**FPS – Waves notes 2**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

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| I can… |
| *Define properties of waves.**Identify the various behaviors of waves.* |

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| ***Thermal Energy - Notes*** |
| ***BELLWORK*** – List the properties of a wave.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | https://upload.wikimedia.org/wikipedia/commons/thumb/1/1e/Wave_characteristics.svg/350px-Wave_characteristics.svg.png |
| 1. Waves are ­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and they transport \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The energy of a wave is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

http://missionscience.nasa.gov/images/ems/emsAnatomy_mainContent_wave-energy.png |
| 1. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a measure of the wave \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. SOUND: amplitude corresponds to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.LIGHT: amplitude corresponds to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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| 1. ***What is the wavelength?*** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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| 1. ***Frequency – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** passing a stationary point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. ***Period (T)*** – length of \_\_\_\_\_\_\_\_\_\_\_\_\_ for one \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.If a source is oscillating with a period of 0.1 seconds
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| 1. ***https://upload.wikimedia.org/wikipedia/commons/b/b6/Wave_in_a_rope.pngWave Speed (v) –*** depends on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.Formula:***One end of a rope is vibrated to produce a wave with a wavelength of 0.25 meters. The frequency of the wave is 3 Hertz. What is the speed of the wave?***

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| 1. The relationship between frequency and wavelength:

http://spaceplace.nasa.gov/blue-sky/en/sky4.en.png |

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| 1. ***Behavior of Waves***

***-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* occurs when a wave \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a surface that it cannot pass through. A reflected wave has a smaller \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the original wave because some \_\_\_\_\_\_\_\_\_\_\_\_\_ is lost during reflection.**-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when a wave \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the wave moves more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the other side. -\_\_\_\_\_\_\_\_\_\_\_\_\_\_occurs when a wave \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when two or more waves \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| 1. add***Constructive interference*** -

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| 1. ***subtractDestructive Interference -***
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