

Name \_\_\_\_\_ Pd \_\_\_\_\_ Date \_\_\_\_\_

# Properties of Sound

**Directions:** Read pages 42-47 in your "Light and Sound" text book. As you read, fill in key concepts in the blank spaces below.

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What kind of wave is a sound wave? \_\_\_\_\_

How do you know?

\* **Loudness** – your perception of the \_\_\_\_\_ of a sound.

It depends on...

Ⓢ The amount of \_\_\_\_\_ it takes to make a sound

Ⓢ \_\_\_\_\_ from the source of the sound.

Loud sound waves  
have high \_\_\_\_\_.



Soft sound waves  
have small \_\_\_\_\_.

Loudness is measured in \_\_\_\_\_ (abbrev: \_\_\_\_).

\* **Pitch** – how \_\_\_\_\_ or \_\_\_\_\_ the sound seems to a person's ear.

Pitch depends on the \_\_\_\_\_ of a sound wave.

High \_\_\_\_\_  
(fast vibrations)  
have a \_\_\_\_\_ pitch.



Low \_\_\_\_\_  
(slow vibrations)  
have a \_\_\_\_\_ pitch.

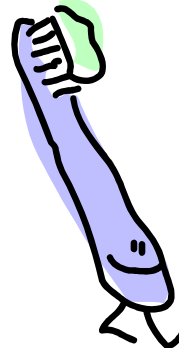
\* Most people can hear frequencies between \_\_\_\_\_ ( ) and \_\_\_\_\_ ( ). (1 Hz = 1 vibration per second)

\* **Ultrasound** – sound waves with frequencies

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**Some things that create ultrasound:**

- **Ultrasound machines:** used to see pictures of a baby in the womb
- **Electronic toothbrushes**
- **Jewelry cleaners**
- **Bats & Dolphins**
- **Dog whistles**

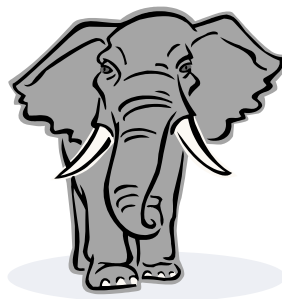


\* **Infrasound** – sound waves with frequencies

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**Some things create infrasound:**

- **Elephants** use it to communicate by stomping on the ground
- **Giraffes** produce it when stretching their necks
- **Airplanes**
- **Earth Quakes**
- **Thunderstorms**
- **Whales**



\* **The change in frequency of a wave as its source moves in relation to an observer is called the \_\_\_\_\_.**