

Learning Outcomes

Level 4 E-M spectrum

- State that the electromagnetic spectrum is a family of waves
- State the order of radiations from longest to shortest wavelength for the electromagnetic spectrum
- Describe the relationship between frequency, wavelength and energy for electromagnetic waves
- State the speed that all electromagnetic waves travel at.
- Research and present information to the class on one member of the electromagnetic spectrum
- Describe for radio waves and microwaves:
 - Uses
 - Frequency and wavelength bands
- Research then explain how microwave radiation can be used to heat food and describe what impact this has on society.
- Describe for infra-red, visible light and ultra-violet radiation:
 - Uses
 - Potential hazards
 - Impact on society
 - Frequency and wavelength bands
- Describe the hazards associated with UV radiation
- Investigate how sunscreens can minimise risks of UV radiation
- Describe for x-rays and gamma rays:
 - Uses
 - Potential hazards and methods of protection
 - Impact on society
 - Frequency and wavelength bands