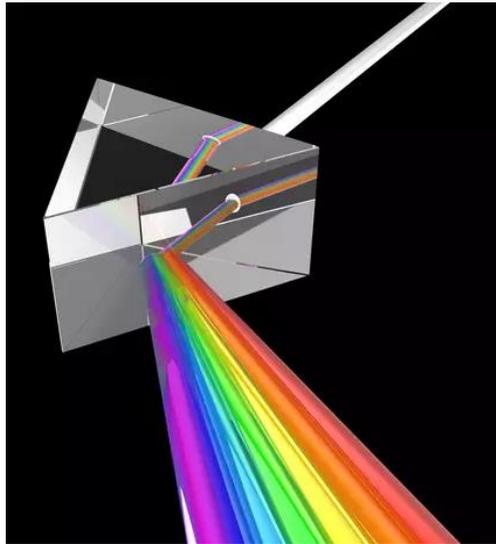


## Light

Light is something that we take for granted. Turn on a switch and voila, light! In most cities, street lights shine throughout the night. A few hundred years ago, though, people really appreciated light. Once the sun went down, the only light they had came from candles, simple lanterns, or the stars and moon. Night time probably seemed eerie - or downright dangerous. But what exactly is light? Is it matter?



### Fun Facts

- Light can travel through some types of matter, but not others. Light travels through air. It can be seen through a glass window or a sheet of clear plastic wrap. These types of matter are transparent. Some objects are translucent, meaning that some light passes through them, while some light is reflected. Wax paper is a good example. Opaque matter reflects light, or bounces it back into the environment. Your book, your pants, or your blanket are all opaque. No light goes through them.
- Light is a form of energy, and a pretty important one. Without light, life on our planet would die. Sunlight warms our planet and helps plants grow. People and animals need sunlight to help produce vitamin D in their bodies. Light is not considered matter, but is made of photons.
- Light travels faster than anything else in the universe. In a vacuum, it travels at a speed of 186,282 miles per second.

- Light usually travels on a straight path, but it bends - or refracts - when traveling through a transparent object. A prism is a good example of refracted light. Place a metal spoon in a transparent glass filled with water. The spoon appears to be bent because of how the light moves through the glass.
- Have you heard the word luminous? A source that gives out their own light are classed as luminous. Examples of luminous sources are: The Sun - TV's - Candles - Light bulb - Fireworks.
- Magnifying glass refracts light giving an enlarged view of objects.
- A rainbow is a spectrum, this spectrum is seen when sunlight passes through rain or water drops.

### Vocabulary

- Photon: particles from which light is made
- Refract: light's tendency to bend as it passes through transparent matter
- Prism: a piece of glass or plastic cut with many angles to reflect light, creating a rainbow