Edexcel International GCSE Physics 4PH1 Learning Plan

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| **Unit: 4 Energy Resources and Energy Transfer** | **Chapter: 14. Energy Transfers** | **Hours: 4** |
| Content coverage | Learning outcomes | Resources | Assessment |
| Section 4: Energy resources and Energy transfersa) Unitsb) Energy transfers | **4.1** use the following units: kilogram (kg), joule (J), metre (m), metre/second (m/s), metre/second2 (m/s2), newton (N), second (s) and watt (W) **4.2** describe energy transfers involving energy stores: * energy stores: chemical, kinetic, gravitational, elastic, thermal, magnetic, electrostatic, nuclear
* energy transfers: mechanically, electrically, by heating, by radiation (light and sound)

**4.3** use the principle of conservation of energy **4.4** know and use the relationship between efficiency, useful energy output and total energy output: Efficiency = useful energy output x 100 Total energy output**4.5** describe a variety of everyday and scientific devices and situations, explaining the transfer of the input energy in terms of the above relationship, including their representation by Sankey diagrams  | Video and Powerpoint:1.8 Energy1.9 Energy resources Textbook pages:Page 133 – Stores of energyPage 134 – Energy transfersPage 135 – Conservation of energyPage 136 – Sankey diagramsPage 137 – Efficiency | Pages 137 – 138Questions (1) to (4) Chapter 14 Textbook Answers (PDF)Chapter 14 - exam question - pdfChapter 14 - exam question mark scheme – pdfChapter 14 - 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))