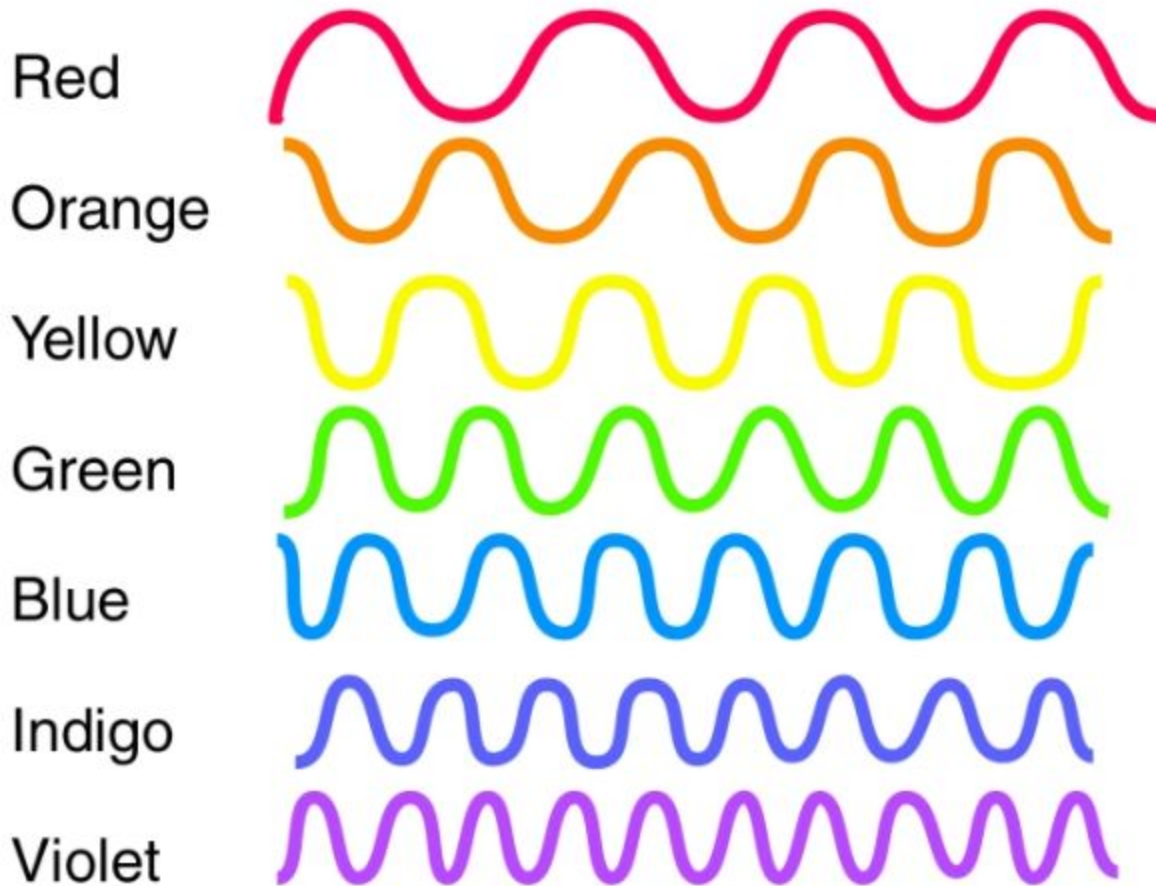


Visible Light - Wavelength



Visible Light waves are the only electromagnetic waves we can see. We see the waves of different lengths as different colors. The **wavelength** of visible light determines its color. When light reaches a red object all of the light waves except the red light waves are absorbed. That is why the object appears red.

A **filter** is a transparent body that allows light of only certain colors to pass through it.

What does a spectroscope do?

A spectroscope helps us find out what stars are made of. It disperses, or separates, white light from a star into a very wide spectrum of colors — much wider than a normal prism does. When spread very wide, black lines appear in the spectrum.

The first scientists to observe these lines wondered why they were there and what they meant. It turns out that particular elements in the star created particular patterns of lines. Once scientists knew the element responsible for a certain pattern, they knew which elements were present in the star. This was a revolutionary discovery.

