

## SOUND WAVES NOTES

If a tree falls in a forest and no one hears it, does the tree make a sound?

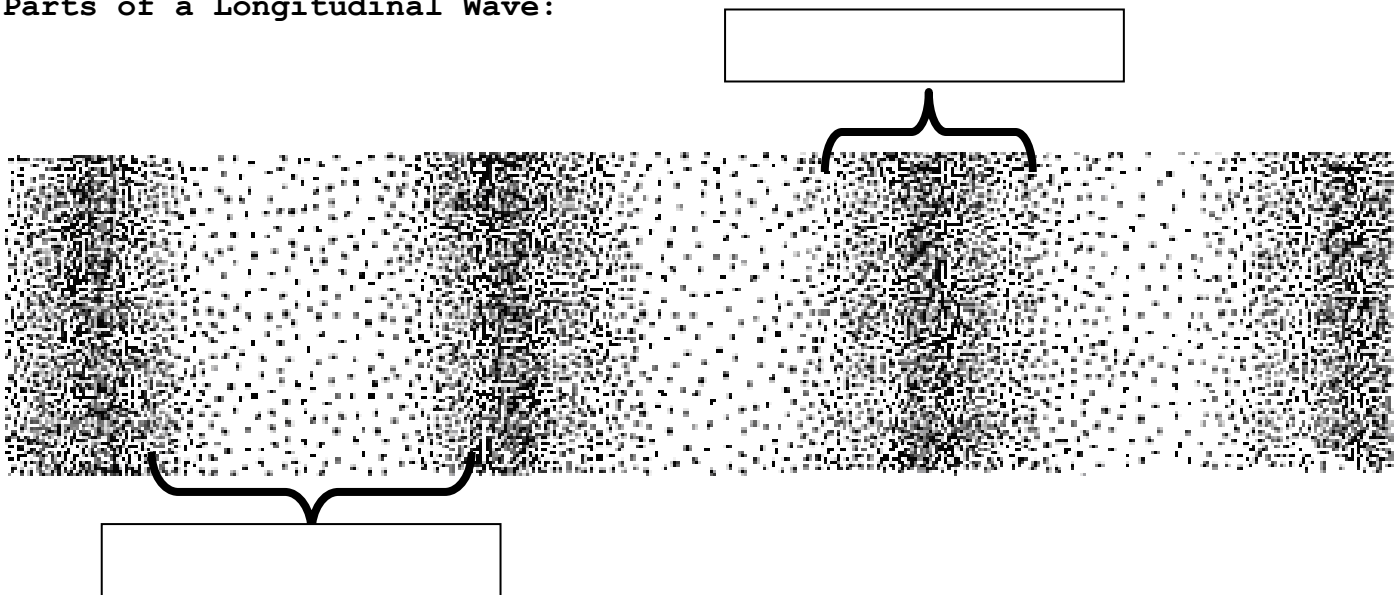
What has to occur for a sound to form?

What is a vibration?

What does a vibration do to the air molecules that surround the object making sound?

What type of wave is a sound wave?

Parts of a Longitudinal Wave:



Does a sound wave travel in a straight line?

### The Speed of Sound

At \_\_\_\_\_ (about 20°C), sound travels through air at about \_\_\_\_\_ meters per second!

The speed of sound depends on factors such as

- 1.
- 2.

What is temperature?

If a sound wave is moving through a hot substance, will it be easier or harder for the wave to travel?

Why?

What is Density?

Which would transfer sound more quickly? Solid, liquid, or gas?

Why?

Properties of Sound

1.

2.

What is Loudness?

What is Pitch?

What determines pitch?

What is frequency?

If more waves pass a point in a certain amount of time, the pitch will be

\_\_\_\_\_.

So the faster an object vibrates, the \_\_\_\_\_ the pitch and vice versa.