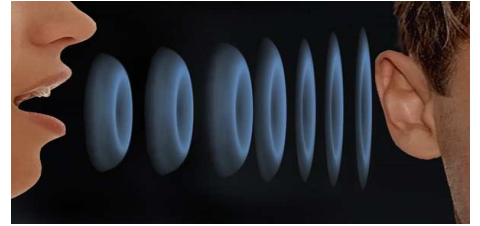


SOUNDWAVES

1. Complete the sentences.

Sound is one type of(a).... Light is a transversal(b)...., sound is a(c) wave. Every object vibrating around us is a sound source. If ... (d).... spreads in a medium, the density of the ..(e).... changes periodically both in time and space.



2. Fill in the gaps with the proper words, expressions.

If a sound is loud, the(a).... of the sound is big. This also means, that the maximum extension, i.e. the(b).... is big. If the intensity of sound Q is 1000 times bigger than that of sound P, then Q is ... (c).... times louder than P. If the sound is too loud, it damages your ... (d)...., like pneumatic hammer with its intensity of(e)....(f).... people cannot endure very(g) sound, but cannot hear very(h)..... sound either, because their eardrums are already less.(i)... Pitch of the sound depends on its ..(j)... High pitch sound has ... (k)... frequency, while low pitch sound has ... (l)... frequency. However, musical sound is not(m)...., it always contains overtones. The ratio and number of these(n).... give the timber of sound. If the ratio of the overtones changes randomly, the sound is called(o)...



- | | | | | | | | |
|---|--------------------------|---|-----------|---|---------------|---|-----------|
| A | $10^{-16} \frac{W}{m^2}$ | D | elastic | H | loud | L | overtones |
| B | amplitude | E | frequency | I | monochromatic | M | low |
| C | eardrum | F | high | J | noise | N | soft |
| | | G | intensity | K | old | O | three |

3. Answer the questions below.

- | | |
|---|--|
| a. Which statement is wrong?
A) Sound is produced by vibrating objects.
B) Sound travels as wave.
C) High volume causes pollution.
D) Sound is transmitted in vacuum. | b. Where can sound travel?
A) Air
B) Water
C) Space
D) Any substantial medium |
| c. In which medium is sound speed the biggest?
A) Solids
B) Liquids
C) Vacuum
D) Gases | d. Which is wrong for sound and heat insulation?
A) Double-glazing in buildings
B) Using striper in between walls
C) Covering roofs with fibreglass
D) Painting the house |
| e. Why do we put our hands on both sides of our mouth to call a distant place?
A) to direct sound where we want to head
B) to make it louder
C) to prevent it from hearing
D) to regulate sound | f. What is the main reason to put muffler noise damper on our cars' exhaust pipes?
A) to prevent air pollution
B) to prevent noise pollution
C) to save oil
D) to give an esthetical looking |
| g. Which material do we use at home for sound insulation?
A) Carpet
B) Table
C) Sofa
D) Curtain | h. Which feature of objects is effective on spreading of sound?
A) Volume
B) Mass
C) Density
D) Solidness |

Solution:

1.

a	b	c	d	e
wave	wave	longitudinal	sound	medium

2.

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
G	B	O	C	A	K	H	N	D	E	F	M	I	L	J

3.

a	b	c	d	e	f	g	h
D	D	A	D	A	B	D	D