



**SCIENCE**  
**CHAPTER 7- ENERGY**  
**LESSON 2- SOUND**  
**SOUND LAB**



**Created by- Nisha Tanwar**



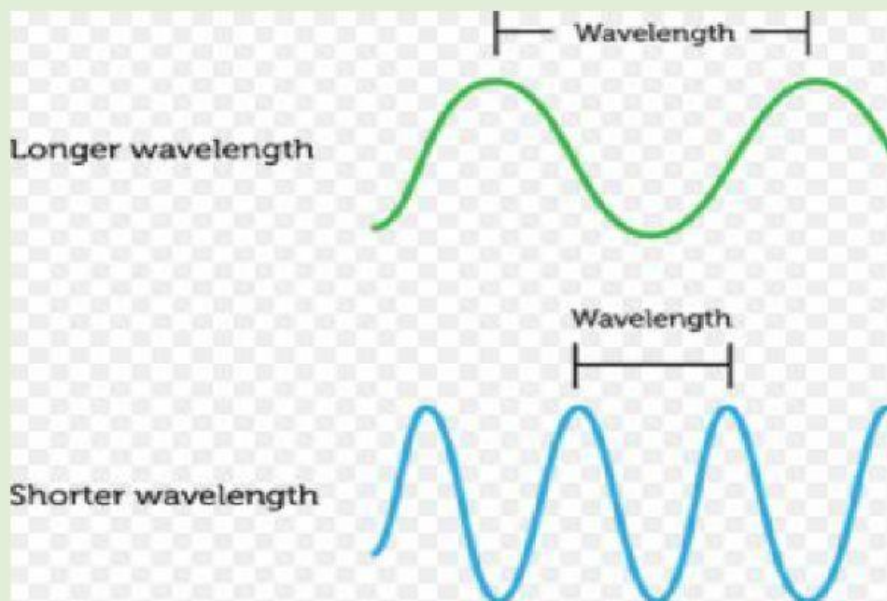
## LAB BASED QUESTIONS



**CLICK ON  
YELLOW ICON  
TO OPEN  
VIRTUAL LAB**

## WAVELENGTH

It is the number of vibrations in one second



CLICK ON YELLOW ICON TO OPEN SOUND LAB



live input

Square

Sine

Sawtooth

Triangle

Volume

Play with a wave

Frequency

Q W E R T Y U I O P [ ]

Which one has longer wavelength?

W

P

live input

Square

Sine

Sawtooth

Triangle

Volume

Play with a wave

Frequency

Q W E R T Y U I O P [ ]

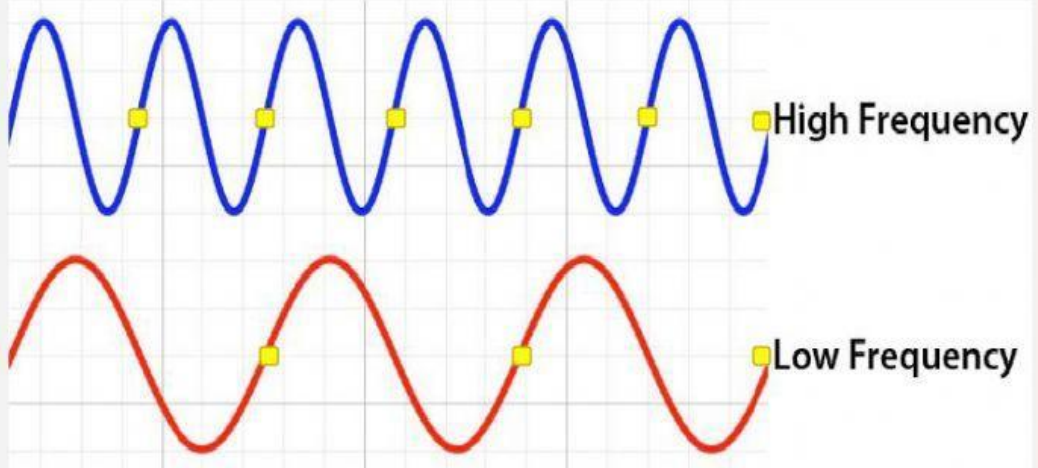
Which one has shorter wavelength?

Q

P

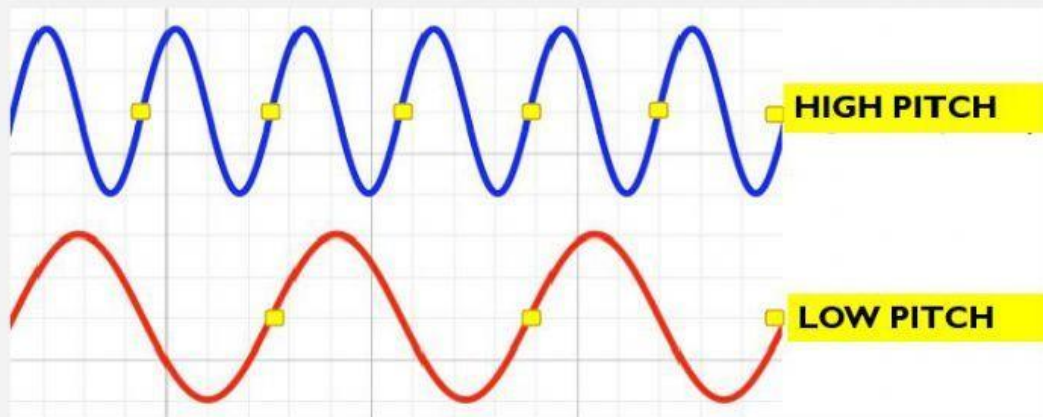
# FREQUENCY

Number of waves in 1 second



# PITCH depends on frequency

It is degree of highness or lowness of sound



CLICK ON YELLOW ICON TO OPEN SOUND LAB |



live input

Square

Sine

Sawtooth

Triangle

Volume

Play with a wave

CLICK HERE

CHANGE FREQUENCY TO SEE HIGH AND LOW FREQUENCY

Frequency

2 3 5 6 7 9 0 =

Q W E R T Y U I O P [ ]

Which one has higher frequency?

live input

Square

Sine

Sawtooth

Triangle

Volume

Play with a wave

687

Frequency

live input

Square

Sine

Sawtooth

Triangle

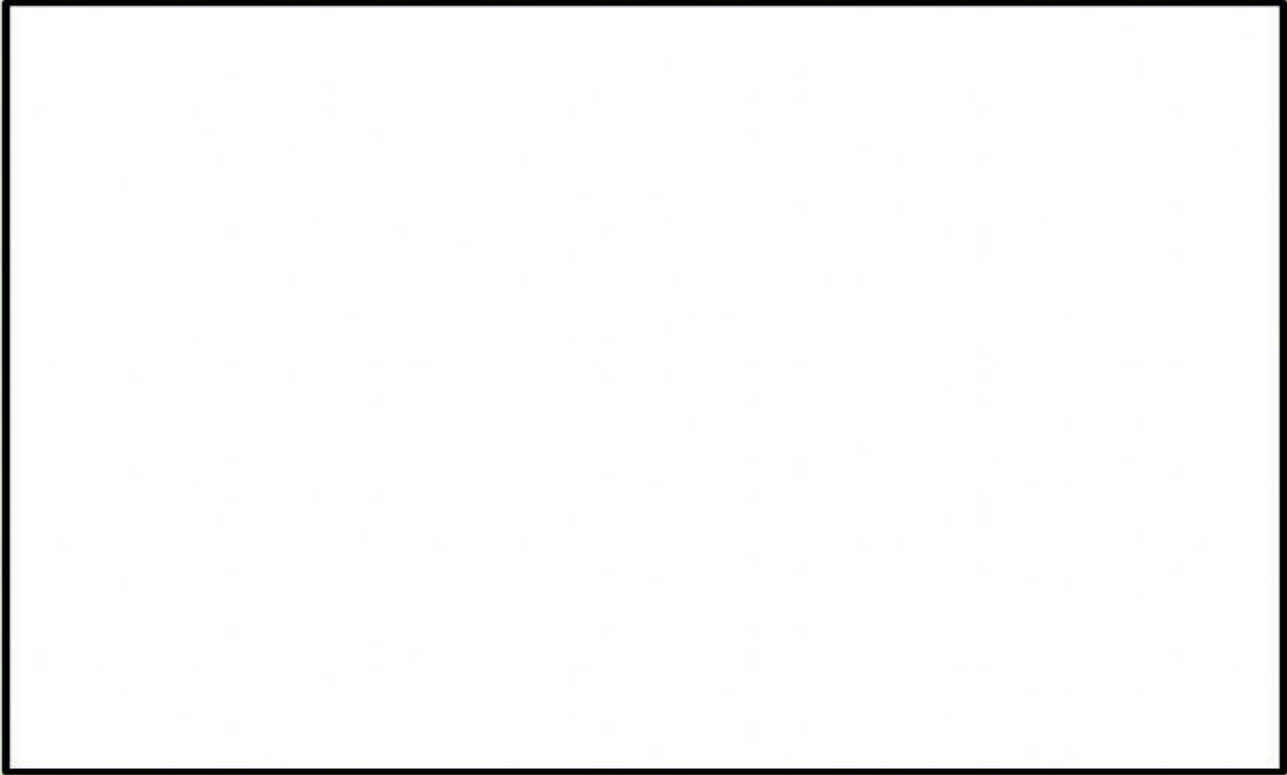
Volume

Play with a wave

898

Frequency

**WATCH THE VIDEO AND DETERMINE IF THE  
SOUND IS HIGH OR LOW PITCH**



1.

Tea kettle:

2.

Timpani:

3.

String bass:

4.

Piccolo:

5.

Lion roar:

6. Triangle:

7. Bear growl:

8. Whistle:

9. Witch cackle:

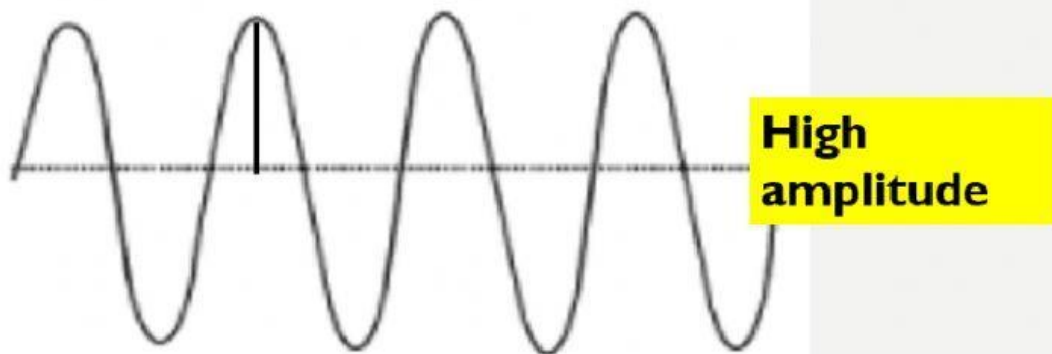
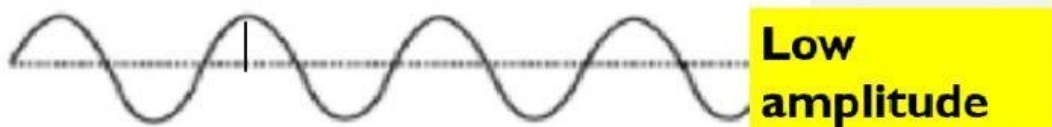
10. Tuba:

11. Chick:

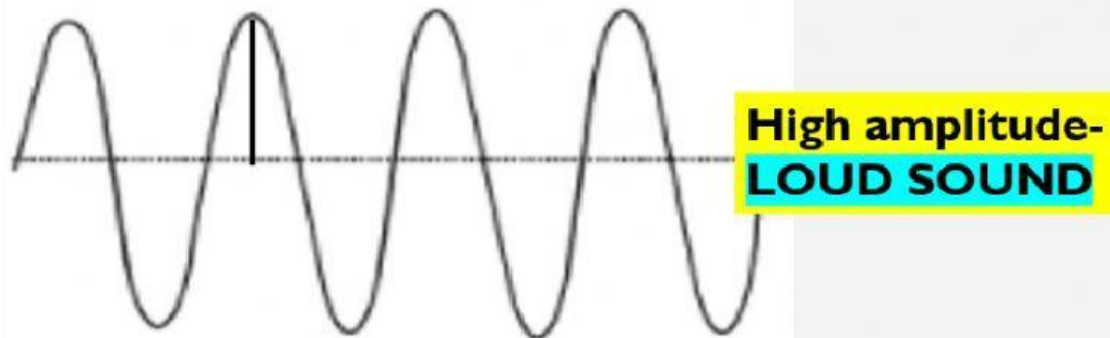
12. Pirate:

## AMPLITUDE

**Amount of energy in the sound wave**



# LOUDNESS DEPENDS ON AMPLITUDE



CLICK ON YELLOW ICON TO OPEN SOUND LAB |



live input  
Square  
Sine  
Sawtooth  
Triangle

CLICK HERE

CHANGE VOLUME TO SEE HIGH AND LOW AMPLITUDE

Volume

Play with a wave

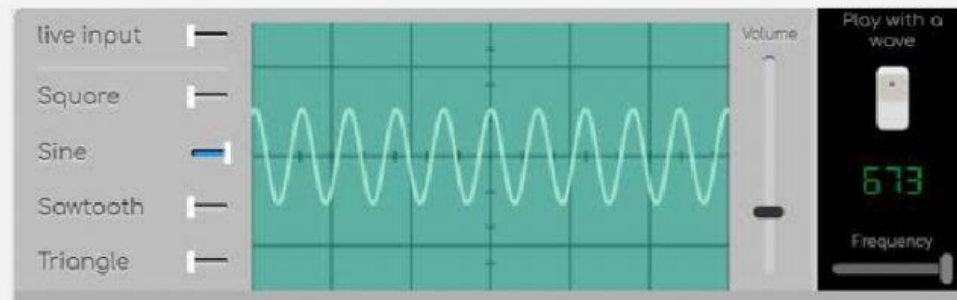
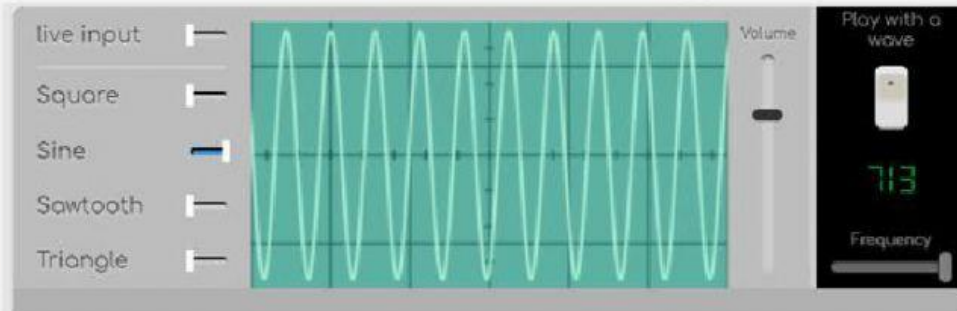
Frequency

2 3 5 6 7 9 0 =

Q W E R T Y U I O P [ ]



## Which one has higher amplitude?



## Which one has low amplitude?

