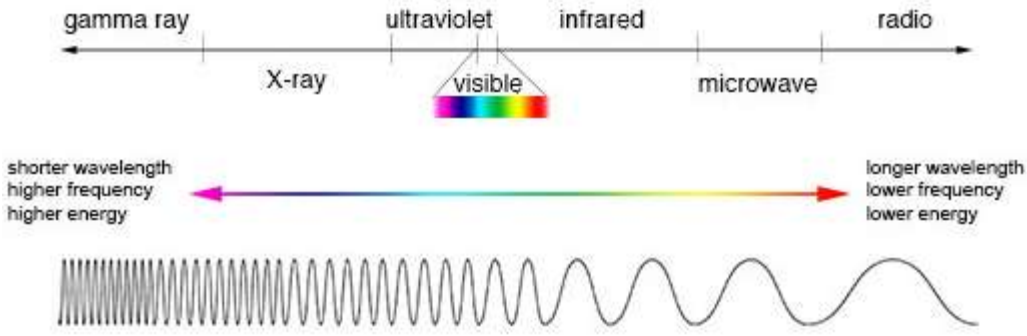
Relationship Between Wavelength, Visibility And Temperature

Rajika Maheshwari

The electromagnetic spectrum is the range of radiation (energy) that travels and dissipates. Electromagnetic radiation is made up of microwaves, infrared, ultra-violet, visible, radio, x-ray and gamma rays. Each radiation type is associated with a wavelength, the higher the wavelength, the lower the energy. Of the different radiations, only one type is Visible to us through a color range from violet to red.



Temperature enters this equation through the concept of Thermal Radiation. Any object that is hot gives off light known as Thermal Radiation.The hotter an object is, the more light it emits. And, as the temperature of the object increases, it emits most of its light at higher and higher energies (shorter wavelength). ***The relationship between the amount of light emitted, wavelength and temperature is an equation known as the Planck Law***.