement, move to the middle of the ground floor away from windows and doors.

On a separate sheet of paper, describe the formation of a thunderstorm and the tornadoes that may come from it. Explain what you would do to remain safe during both types of severe storms.