

The Invasion of Invisible Waves

1 | 2

- What are the properties of a transverse wave?

- Write down definitions for the frequency,

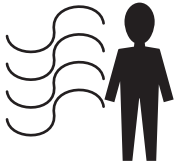
wavelength

and amplitude of a wave.

- For transverse waves, what is the relationship between wavelength and frequency?

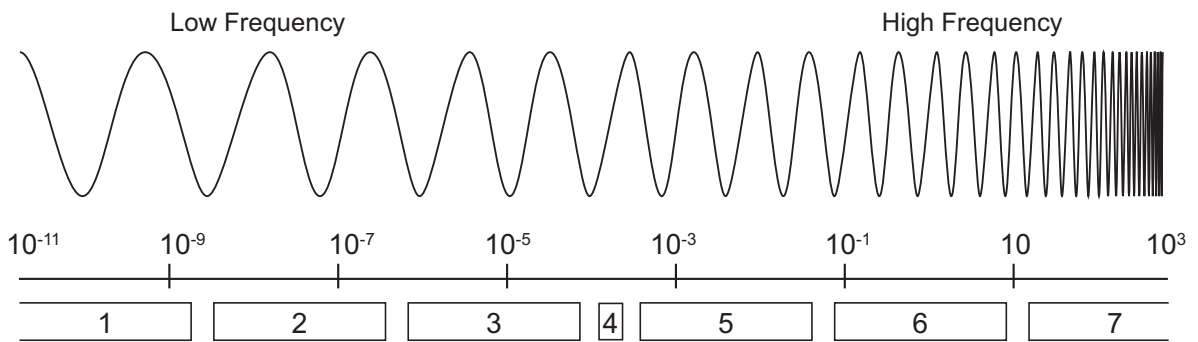
- What colour of visible light has the longest wavelength?

- If electromagnetic waves travel at a speed of 3×10^8 m/s, what is the wavelength of a wave that has a frequency of 90Hz?



The Invasion of Invisible Waves 2 | 2

➤ Name the seven types of electromagnetic wave shown on the diagram below and find out how they are used.



- | | |
|---|-----------|
| 1 | Used for: |
| 2 | Used for: |
| 3 | Used for: |
| 4 | Used for: |
| 5 | Used for: |
| 6 | Used for: |
| 7 | Used for: |

- Which are the most dangerous parts of the electromagnetic spectrum to humans?

- Why is UV radiation associated with skin cancer?

- How can we ensure we are as safe as possible in the sun?

- How do sunscreens aim to reduce the UV light reaching our skin?

