Edexcel iGCSE Physics Checklist

Section G26: Particles

|  |  |  |  |
| --- | --- | --- | --- |
| ***I can*** | ☺ | 😐 | ☹ |
| describe the results of Geiger and Marsden’s experiments with gold foil and alpha particles |  |  |  |
| 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 |  |  |  |
| 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 |  |  |  |
| understand that the fission of U-235 produces two daughter nuclei and a small number of neutrons |  |  |  |
| understand that a chain reaction can be set up if the neutrons produced by one fission strike other U-235 nuclei |  |  |  |
| understand the role played by the control rods and moderator when the fission process is used as an energy source to generate electricity. |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |