**Graphical user interface

Description automatically generated with medium confidenceWave Properties** (Phys)

RAG your understanding.

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|  | **Start of Topic** | **End of Topic** | **Revised** |
| **Required practical.** I can make observations to identify the suitability of apparatus to measure the frequency, wavelength and speed of waves in a ripple tank and waves in a solid and take appropriate measurements |  |  |  |
| P.6.1.1.a -I can describe waves as either transverse or longitudinal, defining these waves in terms of the direction of their oscillation and energy transfer, and giving examples of each |  |  |  |
| P.6.1.1.b - I can define waves as transfers of energy from one place to another, carrying information, and therefore explain that for water and sound waves it is the wave itself and not the water or air that travels |  |  |  |
| P.6.1.2.a - I can define amplitude, wavelength, frequency, period and wave speed, and identify them where appropriate on diagrams |  |  |  |
| P.6.1.2.b - I can state examples of methods of measuring wave speeds in different media and identify the suitability of apparatus of measuring frequency and wavelength |  |  |  |
| P.6.1.2.c - I can calculate wave speed, frequency or wavelength by applying, but not recalling, the equation: [ v = f λ ], and I can calculate wave period by recalling and applying the equation: [ T = 1/f ] |  |  |  |
| P.6.1.2.d (Physics only) - I can demonstrate how changes in velocity, frequency and wavelength are inter-related in the transmission of sound waves from one medium to another |  |  |  |
| P.6.1.3.a (Physics only) - I can describe a wave's ability to be reflected, absorbed or transmitted at the boundary between two different materials |  |  |  |
| P.6.1.3.b (Physics only) - I can draw the reflection of a wave at a surface by constructing ray diagrams |  |  |  |
| ***P.6.1.4.a (HT Physics only) - I can describe, with examples, processes which convert wave disturbances between sound waves and vibrations in solids, examples may include the effect of sound waves on the ear drum*** |  |  |  |
| ***P.6.1.4.b (HT Physics only) - I can explain why such processes only work over a limited frequency range and the relevance of this to the range of human hearing, which is from 20 Hz to 20 kHz*** |  |  |  |
| P.6.1.5.a (Physics only) - I can define ultrasound waves as having a frequency higher than the upper limit of human hearing, and explain how these are used to form images of internal structures in both medical and industrial imaging |  |  |  |
| P.6.1.5.b (Physics only) - I can compare the two types of seismic wave produced by earthquakes with reference to the media they can travel in and the evidence they provide of the structure of the Earth |  |  |  |
| P.6.1.5.c (Physics only) - I can describe how echo sounding using high frequency sound waves is used to detect objects in deep water and measure water depth |  |  |  |