

Year 13 A level Physics

We are following the AQA A level Physics syllabus

Topics

In Year 13, you will study the following topics:

- Further mechanics: Circular motion and Simple harmonic motion
- Thermal Physics: Thermal energy transfer, gas laws, ideal gas equation, gas pressure and kinetic theory
- Gravitational and electric fields: Gravitational fields and potential, orbits and gravity, electric fields and potential, work and comparing gravitational and electric fields
- Capacitors: What is capacitance, charging and discharging a capacitor
- Magnetic fields: Magnetic fields, charged particles in a magnetic field, electromagnetic induction, transformers and alternating current.
- Nuclear Physics: Rutherford Alpha particle scattering experiment, nuclear density and radius, radioactive emissions, exponential law of decay, nuclear fission and fusion and binding energy.
- Turning points in Physics: Milikans oil-drop experiment, wave particle duality, speed of light and special relativity.

In each of these topics you will carry out required practical work to develop your How Science Works skills which also contributes towards a separate practical skill qualification

Assessment

At the end of each unit you will complete an end of unit assessment based on passed examination papers.

In the year 13 mock examinations you will sit three examinations which covers the topics studied in years 12 and 13 at A level standard.

Our expectations of you

- ✓ bring all equipment to all lessons
- ✓ complete homework on time and to the best of your ability
- ✓ take responsibility for revising scientific language and concepts on a regular basis