Waves

Physics Paper 2 | 30 quick questions

GCSE science knowledge recall

Answer online, marked instantly

Name: _____ **Date:** _____ **Score:** _____ **/ 30**

1 In which type of wave are the oscillations at right angles to the direction of energy transfer?

2 Sound waves in air are made of compressions and what other regions? Answer in one word.

3 When a wave travels across water, does the water itself travel along with the wave? Answer yes or no.

4 What is the name for the maximum displacement of a point on a wave from its rest position? Answer in one word.

5 What is the unit of frequency? Give the name.

6 Complete the word equation: wave speed = frequency × ...?

7 A wave has frequency 50 Hz and wavelength 4 m. What is its speed, in m/s?

8 A wave has a frequency of 5 Hz. What is its period, in seconds?

9 When a wave reflects off a flat surface, how does the angle of reflection compare with the angle of incidence?

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10 What is the name for the distance from a point on one wave to the same point on the next wave? Answer in one word.

11 What is the name for sound waves with a frequency above the range of human hearing?

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12 Which type of seismic wave, P or S, cannot travel through a liquid?

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13 Which part of the electromagnetic spectrum has the longest wavelength?

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14 Which part of the electromagnetic spectrum has the highest frequency?

15 What is the speed of all electromagnetic waves in a vacuum, in m/s?

16 Which is the only part of the electromagnetic spectrum the human eye can detect? Answer in two words.

17 What is the name for a wave changing direction as it passes from one medium into another? Answer in one word.

18 When light goes from air into glass, does it bend towards or away from the normal?

19 Using wave fronts, explain in one sentence why light bends when it enters glass at an angle.

Higher

20 Which part of the electromagnetic spectrum is produced by changes in the nucleus of an atom?

21 Which type of electromagnetic wave is used to send signals to and from satellites and to cook food?

22 Which type of electromagnetic wave is used in thermal imaging cameras?

23 Which type of electromagnetic wave is used to see broken bones?

24 Which type of electromagnetic wave from the Sun can cause skin to age early and increase the risk of skin cancer?

25 What type of lens brings parallel rays of light together at a principal focus? Answer in one word.

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26 Complete the word equation: magnification = image height ÷ ...? Answer in two words.

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27 A red jumper is seen in white light. Which colour of light does it reflect?

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28 What is the name for an object that absorbs all the radiation falling on it? Answer in two words.

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29 As an object gets hotter, does the intensity of radiation it emits at shorter wavelengths increase or decrease?

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30 Explain in one sentence why exposure to X-rays and gamma rays is dangerous to people.

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