Edexcel International GCSE Physics 4PH1 Learning Plan

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| **Unit: 2 Electricity** | | **Chapter: 9. Electric Charge** | | **Hours: 4** |
| Content coverage | Learning outcomes | Resources | Assessment | |
| **Section 2: Electricity**  **d)** Electric charge | **2.22P** **identify common materials which are electrical conductors or insulators, including metals and plastics**  **2.23P *practical:* investigate how insulating materials can be charged by friction**  **2.24P explain that positive and negative electrostatic charges are produced on materials by the loss and gain of electrons**  **2.25P know that there are forces of attraction between unlike charges and forces of repulsion between like charges**  **2.26P explain electrostatic phenomena in terms of the movement of electrons**  **2.27P explain the potential dangers of** **electrostatic charges, e.g. when fuelling aircraft and tankers**  **2.28P explain some uses of electrostatic charges, e.g. in photocopiers and inkjet printers.** | Video and Powerpoint:  5.2 Electrical Quantities (1)  5.3 Electrical Quantities (1) - supplement  Textbook pages:  Page 85 – Charges within an atom  Page 85 – Charging materials by friction  Page 86 – Forces between charges  Page 86 – *Practical – investigate how insulators can become electrically charged by friction*  Page 87 – Forces between charged and uncharged objects  Page 89 – Uses of static electricity  Page 91 – Problems with static electricity | Page 92  Questions (1) to (5)  Unit Questions  Page 93 to 95  Questions (1) to (8)  Chapter 9 Textbook Answers (PDF)  End of Unit Answers to Questions (PDF)  Chapter 9 - exam question - pdf  Chapter 9 - exam question mark scheme – pdf  Chapter 9 - 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))