Edexcel International GCSE Physics 4PH1 Learning Plan

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|  **Unit: 3 Waves** | **Chapter: 13. Sound** | **Hours: 4** |
| Content coverage | Learning outcomes | Resources | Assessment |
| Section 3: Wavesa) Unitsd) Light and Sound | **3.23** know that sound waves are longitudinal waves which can be reflected and refracted.**3.24P know that the frequency range for human hearing is 20–20 000 Hz** **3.25P *practical: investigate the speed of sound in air*** **3.26P understand how an oscilloscope and microphone can be used to display a sound wave** **3.27P *practical: investigate the frequency of a sound wave using an oscilloscope*** **3.28P understand how the pitch of a sound relates to the frequency of vibration of the source** **3.29P understand how the loudness of a sound relates to the amplitude of vibration of the source**  | Video and Powerpoint: 3.5 SoundTextbook pages:Page 123 – Sound wavesPage 124 – **Practical** – *Investigate the speed of sound using echoes.*Page 125 – ReflectionPage 125 – Refraction of soundPage 126 – Pitch and frequencyPage 126 – **Practical** – *Investigate the frequency of a sound wave using an oscilloscope*Page 127 – Audible RangePage 128 – LoudnessPage 129 – *Looking ahead – Sound waves in different materials* | Page 129Questions (1) to (5)Pages 130 – 131End of Unit Questions (1) to (6)Chapyter 13 Textbook Answers (PDF)Textbook End of Unit Answers (PDF)Chapter 13 - exam question - pdfChapter 13 - exam question mark scheme – pdfChapter 13 - Talking paper video  |

Videos – [www.igcsesciencecourses.com](http://www.igcsesciencecourses.com)

Textbook Ref: Edexcel International GCSE (9-1) Physics Student Book - Pearson (Arnold, Johnson, Woolley))