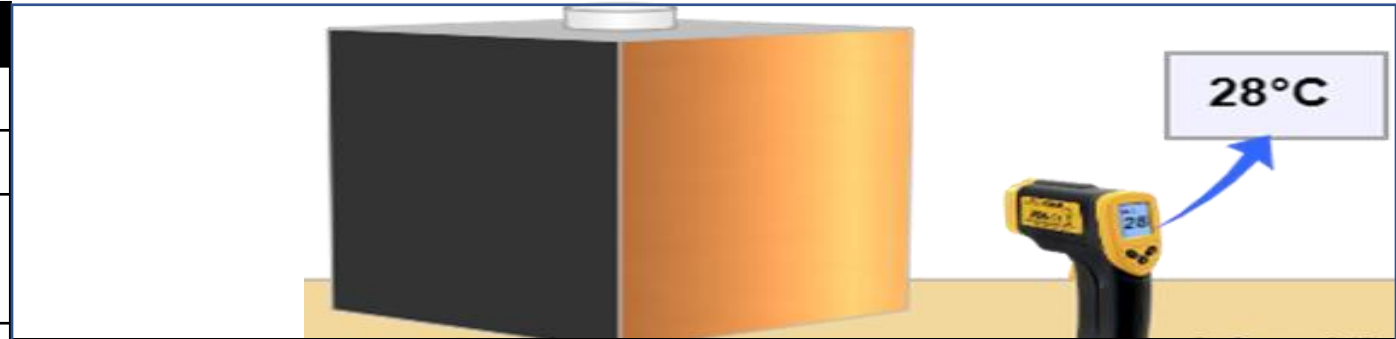


Physics topic : P13 Electromagnetic waves

9. Uses of EM waves	
Name	Use
Radio	Radio and TV
Microwaves	Satellite communication, cooking food, mobile phones, wifi
Infrared	Electric heaters, cooking food, infra-red cameras
Visible	Fibre optic communication, Digital cameras
Ultra violet	Energy efficient lamps, sun tanning, security marker pens
X rays	Imaging bones, X Ray therapy
Gamma rays	Radiotherapy, medical imaging



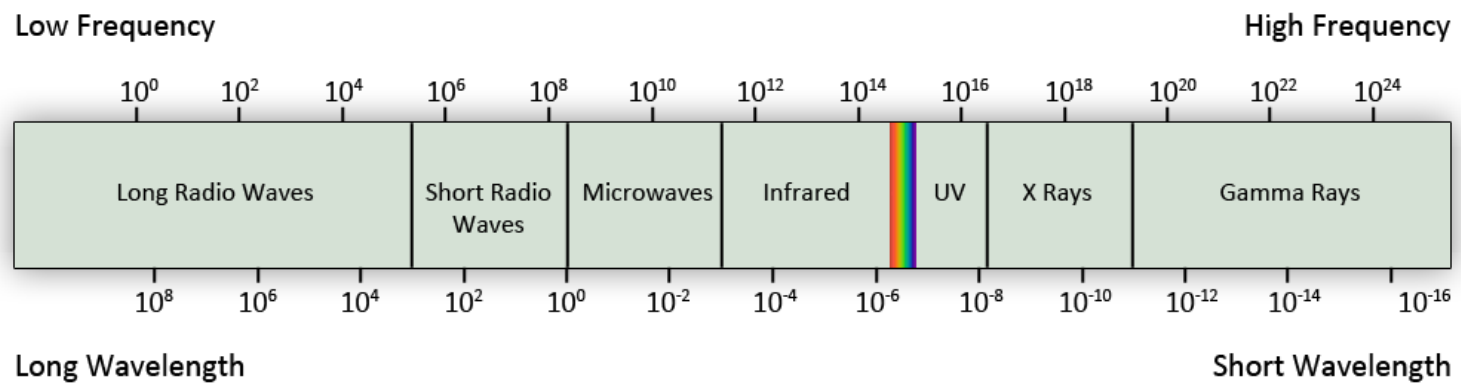
Required practical

A *Leslie cube* is a hollow metal box made of copper or steel. The cube has different surface finishes on four of the faces.

- matte black surface
- white surface
- polished, shiny surface
- unpolished surface.

The cube is filled with hot water, so that each of the faces is at the same temperature. The heat **radiating** from each face can be detected with an **infrared** thermometer - the greater the radiation, the greater the temperature reading.

7. The electromagnetic spectrum



1	Radio	Produced by oscillations in circuits (HT).
2	Microwaves	Potential hazard from mobile phones.
3	Infrared	Thermal radiation, can cause burns.
4	Visible	Blindness/eye damage
5	Ultra violet	Cause skin cancer
6	X rays	Ionising :Cause cancer
7	Gamma rays	Ionising :Cause cancer