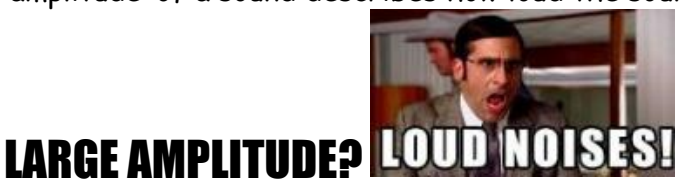
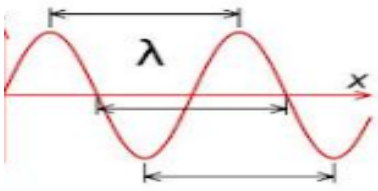
Topic 1- Waves	SCN 4-11a

Use the circles to help you with your learning

☺ I know this well ☹ I know this a bit ☹ I don't know this yet

I know that sound is produced when things vibrate. 	○
I know that sound can travel through solids, liquids and gases.	○
I know that sound vibrations are carried by a sound wave.	○
I "may" also know that sound travels best through a solid, then a liquid, then a gas, because the particles are closer together.	○
I can participate in; and describe an experiment to measure the speed of sound in air.	○
I know that the speed of sound in air is 340 metres per second (m/s)	○
I know that the 'pitch' of a sound describes how high or low the sound is.	○
I know that 'frequency' is another name for 'pitch.'	○
I know that frequency is measured in units called 'hertz' (Hz)	○
I know that the 'amplitude' of a sound describes how loud the sound is. 	○
I know that the 'wavelength' describes the distance from a point on one wave to the same point on the next wave 	○

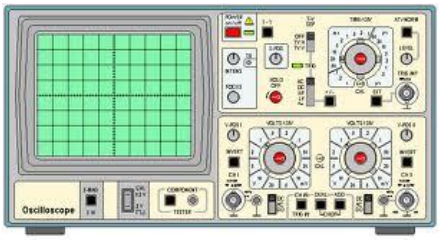
I know that

- The frequency of a wave (f)
- The wavelength of a wave (λ)
- The speed of a wave (v)

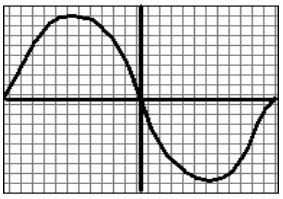
Are all related by the equation $v = f\lambda$

$$v = f\lambda$$

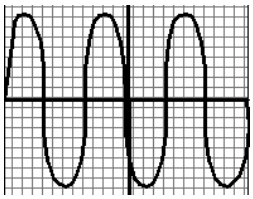
I know that I can use a device called an Oscilloscope to look at sound waves.



I know what changing the frequency of a wave will do to its appearance.

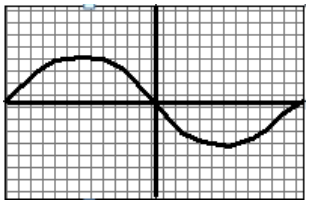


Low frequency sound

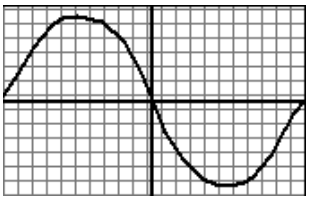


High frequency sound

I know what changing the amplitude of a wave will do to its appearance.

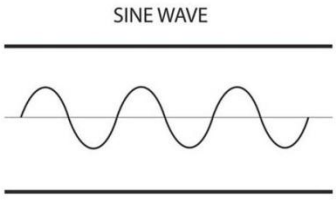


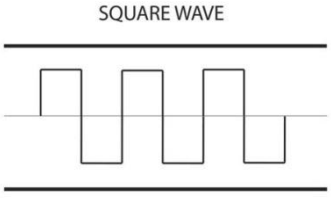
Quiet Note, low amplitude



Loud note, high amplitude.

I "may" also be able to compare normal 'sine' waves with 'square' waves, and how their sounds differ from each other.





I "may" also be able to use computer software to record sound waves, edit them, and add effects like a sound engineer might.