

Physics

(AQA)

Course Leader: Mr Stickley

What's it all about?

A Level Physics is an exciting and challenging course that explores the fundamental principles governing the universe, from the smallest particles to the largest galaxies. It develops your understanding of how the physical world works through theory, practical investigations and mathematical problem-solving.

The course develops valuable transferable skills including analytical thinking, mathematical reasoning, problem-solving, practical investigation and data analysis. These skills are highly valued by universities and employers and provide an excellent foundation for careers in engineering, physics, medicine, architecture, computing, aerospace, finance and many other STEM-related professions.

What are the entry requirements?

A Level Physics is a rigorous course that requires strong mathematical ability, logical thinking and a genuine interest in understanding how the world works. Students should be prepared to apply mathematical skills to scientific concepts, interpret data and carry out practical investigations to a professional standard.

The entry requirement is a Grade 6 in GCSE Physics (or Grade 6-6 in Combined Science) and a Grade 6 in GCSE Mathematic, but we strongly recommend a grade 7+ in Maths.

What will I learn on this course?

1. Measurements and their errors
2. Particles and radiation
3. Waves
4. Mechanics and materials
5. Electricity
6. Further mechanics and thermal physics
7. Fields and their consequences
8. Nuclear physics

And 1 of the following optional modules:

1. Astrophysics
2. Medical physics
3. Engineering physics
4. Turning points in physics
5. Electronics

How will I be assessed?

Students sit all examinations at the end of the two-year course. Assessment consists of three written examination papers, including questions on practical skills, mathematical problem-solving and the application of physics in real-world contexts. Students also complete a Practical Endorsement, which is reported separately alongside the A Level grade.

What do your current students say?

"Physics has completely changed the way I think about the world. I enjoy applying maths to solve real scientific problems."

"The practical investigations have helped me build confidence in my scientific skills, and I really enjoy learning about topics like space and electricity."

Is there anything else I need to know?

A Level Physics is highly respected by universities and employers because of the analytical, mathematical and practical skills it develops. It complements subjects such as Mathematics, Further Mathematics, Chemistry and Computer Science and is an excellent choice for students considering careers in engineering, medicine, physical sciences or technology.

Who can I contact for further information?

Mr Stickley at mstickley@kingcharles1.worcs.sch.uk