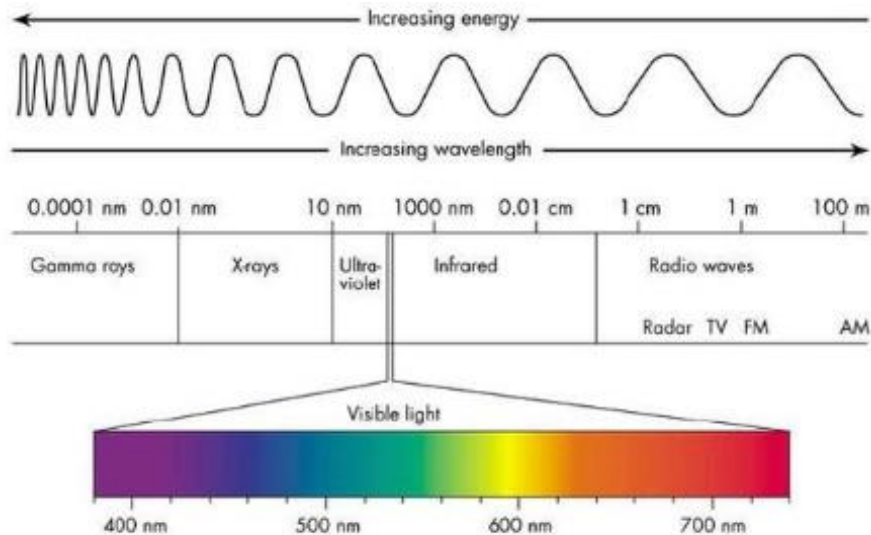


1.7.3 Radiation

There is a third type of heat transfer, it is called radiation. Radiation **does not** rely on the movement of a liquid or gas nor does it rely on travelling through a material. Heat transfer by radiation (electromagnetic radiation) occurs in much the **same** way as light travels.



Radiation is the method by which heat is transferred from the Sun to you. Electromagnetic radiation is emitted by any object which is above absolute zero. The wavelength and frequency of the emitted radiation depends on the internal energy of the object. The higher the temperature, the higher the frequency.

A number of factors affect the rate of emission and absorption.

- **Surface** area.
- **Temperature**.
- **Wavelength** of incident radiation.
- Surface **colour** and texture.

Problem Set #6: Text Page 27 Questions 1-7