**Study Questions for Chapter 4**

1. What is a wave?
2. How do waves propagate? (2 ways) FYI Know what propagate means.
3. What are the parts of both transverse and longitudinal waves?
4. What is a wavelength for both of these waves?
5. What is the symbol for wavelength?
6. What does the wavelength tell you about the wave?
7. What is amplitude for both?
8. What does the amplitude tell you about the wave?
9. What is the symbol for amplitude?
10. What is frequency?
11. How do you calculate frequency?
12. What does frequency tell you about sound?
13. What happens to energy when it meets a new medium?
14. What are the two **types** of waves?
15. What is the difference between these two types of waves?
16. What is a sound wave?
17. Put matter in order from fastest to slowest as to how sound travels through it.
18. What does the decibel scale tell you about sound?
19. What is its symbol?
20. How to do calculate the comparison between one decibel reading and another?
21. At what exposure can hearing loss begin?
22. At what exposure is hearing loss immediate?
23. What is the human range of hearing for frequency?
24. What are the two ends of this range called?
25. What is a light wave?
26. What are the 3 things that can happen to a light ray?
27. What are the names of the rays that make the initial contact with a surface and the rebounding rays called?
28. What are the names of the angles they create called?
29. What are those angles measured from?
30. What are the two types of reflection? Give examples.
31. Explain light refraction.
32. What are the two types of lenses that can refract light? Draw them.
33. What types of images can be formed: by a converging lens? By a diverging lens?
34. What is myopia and how do you correct it?
35. What is hyperopia and how do you correct it?
36. What is presbyopia and how do you correct it?