



SCIENCE
CHAPTER 7- ENERGY
LESSON 2- SOUND
PART 2



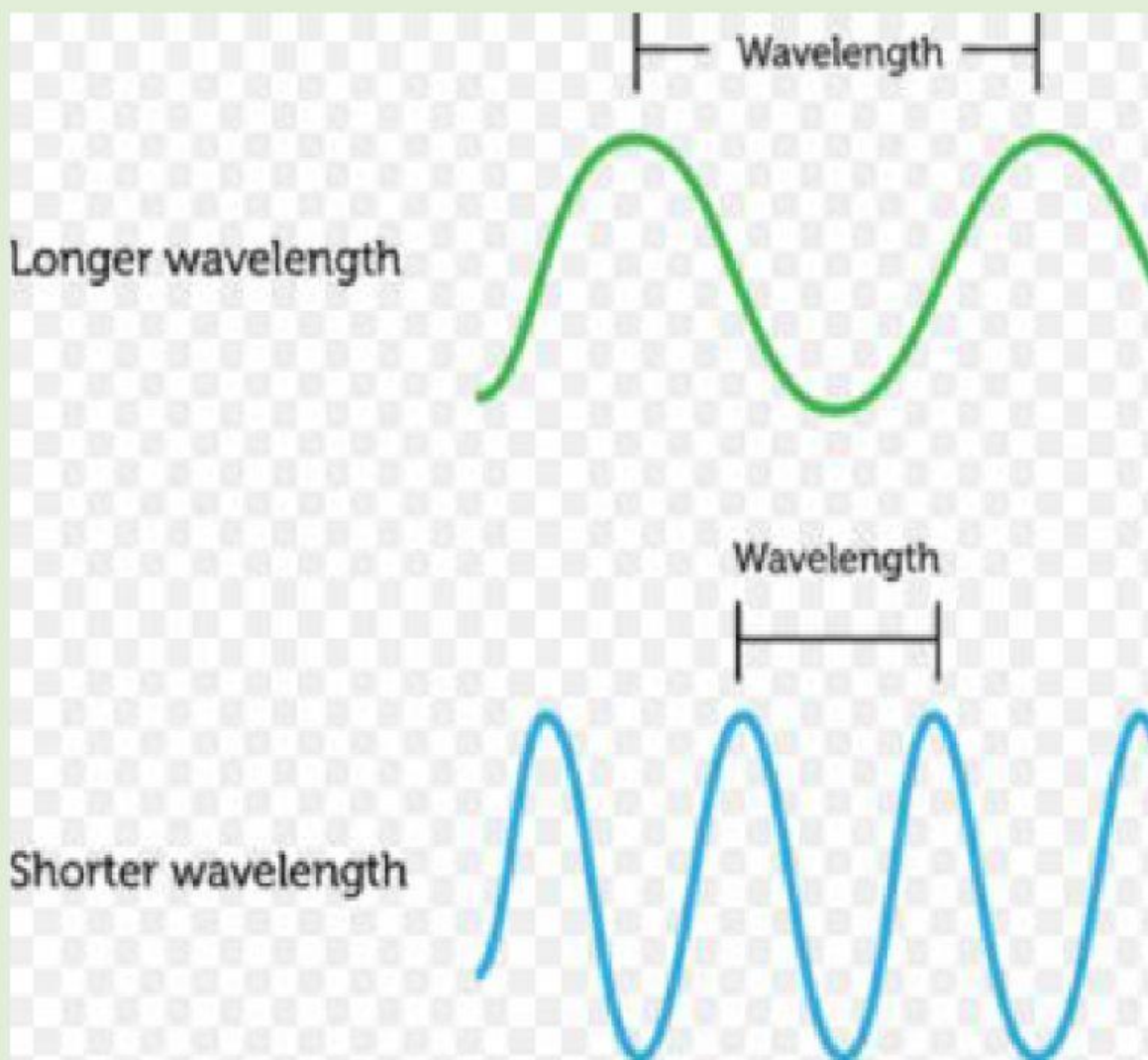
Created by- Nisha Tanwar

HOW DO SOUNDS DIFFER?

❖ Each sound wave has a wavelength and frequency.

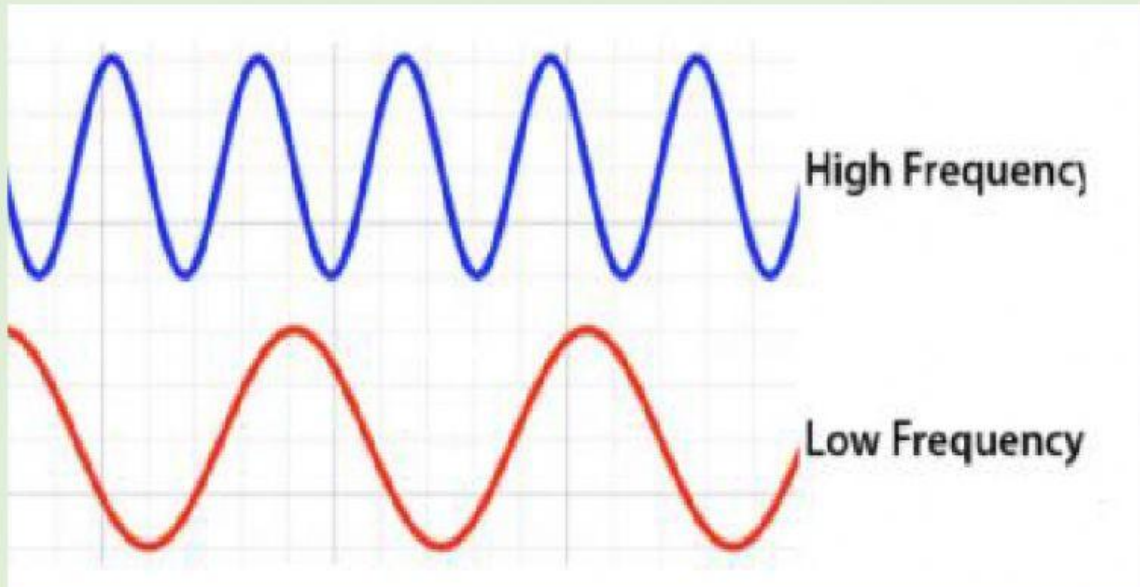
WAVELENGTH

It is the distance from the top of one sound wave to the top of next sound wave.



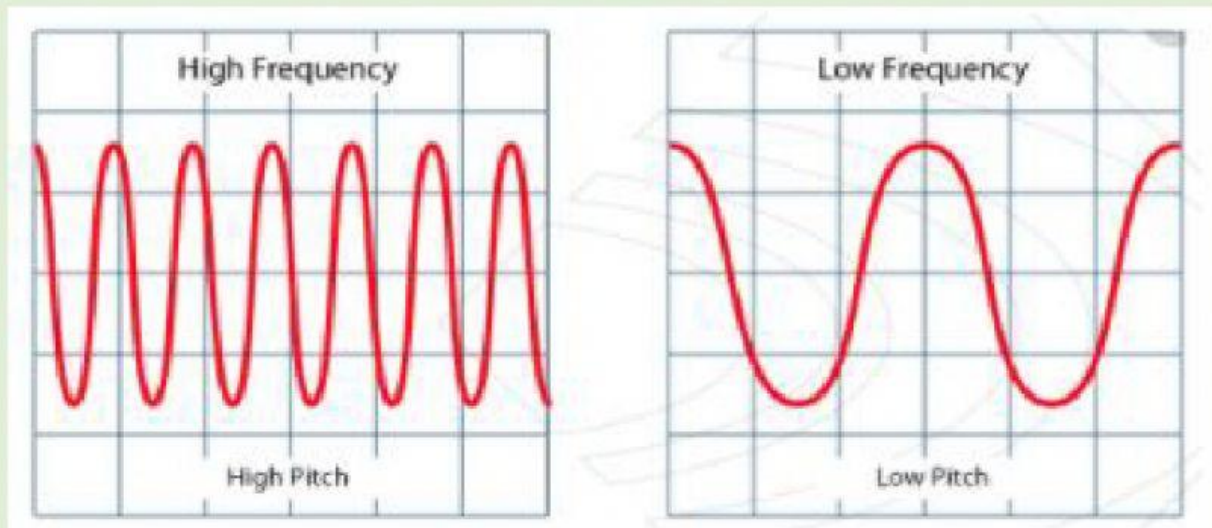
FREQUENCY

It is the number of vibrations in one second



Frequency determines pitch

The frequency of a sound wave determines its pitch. **Pitch** is the perceptual quality which permits the distinction between a low frequency sound and a high frequency sound. High sounds, like the beat of a mosquito's wings, have high frequencies. Low sounds, like the croaks of a toad, have low frequencies.



AMPLITUDE

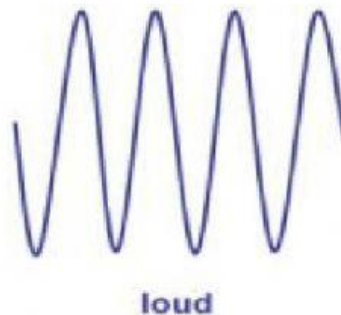
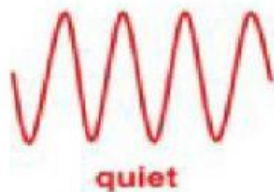
Amount of energy in a sound wave is called amplitude.



AMPLITUDE AFFECT LOUDNESS

Amplitude affects the **Loudness** of sound. As an airplane takes off, sound waves with high amplitude fill the air. The sounds are loud. When you whisper, your vocal cords vibrate just a little. The sound waves have low amplitude. The Loudness is low.

The loudness of a sound increases with the amplitude of the sound wave.

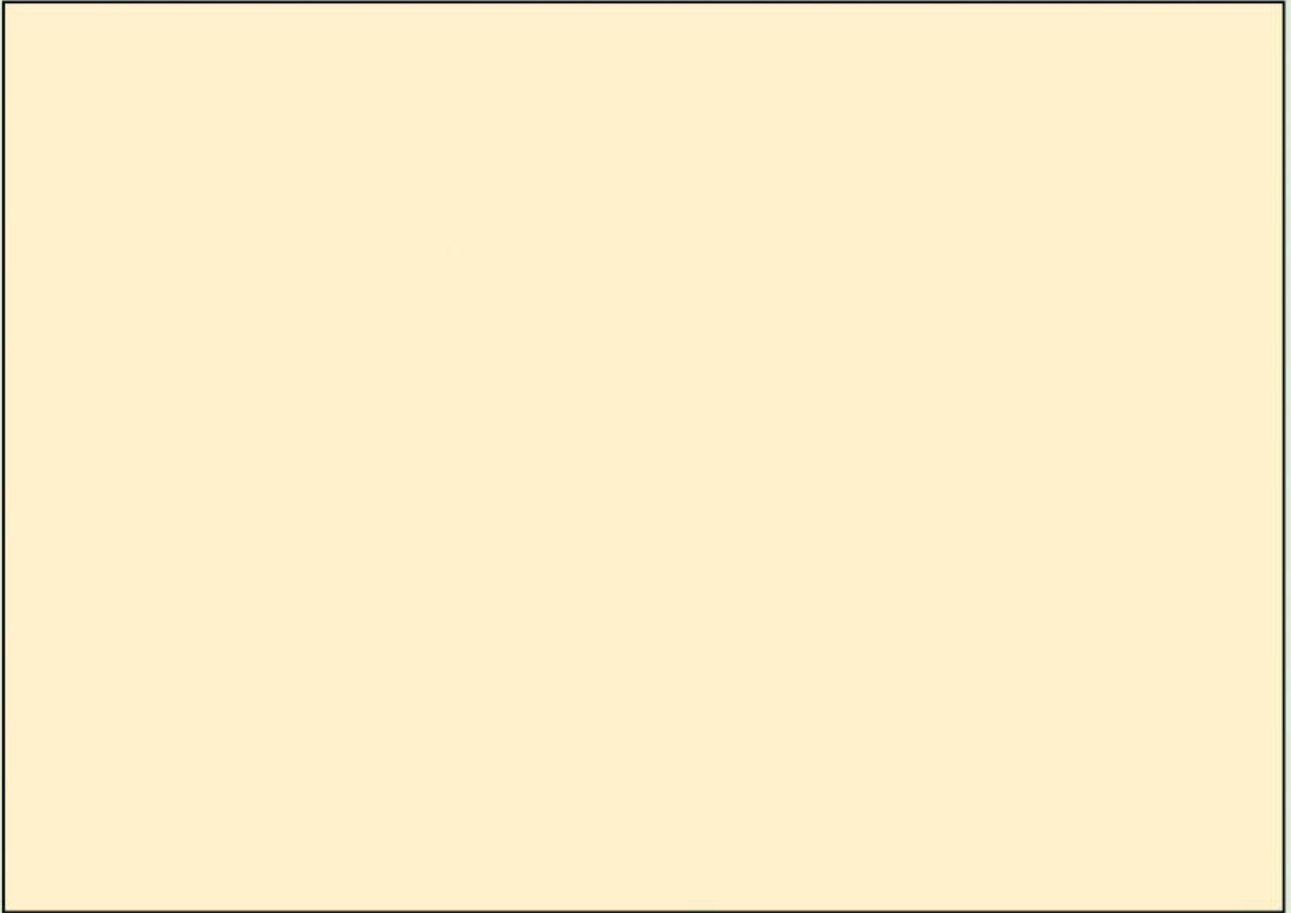


Whistle
High pitch sound



Drum
Low pitch sound

WATCH VIDEO ABOUT HOW SOUNDS DIFFER?



QUESTIONS FROM BOOK

1.

Vocabulary. Perceptual quality which permits the distinction between a low frequency sound and a high frequency sound is the

_____.

2. Test Prep. A sound wave with high amplitude produces which kind of sound?

- A** high pitched sound **C** loud
B low **D** fast

3. When a sound has a great deal of energy, it also has a high _____

4. High frequency sound has _____
pitch.

5. Low frequency sound has _____
pitch.

6. Loud sound has _____ amplitude.

7. Quiet sound has _____ amplitude.

8. Frequency determines _____.

9. Amplitude affects _____.