

## Vocabulary: Radiation



### Vocabulary

- Filament – the wire in a light bulb that gives off light when heated by electricity.
  - Most incandescent light bulbs have filaments made of tungsten.
  - In fact, *any* hot material will radiate light, although the light is not always visible to humans.
- Infrared – a type of light energy not visible to humans.
  - Objects at room temperature give off infrared light, as do hotter objects.
  - Like all radiation, infrared waves can be absorbed, causing an object to heat up. This is how “heat lamps” work.
  - Because infrared cannot be seen, sometimes people mistakenly refer to this type of radiation as “heat waves.” In reality, *any* kind of radiation can transfer heat.
  - Standard incandescent light bulbs radiate much more infrared light than visible light. This is why many see them as inefficient sources of light.
- Kelvin scale – a metric temperature scale used by scientists.
  - The zero point on the Kelvin scale is *absolute zero*, the coldest any substance can possibly be. This is equivalent to -273.16 degrees Celsius.
  - According to the Kelvin scale, water freezes at 273.16 degrees and water boils at 373.16 degrees.
- Radiation – energy given off in the form of light.
  - Some types of “light” are not visible to humans, such as infrared or ultraviolet.
  - A microwave oven uses a type of light called “microwaves” to heat food.
  - Radio waves and x-rays are other kinds of radiation.