Wave effects

Waves 3.4.3 | Part 2, usually Year 8 | 20 quick questions

KS3 science quick questions

Answer online, marked instantly

Activate 3: Waves, sound and light | Exploring Science 7L, 8J

Name: _____ **Date:** _____ **Score:** _____ **/ 20**

1 Waves move from place to place without carrying the material along with them. What do they carry? Answer in one word.

2 Doctors make pictures of an unborn baby using sound waves that are too high-pitched for us to hear. What are these waves called?

3 In an ultrasound cleaning bath for glasses and jewellery, what does the sound make the water do very fast? Answer in one word.

4 Which invisible part of sunlight causes sunburn?

5 Too much ultraviolet over many years raises the risk of which serious disease? Answer in two words.

6 Which device turns the sound of your voice into an electrical signal?

7 In a music system, which device turns a changing electric current back into sound?

8 Sound is a pressure wave. It has regions of high pressure and regions of what pressure?

9 Wave A and wave B have the same frequency, but wave A has a bigger amplitude. Which wave, A or B, carries more energy?

10 Wave X and wave Y have the same amplitude, but wave X has a higher frequency. Which wave, X or Y, carries more energy?

11 A wave travels across a pond from left to right. Which way does it carry energy: left to right, or right to left?

12 Old-style camera film changes when light hits it, making a new substance. Is this a physical change or a chemical change?

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13 A sound wave passes through the air, but the air particles do not travel along with it. What do the particles do instead? Answer in one word.

14 Solar cells on a roof absorb light. What do they produce? Answer in one word.

15 Which has the higher frequency: visible light or ultraviolet?

Year 9 stretch

16 A microphone turns sound into a changing electric current. A singer gets louder. Do the changes in the current get bigger or smaller?

17 Which carries more energy and can do more damage to living cells: ultraviolet or visible light?

18 A bat finds moths in the dark by sending out high-pitched squeaks and listening for the echoes. What is this method called?

19 A physiotherapist aims ultrasound at a sore muscle. The muscle absorbs the waves. What happens to the temperature of the muscle tissue?

20 Explain why you can get sunburnt on a cool, windy day at the beach.

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