

What is the Sun Halo?

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About Sun halo:

- **What is it?** It is an optical phenomenon that occurs **due to sunlight refracting millions of hexagonal ice crystals** suspended in the atmosphere.
- **How it is formed?**
 - When white light passes through **unique hexagonal ice crystals** found in **upper-level cirrus clouds**, causing the halo to have colours.
 - The clouds contain millions of tiny ice crystals, which refract and split the light to give an impression of a circular rainbow ring.
 - The crystals have to be oriented and positioned just so with respect to your eye, for the halo to appear.
 - Light undergoes **two refractions** as it passes through the ice crystals and the bending that occurs depends on the ice crystal's diameter.
 - The two refractions **bend the light by 22 degrees** from its original point, producing a ring of light around the Sun or the Moon.
- The **lunar halos** are mostly colourless as moonlight is not very bright.
- In the case of the Sun, these colours are more noticeable and appear as bright as a rainbow.

Q1) What are Cirrus clouds?

Cirrus clouds are a type of high-altitude cloud that are composed of ice crystals. They are thin, wispy, and often appear as long, white, feather-like clouds, stretched out across the sky. Cirrus clouds form at altitudes of 16,500 to 45,000 feet (5 to 13 kilometers) and are usually associated with fair weather.

Source: [Sun halo spotted in Prayagraj leaves many awe-inspired. Here's what it is](#)

Source: <https://vajiramandravi.com/current-affairs/what-is-the-sun-halo/>

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