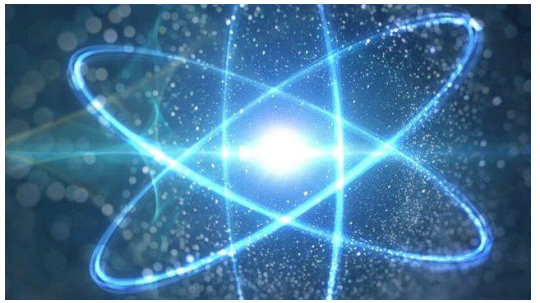
Welcome to KC1

AQA A Level Physics

Why study Physics?



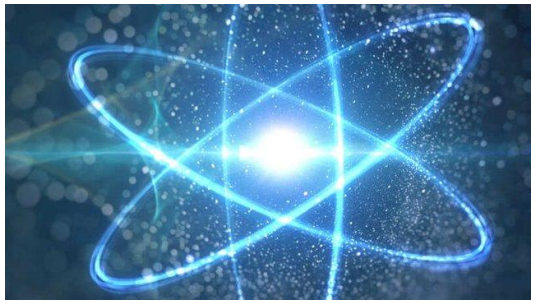
- A-level Physics gives you the opportunity explore and understand more about the world we live in from inside an atom to the whole universe.

- You will gain a more in-depth knowledge of topics studied at GCSE and examine new topics, such as particle physics.

- You will study the physical world through practical experiences linking theory to reality and expand your knowledge and develop excellent practical and thinking and reasoning skills.

THE FOUR STONES 4 ACHIEVING TOGETHER

Why study Physics?



- A level Physics is highly regarded by universities and employers as they recognise the excellent study skills needed to gain good grades in this subject.
- You will stand out from the crowd with an A-level in Physics.
- This course could be a stepping stone to nurturing a passion for Physics or lead to further study in science or engineering.
- The problem-solving skills you will develop are useful for many career paths such as computing, law, accounting and many more.

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Course overview

Year 1 Modules:

1 Measurements and their errors

2 Particles and radiation

3 Waves

4 Mechanics and materials

5 Electricity

Year 2 Modules:

6 Further mechanics and thermal physics

7 Fields and their consequences

8 Nuclear physics

Option module: Astrophysics, medical physics, engineering physics or turning points

Course overview

Assessment: This is a linear course so all the exams are at the end of year 2.

3 x written exams, 2 hours each

Paper 1 on topics 1-5 and 6.1 periodic motion (34% of A level)

Paper 2 on topics 6.2 thermal physics 7 and 8 (34% of A level)

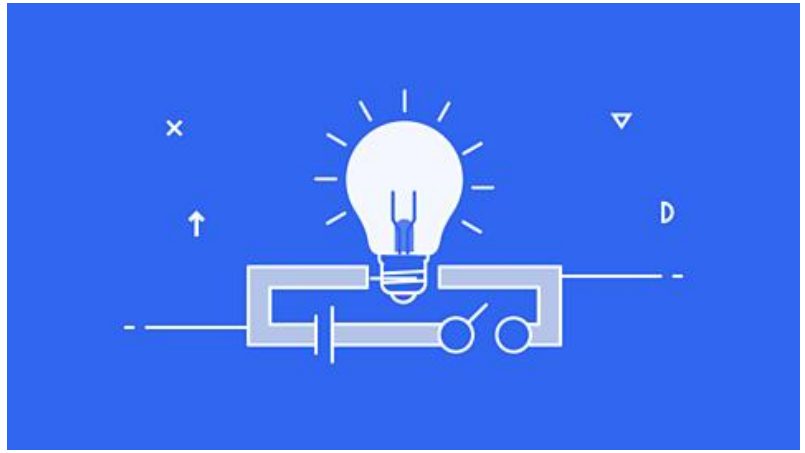
Paper 3 practical skills and data analysis and option topic (32% of A level)

Practical endorsement

- Practical endorsement is an important part of your A level studies.
- Over the 2 years you will complete 12 required practicals and plenty of other practical work to develop your practical skills.
- You will achieve the practical endorsement at the end of your studies. This is especially important if you plan to study a science related subject a higher level.

What skills you need

- A strong work ethic
- Enjoy practical work
- Good maths skills
- Enjoy problem solving
- Resilience
- Good communication skills
- Respond to feedback.



What are the entry requirements?

Physics GCSE	**grade 6 or higher**
Combined Science	**grade 66 or higher**
Mathematics	**grade 5 or higher**

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What our students say

‘Physics is essential if you want to study engineering in the future’

‘Physics is a good subject to do if you are interested in studying computer science at a higher level as the best courses require physics A level’

‘I did physics A level as it shows good problem-solving skills’

‘ I enjoy maths and want to be an accountant so physics was a good A level subject to choose to get on the course I wanted.’

‘To be honest, I chose physics as I enjoy maths.’

‘I chose physics as I have wanted to be an astrophysicist since I was a little girl.’

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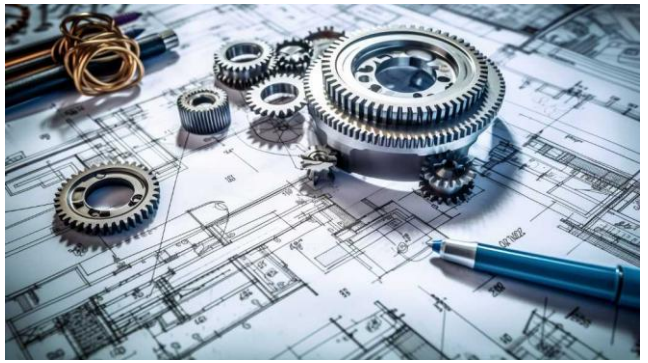
Where it can take you… university courses

- Physics, Astrophysics
- Other pure science courses
- Medicine
- Engineering
- Computer science
- Mathematics
- Accountancy
- Law

Where it can take you… careers



- Accountancy, Banking and Finance.
- Data Science & Statistics.
- Computer software engineering
- Game companies
- Engineering - Energy, Oil & Gas, Telecoms, Aeronautical, Process, mechanical, civil, materials etc.
- Research - Medicine, Product development, Space
- Transport
- Armed forces
- Secret service

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What we offer

- Great student experience
- A positive learning environment
- Opportunities to develop practical skills
- Fully furnished laboratories
- Highly qualified staff
- A caring, inclusive science faculty
- Access to online learning

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A level Physics FAQs

Are there any coursework or practical components?

There is no formal coursework, but students must complete 12 required practicals throughout the course. These are assessed internally and lead to a separate Practical Endorsement (Pass/Fail) shown on the final certificate.

What kind of maths skills are required?

Around 40% of marks in Physics involve mathematical skills, especially algebra, trigonometry, and graph analysis. A strong GCSE Maths background (at least grade 6) is highly recommended.

What textbooks or resources are recommended?

AQA A-Level Physics (OUP) – Jim Breithaup

CGP A-Level Physics Revision & Exam Practice

How can students prepare effectively for exams?

Regularly review notes after lessons, Practice with past papers and mark schemes, Keep up with required practicals and understand the underlying theory, Work on units, significant figures, and clear written explanations.

A level Physics FAQs

What are common challenges students face?

Applying mathematical reasoning to physical concepts, Remembering and using equations correctly, Handling multi-step problem-solving questions, Explaining practical results and uncertainties.

Is A-Level Physics useful if I don't want to study science at university?

Yes- it develops logical thinking, quantitative reasoning, and analytical skills valued in many non-scientific fields.

Are there practical or lab sessions?

Yes- students complete 12 required practicals that develop key experimental skills and support exam questions on data analysis.

How can parents support their child's learning?

Encourage consistent study habits and organisation, Help students manage deadlines and revision schedules, Ask about what they've learned — explaining concepts builds understanding, Ensure they have quiet, focused study time.

All of the King Charles I Open Evening resources can be found by visiting the school website

We look forward to welcoming you to our classrooms in September 2026