PHYSICS

Subject Leader: Mrs P Colebrook
Examination Board: WJEC
Desirable GCSE's - preferably at least a B Grade in Science and Maths
Essential GCSE's - Double Award Science or Separate Science, Maths & English.

Course Outline

The **AS** course consists of 2 units:

AS Unit 1 - **Motion, Energy and Matter,** This unit covers the following areas of study:
Basic Physics, Kinematics, Dynamics, Energy, Solids under Stress, Using Radiation to investigate Stars, Particles, Nuclear Structure

AS Unit 2 – **Electricity and Light,** This unit covers the following areas of study:
Conduction of Electricity, Resistance, DC Circuits, the Nature of Waves, Wave Properties, Refraction of Light, Photons, Lasers

The **A2** course also consists of 3 further units:

A2 Unit 3 - Oscillations and Nuclei
A2 Unit 4 - Fields and Options
A2 Unit 5 – Practical Examination

Entry Requirements

It is advisable that students achieve a grade B or above in Physics GCSE (Higher) and above, as this ensures that a student possesses the required background knowledge needed at A level. This is a very challenging course and requires students to have a committed approach to study both in and out of lessons.

What will I study?

Students will study the use of theories, models and ideas to develop and modify scientific explanations. The course includes a mixture of classical as well as modern Physics, including the study of modern applications of Physics.

How will I be assessed?

AS Unit 1 – Written Examination of 1 hour 30 minutes in June of Year 12 (20% of qualification)
AS Unit 2 – Written Examination of 1 hour 30 minutes in June of Year 12 (20% of qualification)
A2 Unit 3 – Written Examination of 2 hours 15 minutes in June of Year 13 (25% of qualification)
A2 Unit 4 – Written Examination of 2 hours 15 minutes in June of Year 13 (25% of qualification)
A2 Unit 5 – Practical Examination (10% of qualification)

Career Opportunities and Progression

Physics is an important and highly regarded subject for students interested in careers in engineering, electronics, medicine, accounting and finance. The skills gained on the course are valued in many areas of industry and commerce.