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 – ParticlesPage 226 – Dalton’s modelPage 226 – The plum pudding modelPage 227 – Evidence for the existence of the nucleusPage 228 – Generating electricity using nuclear fuelsPage 231 – End of Chapter ChecklistEdexcel iGCSE Physics Student Checklist Section G26.docDVD Revision check list | TextbookPage 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 testTalking paper – Edexcel Physics Section G26 – ParticlesChapter G26 Exam Question – pdfChapter 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.