# Sound

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5th Grade



## What Makes Sound

- •*Vibration* <u>-</u> A back-and-forth motion
- •Sound Waves –A vibration that spreads away from a vibrating object.



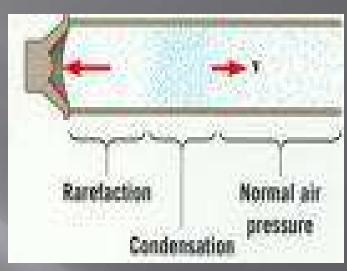
#### How Sound is Produced by Strings

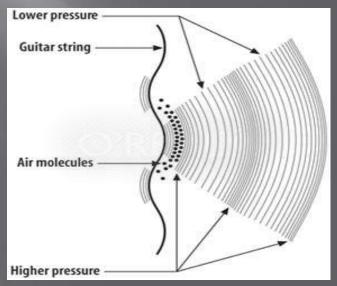
- •The strings make pitch
- •A thinner string vibrates faster and produces a higher pitched sound than a thicker string.
- •A thicker string vibrates slower and produces a lower pitched sound than a thinner string.
- •When you press the frets, you change the length of the vibrating portions of the strings.
- •Tuning pegs are turned to tighten or loosen the strings.



#### What Makes Sound

- •Compression-the part of a sound wave where molecules are crowded together.
- •Rarefaction-the part of a sound wave where molecules are spread apart.





### What Sound Can Go Through

Solids- You can tell when sound is going through a solid just by putting your ear on a tabletop. Someone could tap the end of a table and you could hear the tap louder than if you were standing in the hall.

Liquids- if you go swimming, you could probably hear sounds in water around you. You would also be able to hear someone shouting above the surface.

Gases-You can hear sounds in the air around you. The sound waves make parts of your ear vibrate. Since air is a mixture of gases, you can tell that sound waves can go through gases.

