AS/A2 PHYSICS

Entry requirements:

GCSE BB or above in Science Dual Award or B in Physics, plus at least grade C in GCSE Mathematics

Examination board:

OCR Specification A

Teachers:

Mrs C Conheeney*, Mr J Beadman, Mr D Dennis, Mr R Dimelow, Dr P Jukes

Timetable organisation

5 lessons per week:-

3 lessons with teacher 1 including practical session

2 lessons with teacher 2

A Maths for Physicists course runs for 1 lesson a week during Y12 for students not studying AS Maths.

Main Syllabus areas

AS course:- 3 modules comprising

Mechanics (3 sub modules)

Electrons, Waves and Photons (5 sub modules)

Practical Skills in Physics 1 – Internal Assessment

A2 Course:- 3 modules comprising

Newtonian World (3 sub modules)

Fields, Particles and Frontiers of Physics (5 sub modules)

Practical Skills in Physics 2 – Internal Assessment

Method of assessment

AS:
Mechanics 1 hr exam Jan 2009
Electrons Waves and Photons, 1 hr 45 min exam June 2009
Practical Skills 1: Internal assessment comprising tasks set by OCR.

Method of assessment (Cont..)

A2: Newtonian World 1 hr exam Jan 2010
Fields, Particles & Frontiers of Physics 1 hr 45 min exam June 2010
Practical Skills in Physics 2: Internal Assessment comprising tasks set by OCR.

Qualities required

Students should be numerate and have good organisational skills. They should have an interest in, enjoyment of and commitment to the subject.

Links with other subjects

Physics is a very versatile subject. It obviously goes well with Maths, the other Sciences and ICT but students also successfully combine physics with a language, music or humanities subject.

Career prospects

Physics is at the heart of everything; can you name any invention worth having which doesn't rely on Physics? The word 'physics' on your application form for a job or place at college or university immediately says important things about you. You are logical, you can deal with practical things, you can work with other people to solve problems, you can write clear explanations and you can understand when things are explained to you. You can communicate, are numerate and can analyse data. For an employer these things are essential.

Extension and enrichment opportunities

Visits are organised throughout the course to lectures, exhibitions, practical activities, etc. whenever possible/appropriate. We have very good links with local universities. During Y12 we will visit Bradford University to do some work on Car Safety. In Y13 Physics students may visit Thornbury Hospital to examine MRI and CT scanners. Students are also encouraged to participate in activities such as Headstart Engineering courses, Physics Olympiad exam, WISE activities, Engineering Education Scheme etc.