Pioneer Cornell Notes Page

Topic: Properties of Sound
Green Group

Name:	**Date:**
Class:	**Period:**
Subject:	**Teacher:**

Main ideas/Questions:	Note Taking Column
A question about sound that I have that I want to find out in this lesson is…	I What is sound? I What is sound? It's a vibration! A. Anything that _____ produces sound.. Sound is produced when matter vibrates and travels as a_____ wave.
Why do you think a Dr. uses a stethoscope when he wants to listen to your lungs:	
Diagram some of the factors that affect sound's speed.	B. The speed of how fast sound travels can be _____ _____) =_____ _____ _____
Medium:	C. The speed of sound can change depending upon these 4 factors: 1. **The _____** the sound is traveling through. 2. **The _____ of the medium** a. _____ the temperature of a medium makes the motion of the particles _____ and they move _____. b. It's _____ for the particles to move and return to their original _____ when the wave has passed. c. Sound can travel _____ when the temperature is higher. 3. **The Medium's _____** How well the particles can return to their original position after the wave passes by them. a. It's _____ for sound to travel through the medium when the particles are bound _____ together (like concrete) rather than _____ whose particles are loosely bound like sand or _____. b. _____ are more _____ than liquids or gases. c. Particles in solids don't move very far apart and they _____ back to their original positions easily after the _____ passes _____ them 4 **The _____ of the medium** (the number of particles in a _____ _____) a. The _____r the medium, the_____ the sound can travel because sound needs to get the molecules _____ The more molecules there are _____ _____ the sound will _____. b. The _____ the wave the harder it is for_____t to travel.
Temperature:	
Density:	
Would you be able to talk on the moon?	

How is frequency measured? Give an example of a musical instrument that has a high frequency . A low frequency? Give examples of what produces infrasonic waves.	II. _____ and frequency. A. Pitch is how _____or how _____the sound is. 1. The pitch of a sound depends on how fast the particles of the _____ are moving or _____. 2. _____complete vibration, one compression and one_____ makes up a wave, so the pitch of the sound depends on the number of waves produced within _____ _____ time. 3. This is the definition of frequency and it's measure in _____ a. Sound waves that have a _____ frequency will have a _____ _____. b. Sound waves that have a ____ frequency will have a _____ pitch B. Frequencies is an especially important _____ of sound because the _____ can respond to only_____ frequencies. 1, The normal human ear is capable of detecting about _____ _____ per second, or hertz. 2. Sounds with higher frequencies than this are called _____ because they are _____ the range of _____ hearing. a. Some animals, such as dogs, can hear frequencies up to _____ _____ b. _____ can hear frequencies as high as _____ hertz c. Porpoises can her frequencies up to _____ hertz d. _____actually produce ultrasonic sounds then use the _____ to locate prey or to avoid_____ into objects. 3. Sound wave frequencies below 20,000 hertz are called _____ . You _____ hear these either. a. Elephants can communicate when their voices are at frequencies of _____… we _____ hear _____ b. _____ and volcanoes can have frequencies as low as _____ Hz 2. Now Look on page **554** in the green Glenco science book. Copy the information on how fast sound travels from ***figure 17.8***
Summary: please write a summary about what you've learned from these notes. Your summary needs to be from 6-8 sentences. You can add additional information that you have researched to receive 4 pts. on your summary. Remember sentences start with capital letters and end with end-marks. Include key words: frequency, pitch hertz infrasonic and ultrasonic	