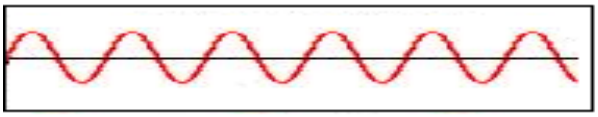
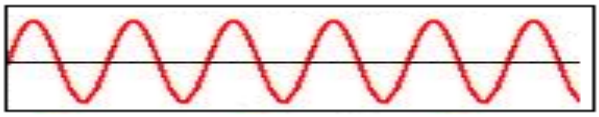
MOVIE--- Real World Science: Sound /28 NAME _____HR _____

THIS MOVIE CAN BE FOUND ON OUR WEBSITE: ITHACA.GLK12.ORG

1. What exactly is a sound? Sound is _____.
2. Vibration is a movement, either back and forth or up and _____ .
3. The vibration of the Bell disturbs the surrounding air and the sound travels through the air to your _____ in the form of a wave.
4. The sound waves travel to your ear and your _____interprets the sound.
5. A _____ is any solid (like the ground) or a gas (like air), or liquid (like water).
6. In outer space you can't hear anything because there is no air, so there is no medium that the _____ waves can go through.
7. When water is disturbed it causes energy waves to go _____ from the source of the disturbance.
8. Where the molecules are squeezed together it's called _____ and where the molecules are stretched apart it's called a **rarefaction**.
9. High points of the wave are called _____.
10. Low points of the wave are called _____.
11. Amplitude describes how _____ or soft a sound is.
12. The unit of measurement used for amplitude is the _____, shown as the symbol **dB**.
13. Which one of these is loud? Which one is quieter? Label below the picture.





_____ _____

14. When sound is over 120 decibels, it can be dangerous. The sensation of sound is replaced by a sensation of _____.
15. _____ is the measurement of the distance between 2 high points or two low points on a wave.
16. Frequency a measurement of the number of waves that _____ a certain point in a given time.

17. Frequency is measured in units called _____ , shown as a symbol **Hz**.

18. Frequency determines what is called the _____ of sound, (or how high or low a sound is).

19. A flute, for instance, has a _____ frequency and higher pitch than a tuba, which has lower frequency and thus a lower pitch.

20. What animal hears higher frequencies than humans? _____

21. The process of using echoes to locate objects is called _____.

22. An ultrasound exam is a procedure that uses high frequency sound _____ to scan a woman's abdomen to create a picture of a baby and placenta.

23. The rate at which sound travels through the air is approximately 340 _____ per second at sea level -- that's over 760 mph!

24. If you take sound into water, it travels faster than it does in air. And sound _____ even faster in steel.

25. The quality of a medium that describes how quickly molecules bounce against each other is known as _____.

26. Sound travels faster in solids than in gases or liquids because solids are more _____.

27. The colder a medium gets, the _____ the sound will travel through it.