## Combined Physics – Foundation

| Topic | Content |
|---|---|
| CP1– Motion | Vectors v Scalars, Velocity/time graphs, using the acceleration equation |
| CP2 Motion and Forces | Newtons 2nd Law (F=ma) Mass v Weight (W=mg) |
| CP3 Conservation of Energy | Energy stores and transfers – using equations for GPE & KE<br>Renewable v Non Renewable energy sources |
| CP4 - Waves | Describing waves – labelling a wave diagram, Core practical (Ripple Tank), Calculating wave frequency |
| CP5 – Light and the EM spectrum | Parts of the EM spectrum and their uses |
| CP6 - Radioactivity | Inside Atoms, charges and masses of Protons, Electrons & Neutrons.<br>Radioactive decay and half lives |

## Combined Physics – Higher

## Triple content in bold!

| Topic | Content |
|---|---|
| CP1– Motion | Vectors v Scalars, velocity time graphs |
| CP2 Motion and Forces | Resultant forces, momentum equation. Newtons Second Law and core practical (Acceleration trolley) |
| CP3 Conservation of Energy | Energy stores and transfers – using equations for GPE & KE, **efficiency** |
| CP4 - Waves | Waves crossing boundaries – how |
| CP5 – Light and the EM spectrum | Order of EM spectrum, energy levels and examples |
| CP6 - Radioactivity | Different types of Radioactive decay, electrons and energy levels half lives, **isotopes, nuclear fission, nuclear reactors** |