Edexcel GCSE Physics

Topics 4.1-4.6 - Properties of Waves

Flashcards

Complete this sentence .

Waves transfer _____ and _____ but do not transfer _____.

Waves transfer **energy** and **information** but do not transfer **matter**.

What are the two types of waves?

What are the two types of waves?

1. Transverse
2. Longitudinal

What is a transverse wave?

What is a transverse wave?

A wave for which the oscillations are **perpendicular** to the direction of energy transfer.

What is a longitudinal wave?

What is a longitudinal wave?

A wave for which the oscillations are **parallel** to the direction of energy transfer.

Give two examples of transverse waves.

Give two examples of transverse waves.

1. Electromagnetic waves
2. Seismic s-waves

Give two examples of longitudinal waves.

Give two examples of longitudinal waves.

1. Sound waves
2. Seismic p-waves

What are the two parts of a longitudinal wave called?

What are the two parts of a longitudinal wave called?

Compressions and rarefactions.

What are the two parts of a transverse wave called?

What are the two parts of a transverse wave called?

Peaks and troughs.

What is a wave’s amplitude?

What is a wave’s amplitude?

The maximum displacement of a point on a wave from its undisturbed position.

What is wavelength?

What is wavelength?

- The distance from a point on a wave to the same position on the adjacent wave
- Most commonly peak to peak or trough to trough

What is the frequency of a wave?

What is the frequency of a wave?

The number of waves that pass a given point each second.

What is the unit used for frequency?

What is the unit used for frequency?

Hertz, Hz

What is meant by a frequency of 200Hz?

What is meant by a frequency of 200Hz?

200 waves pass a given point each second.

What is wave speed?

What is wave speed?

The speed at which energy is transferred through a medium.

What does a wave transfer?

What does a wave transfer?

Energy.

What is wave velocity?

What is wave velocity?

Wave velocity (measured in metres per second) is equal to the product of the wavelength and frequency of the wave.

State the equation used to calculate wave speed. Give appropriate units.

State the equation used to calculate wave speed. Give appropriate units.

Wave Speed = Frequency x Wavelength

Speed (m/s), Frequency (Hz), Wavelength (m)

What is meant by the period of the wave?

What is meant by the period of the wave?

The length of time it takes for one full wave to pass through a point.