

What is a Hailstorm?

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About Hailstorm:

- **Hail** is a type of **solid rain made up of balls** or lumps of **ice**.
- **Storms that produce hail** that **reaches the ground** are **known as hailstorms**.
- They typically **last for no more than 15 minutes** but can cause **injuries to people and damage** buildings, vehicles, and **crops**.
- They are most **common in the midlatitudes**.
- Hailstorms can sometimes be **accompanied by** other **severe weather events, such as cyclones** and tornadoes.
- **Size**: The size of hailstones can **vary widely**, from **small pellets less than 1/4 inch** in diameter **to larger stones** measuring **several inches in size**.
- **Conditions for Hailstorms to occur**:
 - **Highly developed Cumulonimbus clouds** need to be present. These are the massive **anvil or mushroom-shaped clouds** that are **seen during thunderstorms**, which can **reach heights of up**

to 65,000 feet.

- There must be **strong currents of air ascending through these clouds**. These currents are commonly **known as updrafts**.
- **The clouds** will **need to contain high concentrations of supercooled liquid water**.

- **How are Hails formed?**

- It begins as a **water droplet** that is **swept up by an updraft inside of a thundercloud**.
- **Other supercooled water droplets** which are already **present inside the cloud** will **adhere to the water droplet's surface, forming layers of ice** around it.
- As the **water droplet reaches higher elevations** within the cloud, it **comes into contact with more** and more **supercooled particles**.
- The **hail embryo will grow larger** and larger as it reaches higher altitudes in the updraft.
- Finally, **it will reach a size** and weight **where gravity will begin to act** on it and **pull it down**.
- **Large hailstones** are often characterized by **alternating layers of clear and opaque ice, caused by irregular rates of freezing**.

Q1) What is a Tropical cyclone?

A tropical cyclone is a rapid rotating storm originating over tropical oceans from where it draws the energy to develop. It has a low pressure centre and clouds spiraling towards the eyewall surrounding the “eye”, the central part of the system where the weather is normally calm and free of clouds. Its diameter is typically around 200 to 500 km, but can reach 1000 km. A tropical cyclone brings very violent winds, torrential rain, high waves and, in some cases, very destructive storm surges and coastal flooding.

Source: [Hailstorm in Kulgam, Shopian damages harvest-ready apple](#)

Source: <https://vajiramandravi.com/current-affairs/hailstorm/>

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