

# Meteor Showers - Educator's Guide (Ages 12-15)



## At the end of these Night Sky activities students will understand:

- Multiple meteor showers take place annually
- During a shower, Earth is moving through a stream of meteoroids
- The meteoroids are left behind by comets
- Meteor showers are named for the constellation where they seem to originate

## Astronomy background information

Meteors randomly fall on Earth throughout the year. There are also multiple regular annual showers. They are named for the constellations where the meteors seem to originate. Their origin points are called the **radiants**.

A shower occurs when the Earth moves through a stream of rocky and metallic particles called **meteoroids**. The meteoroids are moving at high speed with respect to the Earth but rapidly decelerate on entering our atmosphere. Their kinetic energy is converted to heat and light energy. This vaporises the meteoroids and makes them appear as glowing meteors in the night sky.

The meteoroids in a shower are small particles of debris released by a comet (which is no longer easily visible) and are spread out along the comet's orbital path. The Leonids originate from Comet 55P/Tempel-Tuttle.

Earth can take weeks to move through the stream of meteoroids so meteor showers are extended events. There is a peak in the middle of the shower when more meteors are visible, for example the Leonid shower peaks around November 18, but meteors are visible through several weeks on either side of this date.

## Night Sky App Essential Settings

Go to Night Sky Settings  and make sure the following Preferences are set.

**Turn On these Effects:**  
Real Sky Representation  
Show Constellation Lines  
Meteor Showers

**Turn Off these Effects:**  
Show Satellites  
Draw Trajectories and Orbits  
Show Glass Mythology

## Accessible Learning:

- Text size can be increased in the Preferences section
- Star numbers can be reduced by sliding two fingers down the screen

