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: Waves  a) Units  d) 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 Sound  Textbook pages:  Page 123 – Sound waves  Page 124 – **Practical** – *Investigate the speed of sound using echoes.*  Page 125 – Reflection  Page 125 – Refraction of sound  Page 126 – Pitch and frequency  Page 126 – **Practical** – *Investigate the frequency of a sound wave using an oscilloscope*  Page 127 – Audible Range  Page 128 – Loudness  Page 129 – *Looking ahead – Sound waves in different materials* | Page 129  Questions (1) to (5)  Pages 130 – 131  End of Unit Questions (1) to (6)  Chapyter 13 Textbook Answers (PDF)  Textbook End of Unit Answers (PDF)  Chapter 13 - exam question - pdf  Chapter 13 - exam question mark scheme – pdf  Chapter 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))