

Physics

Physics allows us to answer the 'Why?' questions in life from those on a large universal scale to the tiniest subatomic level, stretching the boundaries of our understanding.

As our students progress through school and their boundaries expand, their questions become more complex, and a wide range of models, practical activities and problem-solving exercises are used to help them search for the answers.



Key Stage 3

In Years 7 and 8, Physics is taught as part of the Integrated Science course. Through a plethora of topics such as Space, Energy, and Forces, pupils explore why things happen.

They are able to take the lead in practical work and feel confident to express themselves and take risks in their learning. In addition, Science Club allows keen Year 7 pupils to satisfy their curiosity in all things scientific, and in Years 8 and 9 pupils can join Rocket Club and are encouraged to soar!

"I never used to enjoy Physics, but I do now!" - Rebecca, Year 9



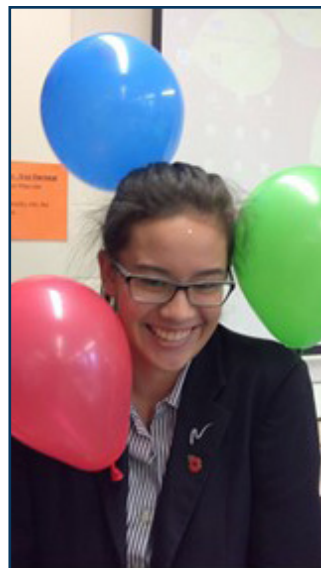
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Key Stage 4

Most of the GCSE (AQA) specification is learnt throughout Years 10 and 11. Lessons are liberally sprinkled with practical opportunities.

Students learn through a range of media about the concepts that govern the world around them and the models we use to predict and explain behaviour from the smallest of particles to the expanses of the universe. Students develop the ability to apply their knowledge to many situations, whether familiar or not, and become proficient at problem solving. In Years 10 and 11, students have the option of joining Café Sci and Engineering Society respectively, where they are encouraged to expand their horizons and see where the world of STEM can take them.



Key Stage 5

At A Level students gain the mathematical skills that enable models to become more complex and realistic as they delve deeper into the question of how our universe works.

The approach is very practical and students take advantage of our specialist equipment to investigate physical phenomena personally. Both year groups can take

advantage of Science Journal Club (discussing ground-breaking developments in the world of Science) and Engineering Society (involving design and make projects and hearing visiting speakers). We also participate in The Particle Physics Masterclass at Warwick University, visit The Rutherford Appleton

Laboratory (Oxford), and a highlight is our biennial trip to CERN (Geneva). A high proportion of our students go on to study Physics-based and Engineering subjects at Russell Group universities and GDST alumnae regularly visit school to inspire our students.



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