Studying A level physics at St.Wilfrid's RC College

Its out of this world!

Why Study physics?

- Physics is an amazing and varied subject where you get to answer the b questions of the universe. From studying the smallest particles and fundamental forces that make up the fabric of our very existence to modelling the structure of galactic superclusters that are so large as to d the scale of human comprehension, physics allows us to unravel why the universe is as we perceive it.

- At the cutting edge of science, physicists are using mathematical modelling to unravel the secrets of the universe and apply these to impr people's lives. Using general relativity to allow GPS signals to accurately pinpoint where you are on the planet, quantum mechanics to create th next generation of computers that can perform calculations at previousl unimaginable speeds and developing fusion power stations which will create in inexhaustible supply of green energy from seawater. By studyin A-level physics you too can one day contribute to the incredible advancements we are making.

- Physics is an excellent subject to study for anyone with a logical mathematical mind and a desire to tackle the mysteries of the universe.

Careers

- A level physics is a facilitating subject – one of the A-level qualifications that universities rate higher than others
- Studying physics can open up many career avenues including
  - Astronomy
  - Meteorology
  - Research scientist
  - Nuclear physicist
  - Engineering
  - Economics
  - Finance and banking
  - IT
  - Law

The A-Level course

- During your A level studies you will be studying the following topics:

- Forces and motion
- Waves
- Electricity
- Particle physics
- Quantum physics
- Radioactivity
- Electromagnetism
- Gravitational fields

- A level physics is a demanding and highly rewarding subject that will develop your ability visualise how the world works. There is a large focus on learning through experiments and will also develop your practical skills through the completion of endorsed practical tasks.

- At A level, physics gains a larger focus on mathematical manipulation and is an ideal sub for anyone who enjoys both mathematics and science.

The A level course

At the end of year 13 you will sit 3 examinations. Two examinations are based on the core content of the course and the third covers practical skills and an optional module

Assessments

Paper 1	Paper 2	Paper 3
What's assessed Sections 1–5 and 6.1 (Periodic motion)	**What's assessed** Sections 6.2 (Thermal Physics), 7 and 8 Assumed knowledge from sections 1 to 6.1	**What's assessed** Section A: Compulsory section: Practical skills and data analysis Section B: Students enter for **one** of sections 9, 10, 11, 12 or 13
Assessed • written exam: 2 hours • 85 marks • 34% of A-level	**Assessed** • written exam: 2 hours • 85 marks • 34% of A-level	**Assessed** • written exam: 2 hours • 80 marks • 32% of A-level
Questions 60 marks of short and long answer questions and 25 multiple choice questions on content.	**Questions** 60 marks of short and long answer questions and 25 multiple choice questions on content.	**Questions** 45 marks of short and long answer questions on practical experiments and data analysis. 35 marks of short and long answer questions on optional topic.

Practical endoresement

- Over the course of your studies you will undertak assessed required practicals
- These will improve your ability to undertake and analyse investigations in physics, and prepare y for further university studies
- They also help you to develop valuable researc and referencing skills that you will find useful for degree course
- After completing the practical competencies y will be signed off as having passed your practic endorsement, which will then be sent to universi

Entry requirements

- Separate science at GCSE: Grade 7 in physics and grade 7 in mathematics
- Combined science: Grade 77 in combined science and grade 7 in mathematics