

Definition: **meteor** from *Philip's Encyclopedia*

(shooting star) Brief streak of light in the night sky caused by a meteoroid entering the Earth's upper atmosphere at high speed from space. A typical meteor lasts from a few tenths of a second to a few seconds, depending on the meteoroid's impact speed, which can vary from c.11-70km/s (7-45mi/s). At certain times of the year there are meteor showers, when meteors are more numerous than usual.

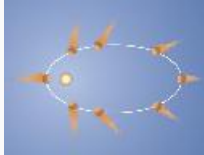


Image from: [comet Radiation pressure and solar wind effects... in Astronomy Encyclopedia](#)

Summary Article: **meteor**

From *The Columbia Encyclopedia*

appearance of a small particle flying through space that interacts with the earth's upper atmosphere. While still outside the atmosphere, the particle is known as a meteoroid. Countless meteoroids of varying sizes are moving about the solar system at any time. Perhaps a billion meteoroids a day enter the atmosphere, their speeds ranging from 10 to 45 mi (16–72 km) per sec. They experience friction due to collisions with the atmosphere; by the time they reach 50 to 75 mi (80–120 km) from the earth's surface, they have been heated to incandescence through friction and are visible as “shooting stars,” or “falling stars.” Most meteors disintegrate completely before they reach the earth; those large enough to reach the ground are called meteorites. (Some dust-sized particles are so small and light, however, that they float down through the atmosphere without heating up due to friction.) A meteor of considerable duration and brightness is known as a fireball; a fireball that breaks apart with an explosion is a bolide. The brightest fireball ever recorded fell in the Tunguska Basin, Siberia, in 1908, causing the destruction of forest over an area of about 770 sq mi (2,000 sq km). In 2013 a considerably smaller meteor injured some 1,200 people in Chelyabinsk, Russia, when shock waves from its explosion high in the atmosphere shattered glass in many buildings. Meteoroids are composed of stone, iron, or a mixture of stone and iron, with other metals present in very small proportions. Other meteoroids, the carbonaceous chondrites, are stony with a large amount of carbon. Although most meteoroids are quite small, and even though only a very small fraction of them reach the earth's surface, their large quantity accounts for several tons of matter falling on the earth each day. A single observer under a dark sky can see an average of 5 to 10 meteors per hour; more during a meteor shower. More meteors are visible after midnight because the earth's rotation has then positioned the observer's part of the earth in the direction of the earth's motion about the sun. The frequency of meteors also increases when the earth passes through certain swarms of particles that intersect the earth's orbit. Such meteor showers are named for the constellation from which they appear to originate.

**APA**

Chicago

Harvard

MLA

meteor. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from <https://search.credoreference.com/content/topic/meteor>

---



*The Columbia Encyclopedia*, © Columbia University Press 2018



*The Columbia Encyclopedia*, © Columbia University Press 2018

## APA

meteor. (2018). In P. Lagasse, & Columbia University, *The Columbia encyclopedia* (8th ed.). New York, NY: Columbia University Press. Retrieved from <https://search.credoreference.com/content/topic/meteor>

## Chicago

"meteor." In *The Columbia Encyclopedia*, by Paul Lagasse, and Columbia University. 8th ed. Columbia University Press, 2018. <https://search.credoreference.com/content/topic/meteor>

## Harvard

meteor. (2018). In P. Lagasse & Columbia University, *The Columbia encyclopedia*. (8th ed.). [Online]. New York: Columbia University Press. Available from: <https://search.credoreference.com/content/topic/meteor> [Accessed 15 September 2019].

## MLA

"meteor." *The Columbia Encyclopedia*, Paul Lagasse, and Columbia University, Columbia University Press, 8th edition, 2018. *Credo Reference*, <https://search.credoreference.com/content/topic/meteor>. Accessed 15 Sep. 2019.