2023–2024 Gr4 Science Benchmark Unit 4

Question 1.
_____ are waves that move through something like water or air.

A. Mechanical waves

B. Mediums

C. Amplitude

D. Electromagnetic Waves

Question 3.
The measurement of a wave's energy is called:

A. Amplitude

B. Transverse waves

C. Wavelength

D. Electromagnetic waves

Question 2.
The measurement of a wave's strength or intensity is called:

A. Wavelength

B. Amplitude

C. Mediums

D. Longitudinal waves

Question 4.
Which of the following is NOT an example of the role that waves play in our daily lives?

A. Listening to music

B. Heating up food

C. Opening up doors

D. Communicating with someone over the phone

Question 5.

How do waves move? Select ALL that apply.

A. Move away from the starting point

B. Move up and down

C. Move left to right

D. Stay still

E. Move in a straight line

Question 6.

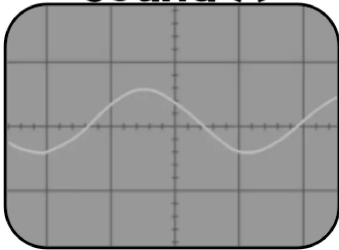What is the difference between a longitudinal wave and a transverse wave?

A. The directions in which the vibration occurs

B. The frequency of the wave

C. The amplitude of the wave

D. The energy of the wave

Question 7.

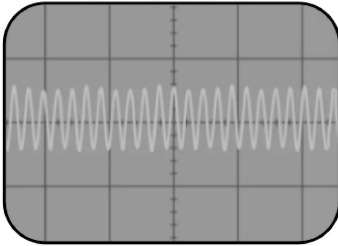Can waves cause movement? Explain your answer.

Question 8.
Drag the sound images so that they are in order from the LOWEST pitched sound to the HIGHEST pitched sound. (Place the lowest pitched sound in Box 1)

Sound A

Sound B

Sound C

Sound D

1

2

3

4

Question 9.
The following are all ways to send coded information in order to communicate EXCEPT:

A. Drumming

B. Barcodes

C. Singing

D. QR Codes

Question 10.
Sequence the following events to describe how waves are used to transmit information:

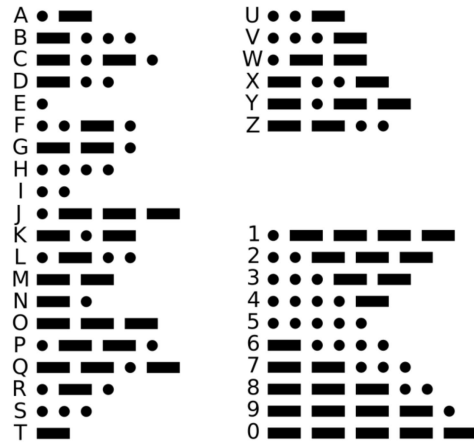> Information is CODED into a wave signal.

> A wave signal is DECODED into its original form.

> A wave signal is RECEIVED by a receiver.

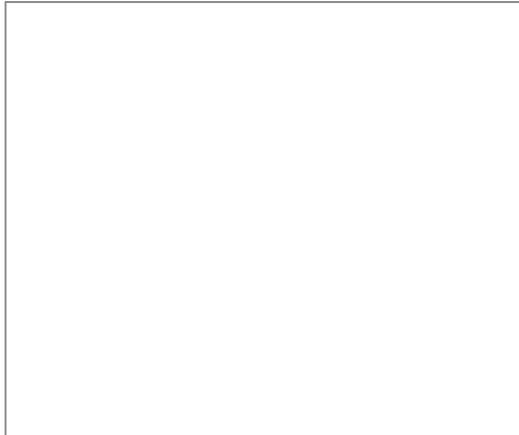> A wave signal is TRANSMITTED across a distance.

Question 11.
Use Morse Code to write the word CAT.

Question 12.

Morse code changed the way humans transmitted information across long distances. Before Morse code, messages had to be carried by people or horses. How did Morse code improve the ability of humans to communicate?

Question 13.

The last message transmitted via Morse code was in 2013. Why do we communicate with other means today? Would it be beneficial for humans to still understand Morse code? Justify your answer.