

## **SUBJECT: Physics**

QUALIFICATION: AS and A2 Physics

QUALIFICATION LEVEL: Level 3

QUALIFICATION TYPE: GCE AS/A2

AWARDING BODY: AQA

QUALIFICATION ACCREDITATION NUMBER (QAN): 5451/6451

### **DESCRIPTION**

Think about the speeds, acceleration and forces involved in fairground rides. Consider the optical fibres, chips and circuits needed for today's information systems and micro technology (not to mention nanotechnology).

The principles of Physics play a vital role in almost every aspect of modern living.

The two AS theory units provide a good foundation for the A level course. Unit 1 invites students to venture into the field of Particle Physics and provides a new interest and dimension to their knowledge of the subject. Unit 2 allows the progression of Mechanics, Materials and Waves already familiar from Key Stage 4.

At A2, the students develop their understanding of Fields and Mechanics and about the significant breakthroughs in Science history such as the discovery of the electron and measurement of the speed of light.

The two-year course now includes Practical Skill Assessments, which are a series of internally assessed practical's as well as an Investigative Skills Assignment in for AS and A2 level.

The course is well resourced and pupils will benefit from dedicated textbooks, online resources and student guides and are taught by experienced and supportive teachers.

### **WHAT WILL I LEARN?**

AS Physics

Unit 1 Quantum Phenomena and Electricity

Unit 2 Mechanics, Materials and Waves

Unit 3 Investigative and Practical Skills in AS Physics

A2 Physics

Unit 4 Fields and Further Mechanics

Unit 5 Turning Points in Physics

Unit 6 Investigative and Practical Skills in A2 Physics

### **WHAT ARE THE ENTRY REQUIREMENTS?**

B in GCSE Science and Additional Science

B in GCSE Mathematics

### **HOW WILL I BE ASSESSED?**

Unit 1: January examination(40% of total AS marks or 20% of total A level marks) – written examination 70 marks 1hr 15 minutes

Unit 2: June examination (40% of total AS marks or 20% of total A level marks) – written examination 70 marks 1hr 15 minutes

Unit 3: Practical Skills Assessment and Investigative Skills Assignment (50 marks – internally assessed)

Unit 4: Written examination -75 marks

Section A – 25 multiple choice questions, each worth one mark

Section B – written paper consisting of 50 marks

(1hr 45 minutes – 20% of the total A level marks)

Unit 5: Written examination 75 marks

Section A – Nuclear and Thermal Physics – 40 marks

Section B – Option Paper (currently Option B –Turning Points in Physic)  
35 marks

(1hr 45 minutes – 20% of the total A level marks)

Unit 6: Practical Skills Assessment and Investigative Skills Assignment (50 marks – internally assessed).

### **WHAT ARE THE COSTS?**

Students can choose to purchase a revision which currently retails at £7.99

### **FUTURE OPPORTUNITIES?**

Employees rate Physics qualifications highly so by studying physics, you will open a door to a surprisingly wide variety of careers. Medicine, Engineering, Sports

Science, Information Technology, Meteorology, Radiography, Archaeology, Communications- the list seems endless.

**FURTHER INFORMATION**

[sfitzgibbon@pensbyhigh.wirral.sch.uk](mailto:sfitzgibbon@pensbyhigh.wirral.sch.uk)

[pmetcalf@pensbysportscollege.sch.uk](mailto:pmetcalf@pensbysportscollege.sch.uk)

[pdemiddelaer@hilbre.wirral.sch.uk](mailto:pdemiddelaer@hilbre.wirral.sch.uk)