



Hail storm

A hail storm occurs when you have very heavy showers or thunderstorms.

Showers occur when the air is warm at the Earth's surface, but much colder higher up in the atmosphere. The warm air rises and the water vapour in it turns to liquid high up in the cloud. This is called convection. It is similar to what happens when you boil a kettle. When you heat the water at the bottom of the kettle, it rises to the top.

It is very cold at the top of the cloud. So the rain is frozen in the form of ice crystals.

When the ice crystals fall, they can get caught by air that is rising up through the cloud. We call this rising air an 'updraft'. The ice crystals then rise back up and near the top of the cloud and gather more ice, forming ice pellets. This happens a number of times. So the ice pellets get bigger and harder as more layers of ice develop on them. This is how they become hailstones.

Eventually, the hailstones are heavy enough so that they fall through the cloud without being lifted back up. They fall to the ground as a hail shower or hailstorm.

Fun Fact

In Ireland, hailstones are quite small. However, in some other parts of the world, such as Oklahoma in America, the clouds are much bigger and higher and so the updrafts are much stronger. This means that the hailstones get sent back up through the cloud many times and gather more and more ice. This produces very big hail hailstones that can be as big as tennis balls. These hailstones are very dangerous and can cause injury to people and damage to cars and buildings.