HONORS PHYSICS - RED

1. Sound
   1. I can describe the behavior of sound waves and relate it to the previously observed behavior of water waves.
   2. I can recognize that a sound wave is a longitudinal wave.
   3. I can explain that sound is a mechanical wave and thus requires a medium.
   4. I can describe the relationship between the velocity, frequency, wavelength, and temperature of sound waves.
   5. I can solve problems involving frequency, velocity, wavelength and temperature.

3.5 I can explain the effect of frequency (wavelength) on the pitch of sound.

* 1. I can describe sympathetic vibrations or resonance.
  2. I can explain how the Doppler Effect changes the pitch of a sound, and calculate the apparent change in frequency.
  3. I can describe the relationship between pitch, loudness, and intensity.

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| ACTIVITY | TIME ALLOTMENT |
| Outside Reading Reference: Chapter 13. | HW |
| Tuning Forks and Resonance Lab | 2 |
| **HW – BOOK,** p. 368; 2-5, 7, 8, 14-18, 24, 30, 33 | HW |
| **HW -** Speed of Sound Problem Sheet | HW |
| **HW –** Honors Sound Problem Sheet | HW |
| **CW –** Honors Resonance Problems | 1 |
| Audacity Lab | 1 |
| Review | 1 |
| **TEST** | 1 |
| TOTAL | 6 |

Pg. 368

24. 2058 m

30. 1.45e3 m/s

33. 3.56e-4 m

Sound Problems

1. 0.753 m, 331.5 m/s
2. 0.794 m, 349.5 m/s
3. 0.191 m, 0.588 m
4. 14.1 o C

Honors Physics Sound Problems

1.

2. 1029 m

3. A. 335 Hz B. 355 Hz

4. A. 280 Hz B. 263 Hz