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Solution 1

Yes, sound can travel through iron and as well as water.

Solution 2

No, sound cannot travel through vacuum.

Solution 3

Radio waves are used to communicate with one another on moon.

Solution 4

Solid - table

Liquid - water

Gas - air

Solution 5

Vacuum

Solution 6

Frequency

Solution 7

SI unit of frequency is hertz.

Solution 8

(a) Longitudinal wave

(b) Transverse wave

Solution 9

Speed of sound is more in steel (solid medium) as compared to water (liquid medium).

Solution 10

Sound travels faster in iron (being a solid medium).

Solution 11

Sound travels fastest in steel (solid medium).

Solution 12

(a) Sound travels slowest in gases.

(b) Sound travels fastest in solids.

Solution 13

(a) Speed of sound in copper = 3750m/s

(b) Speed of sound in aluminium = 5100m/s

Solution 14

It is more convenient to put the ear to the track to hear a train approaching from far away because sound travels faster in solids than in air.

Solution 15

Speed of sound (at 20°C) in:

(a) Air = 344 m/s

(b) Water = 1498 m/s

(c) Iron = 5130 m/s

Solution 16

Supersonic aircrafts

Solution 17

Supersonic Speed

Solution 18

Supersonic speed refers to the speed of an object which is greater than the speed of sound.

Solution 19

It is common observation that in the rainy season, the flash of lightning is seen first and the sound of thunder is heard a little later.

That's because, speed of

light is very high as compared to speed of sound in air.

Solution 20

Transverse and Longitudinal waves.

Solution 21

Transverse (water) waves.

Solution 22

Longitudinal (sound) waves.

Solution 23

(a) Longitudinal waves

(b) Transverse waves.

Solution 24

(a) Longitudinal waves

(b) Transverse waves

Solution 25

Transverse waves

Solution 26

An object should vibrate in order to produce sound.

Solution 27

Vocal cords vibrate in our voice box when we talk.

Solution 28

Tuning fork is used to produce sound in laboratory experiments.

Solution 29

The sound waves in air are longitudinal waves.

Solution 30

The conclusion from the observation is that the prongs of tuning fork are vibrating, and the vibrating prongs carry energy which gets transmitted to surrounding medium.

***** END *****