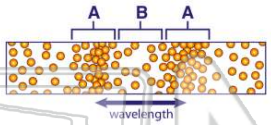
Sound

Sci H

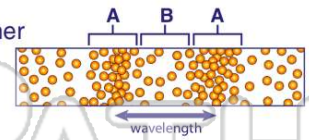
Name _____ Class _____ Date _____

1 The diagram below shows the **air molecules** in part of a sound wave. The part of the wave that is labeled B is called a _____.



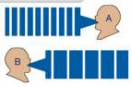
A condensation
B reflection
C compression
D rarefaction

2 Look at the areas labeled **A** in this diagram of longitudinal sound waves. These areas are called **compressions** because the **particles** of the sound waves are _____.



A close together
B soft
C far apart
D reflecting

3 The diagram below shows sound waves from two **different voices**. What is the difference between these waves?



A Sound A is louder than sound B.
B Sound B has a higher frequency than sound A.

4 The diagram below shows the **human ear**. What type of **energy conversion** is necessary in the ear for hearing to actually occur?

A electrical to chemical
B mechanical to chemical

5

7

True or false?

A true
B false

A wavelength
B loudness
C frequency
D amplitude

9 Matter's ability to **bounce back** after it is disturbed is called _____.

A reflection
B elasticity
C rarefaction
D compression

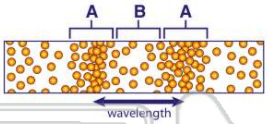
10 The phrase "heat lightning" is often used when people see lightning but **do not hear thunder**. What is the explanation for this?

A Lightning does not always cause thunder.
B Thunder was produced, but the sound was too far away to be heard.
C Some thunder frequencies are high above the range of human hearing.
D Some thunder frequencies are below the range of human hearing.

ANSWER KEY

The diagram below shows the **air molecules** in part of a sound wave. The part of the wave that is labeled B is called a _____.

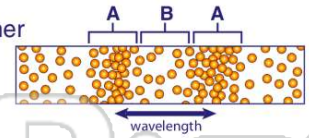
A condensation
B reflection
C compression
D rarefaction



d

Look at the areas labeled **A** in this diagram of longitudinal sound waves. These areas are called **compressions** because the **particles** of the sound waves are _____.

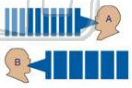
A close together
B soft
C far apart
D reflecting



a

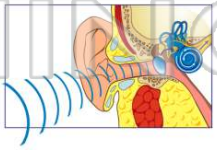
The diagram below shows sound waves from two **different voices**. What is the difference between these waves?

A Sound A is louder than sound B.
B Sound B has a higher frequency than sound A.
C Sound B is made by a woman.
D Sound A has a higher frequency than



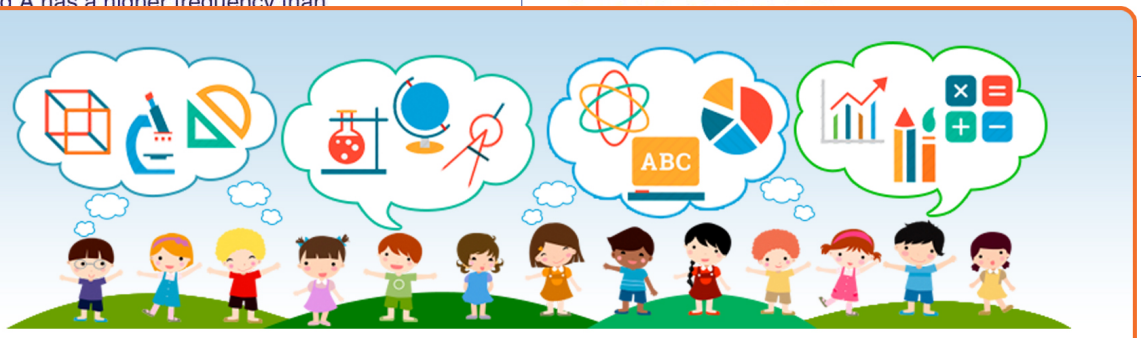
d

The diagram below shows the **human ear**. What type of **energy conversion** is necessary in the ear for hearing to actually occur?



A electrical to chemical
B mechanical to chemical
C mechanical to electrical

c



A true
B false

C frequency
D amplitude

Matter's ability to **bounce back** after it is disturbed is called _____.

A reflection
B elasticity
C rarefaction
D compression

b

The phrase "heat lightning" is often used when people see lightning but **do not hear thunder**. What is the explanation for this?

A Lightning does not always cause thunder.
B Thunder was produced, but the sound was too far away to be heard.
C Some thunder frequencies are high above the range of human hearing.
D Some thunder frequencies are below the range of human hearing.

b