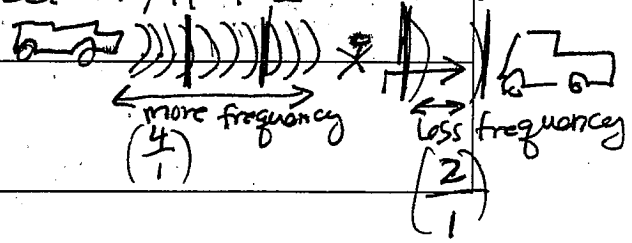
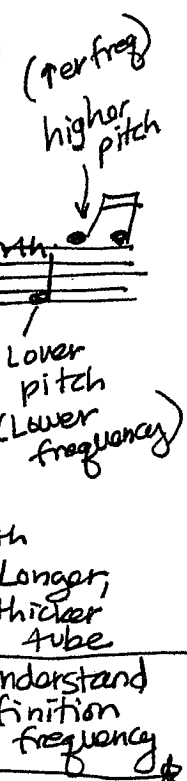
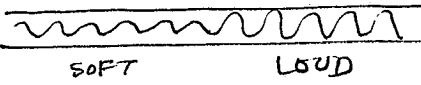
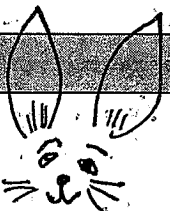
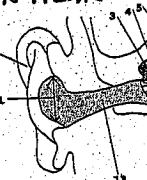
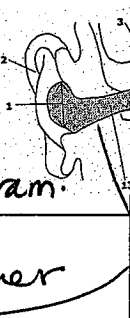


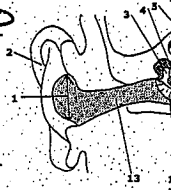
Name: Both's Notes for the Log Date: (C)

In groups, you will be responsible for presenting to the class a definition for the assigned sound/light wave vocabulary in a creative and interactive way. Please note: each of the following vocabulary words will be tested on an upcoming exam. ALSO: I highly recommend you draw what the WAVE will look like.

Vocabulary word	Definition or Formula	A fun, creative way to remember this term (drawing, skit memory, poem, etc.)
Sound vocabulary		
Compression	showed music notes on a score	pulse of compressed air particles of air move back + forth.
Pitch	Flint Sara <u>PITCH</u>	pulse - showed u-tube of a pulse-wave moving through earth - P-wave.
Low pitch	Kyle Tak	Δ in frequency a term that refers to how \uparrow or \downarrow sound frequencies appear to be.
High pitch	Harrison	LOW HIGH Same as \downarrow frequency bass clarinette Longer wave length Longer, thicker tube
Loudness/Volume	Taron	regular clarinette short wavelength * understand definition of frequency
Medium	Marie	magnitude of a sound or \uparrow amplitude. Δ in amplitude Vol. - can be measured.
Wave length	Miguel	soft Loud LOUDNESS - psychological sensation that goes to the brain (personal experience) My voice - Talking - through air.
Velocity/Speed	Phoebe	what is the wave traveling through? wave des as it enters a new medium.
Compressional/Longitudinal	Kyle Tan	showed mythbusters RUBINS TUBE distance from crest to crest \rightarrow this Δ es based on pitch.
Doppler effect	Pete	$\frac{\text{distance (m)}}{\text{time (sec)}} \text{ or } \frac{\text{freq}}{\lambda \text{ (wavelength)}}$ speed of sound changes depending on the medium its going through.
Hertz	Missy	Waves that carry <u>sound</u> energy
		The frequency of a wave due to motion of the source (or receiver, if the receiver is moving.)
		unit of frequency 1 cycle per sec = 1 Hz measurement of sound.



Vocabulary Word	Definition or Formula	A fun, creative way to remember this term (drawing, skit memory, poem, etc.)
Volume Meghan	change in amplitude 	
Shock wave Austin	A cone-shaped wave produced by an object moving at @ supersonic speed.	SUPERSONIC = - Faster than the speed of sound.
Sonic boom Kristi	The sharp crack heard when a shock wave reaches the listener.	
Echo	Repeating of a sound caused by reflection of sound waves off a surface.	
Decibels- How can you make a sound louder?	Unit used to measure a signal relative to some reference level	(dB) 70 dB is softer than 100 dB
Ear Anatomy		
Outer ear/ Pinna Miguel + Kyle	#2 on diagram Catches sound waves	 ← BIG PINNA! YOU CAN HEAR A PIN DROP!
Ear drum/Tympanic membrane Aaron	#12 Sound waves enter via the pinna, travel through canal + vibrates the membrane.	
Malleus/hammer Sara Kyle T	Latin word for hammer = malleus - good animation online. #3 on diagram	
Stapes/stirrup Austin	Innermost of 3 small bones in the middle ear #6 on diagram	
Incus/anvil Melissa + Marie passes vibrations from hammer to stirrup.	Incus - Latin word for anvil - the hammer would hit the anvil to shape leather/metal #4 on diagram.	
Eustachian Tube Krishi	A tube that goes from nose + mouth to equalize the pressure on either side of eardrum.	
Oval window Meghan	It vibrates like the eardrum/tympanic membrane when the stapes moves/vibrates.	

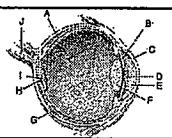

Vocabulary Word	Definition or Formula	A fun, creative way to remember this term (drawing, skit memory, poem, etc.)
Cochlea Harrison	# 8 on diagram. Snail like - converts the physical vibrations into chemical impulses and sends them to	
Auditory nerve Pete	the auditory nerve - which sends the electrical impulses to the brain (# 7 on diagram)	
Semicircular canals Austin + Aaron	Filled w/ fluid + lined w/ hair cells.	

Sample Sound Problems

1. A sonar unit on a ship emits a sound wave. The echo from the ocean floor is detected 2 seconds later. If the speed of sound in water is 1500 m/s, how deep is the ocean beneath the ship? Be sure to include units.

2. The wreck of the passenger ship Titanic is at a depth of about 3800 m. A sonar unit on a ship emits a sound wave that travels at a speed of 1500 m/s. How long does it take a sound wave reflected from the Titanic to return to the ocean surface?

Light Vocabulary & Eye Anatomy

Transverse	Waves that carry light energy	
Cones		
Rods		
Cornea		
		

Vocabulary Word	Definition or Formula	A fun, creative way to remember this term (drawing, skit memory, poem, etc.)
Pupil		
Retina		
Lens		
Optic nerve		
Sclera		
Macula		
Prism		
Refraction		
Concave		
Convex		
White Light		
Reflection		
Electromagnetic spectrum		
Transverse		

