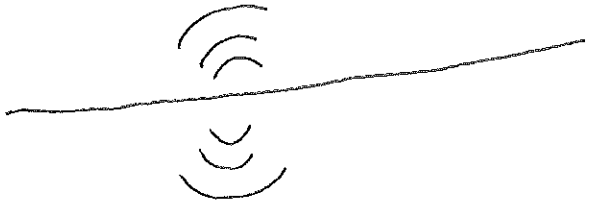
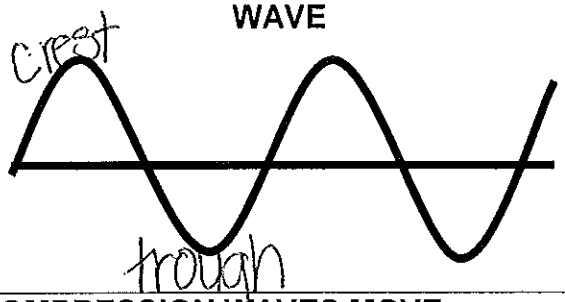
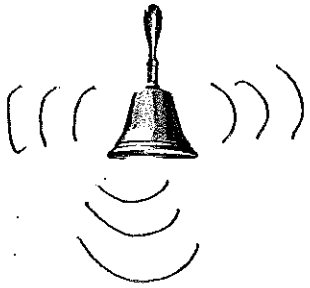
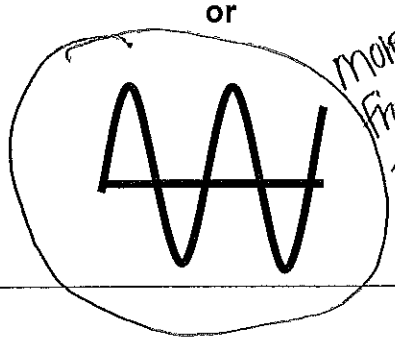
Day 1

SOUND
SOL 5.2

Sound is a form of energy produced and transmitted by **vibrating** matter.	**Vibrate** means to move back and forth. Draw a picture of a string **vibrating**. 
Sound travels in waves. A **wave** is a disturbance moving through a medium (solid, liquid, or gas). A the top of a wave is the **crest**, and the bottom of a wave is a **trough**. **Label the crest and trough on the picture.**	**WAVE** 
Sound is a compression wave moving outward in all directions from its source. ***Compressional waves*** carry sound energy and require a medium through which to travel. Matter vibrates in the same direction as the wave is traveling, and waves travel slower than light or transverse waves.	**COMPRESSION WAVES MOVE OUTWARD IN ALL DIRECTIONS:** 
Sound waves can be described by their **wavelength**. The wavelength of the sound is the distance between 2 compressions. You measure wavelength from crest to crest or trough to trough.	**Which waves have a greater wavelength?**  **or** 

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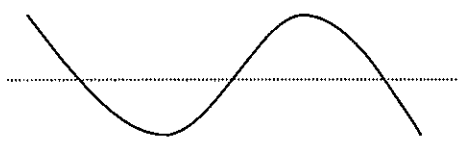
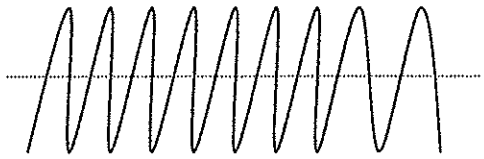
Sound can also be described **frequency** of the waves. The **frequency** of sound is the number of vibrations in a given unit of time. **Pitch** is determined by the frequency of a vibrating object. Objects vibrating faster have a higher pitch than objects vibrating slower.	**Which waves below have the higher frequency and pitch? Label them *high* and *low.*** low   high
Sound waves require a medium (solid, liquid, gas) through which to travel.	**Can sound be heard in outer space? Why or why not?** no, because it is a vacuum. and there no matter.