Edexcel iGCSE Physics 4PH0 Learning Plan

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| **Section G26: Particles** | | |
| Specification | Resources | Assessment |
| 7.15 describe the results of Geiger and Marsden’s experiments with gold foil and alpha particles  7.16 describe Rutherford’s nuclear model of the atom and how it accounts for the results of Geiger and Marsden’s experiment and understand the factors (charge and speed) which affect the deflection of alpha particles by a nucleus  7.17 understand that a nucleus of U-235 can be split (the process of fission) by collision with a neutron, and that this process releases energy in the form of kinetic energy of the fission products  7.18 understand that the fission of U-235 produces two daughter nuclei and a small number of neutrons  7.19 understand that a chain reaction can be set up if the neutrons produced by one fission strike other U-235 nuclei  7.20 understand the role played by the control rods and moderator when the fission process is used as an energy source to generate electricity. | Video: Section 4 – Atomic Physics – Lesson 1 – The Nuclear Atom – 11:44 to end.  Powerpoint: Section 5. Atomic Physics – Physics 22 – The Nuclear Atom. Slides 49 to end.  Textbook: Ch.26 – Particles  Page 226 – Dalton’s model  Page 226 – The plum pudding model  Page 227 – Evidence for the existence of the nucleus  Page 228 – Generating electricity using nuclear fuels  Page 231 – End of Chapter Checklist  Edexcel iGCSE Physics Student Checklist Section G26.doc  DVD Revision check list | Textbook  Page 231 – Questions (1) to (5)  Textbook Answers (PDF)  Pages 232-233; End of Section G Questions (1) to (7)  Textbook Answers to End of Section G Questions (PDF)  DVD Multiple choice test  Talking paper – Edexcel Physics Section G26 – Particles  Chapter G26 Exam Question – pdf  Chapter G26 Exam Question mark scheme - pdf |

Videos – www.igcsesciencecourses.com

Textbook Ref: Edexcel International GCSE Physics Student Book - Pearson

DVD Video Clips – see resource DVD in textbook.