

Physics

A level – AQA

Course Leader: Miss Donnelly

What's it all about?

Students will follow the AQA physics specification. The course provides a seamless transition to A-level from previous studies and develops students' interest and enthusiasm for physics. It is hoped that the course will encourage students to consider further studies of physics and other related careers. The specification provides a smooth pathway from GCSE and a route to university courses in physics and other subjects in which physics is a key component.

What are the entry requirements?

Combined Science trilogy grades 9-9 to 6-6 or GCSE Physics grades 9-6. Including GCSE Maths grade 9-5.

What will I learn on this course?

On this course, you will learn to understand nature from the smallest possible scale deep inside the atom to the largest conceivable distance, stretching across the entire Universe. You will learn about topics such as particle physics, quantum physics, mechanics, materials, electricity and waves. You will discover that physics is a very creative subject that calls for imagination, inventiveness and good practical and communication skills. Students will gain hands-on practical skills and data analysis skills and will acquire a deeper appreciation of practical work and its relevance beyond the laboratory. They will see how physics links to other sciences and how the subject underpins important technologies.

How will I be assessed?

Paper 1	Paper 2	Paper 3
<p>Topics:</p> <ol style="list-style-type: none">1. Measurements and their errors2. Particles and radiation3. Waves4. Mechanics and materials5. Electricity <p>2 hour written examination.</p> <p>85 marks</p> <ul style="list-style-type: none">- 60 marks are a mixture of long and short answer questions- 25 marks multiple choice questions <p>34% of A-Level.</p>	<p>Topics:</p> <ol style="list-style-type: none">6. Further mechanics and thermal physics7. Fields and their consequences8. Nuclear physics <p>2 hour written examination.</p> <p>85 marks</p> <ul style="list-style-type: none">- 60 marks are a mixture of long and short answer questions- 25 marks multiple choice questions <p>34% of A-Level.</p>	<p>All practical skills are assessed in this examination paper.</p> <p>Data analysis skills are assessed.</p> <p>Optional topic:</p> <ul style="list-style-type: none">- Astrophysics- Medical physics- Engineering physics- Turning points in physics- Electronics <p>2 hour written examination.</p> <p>80 marks</p> <ul style="list-style-type: none">- 45 marks on practical techniques and data analysis- 35 marks on optional topic <p>32% of A-Level</p>

What do your current students say?

“Physics is an interesting and challenging subject. You need good maths skills.”

“It’s tough, hard and complicated but when you answer a question correctly it feels so good.”

“Physics is taught in a friendly environment. You can always go and ask your teacher for help.”

“Physics is surprisingly very useful in the real world.”

“Physics was an interesting and challenging subject which was well worth doing as it was the reason that I got my university place.”

“Physics is so challenging, but it helps me use other skills from maths in a real-life example.”

“You have to work so hard and practice a lot but once you get it, it all becomes clear!”

“If you need help there are so many questions the teachers can give you, it gave me lots of confidence.”

“At first I thought I would never be able to pass, but with lots of homework, revision and help from my teachers I did it!”

“Physics teachers are very funny and helpful. The lessons are never boring and even if I don’t get something, they are always there to help me.”

Is there anything else I need to know?

You will be provided with a course textbook and maths for physics book as well as given the opportunity to purchase recommended revision guides.

Physics is a challenging A-level and students need to work consistently from the start of the course. It is recognised as a hard A-level but for this reason it is considered to be high currency by universities and employers.

Who can I contact for further information?

Subject leader for physics, hdonnelly@kingcharles1.worcs.sch.uk