

FREQUENTLY ASKED QUESTIONS

PHYSICS

Rochdale
sixth form
college

1

WHAT EXAM BOARD DO YOU COVER FOR PHYSICS AT RSFC?

AQA A Level Physics. However, it does not matter if you study a different exam board at GCSE. There is no advantage or disadvantage to studying any of the exam boards for your GCSE qualification.

2

DO I NEED TO HAVE STUDIED TRIPLE SCIENCE AT GCSE TO STUDY PHYSICS AT A LEVEL AT RSFC?

No! Most of the extra content covered by the Triple Award Physics GCSE, is covered as part of the A Level course anyway. Again, you will be at no advantage or disadvantage by which GCSE specification you followed.

3

DO I NEED TO STUDY A LEVEL MATHS ALONG SIDE A LEVEL PHYSICS AT RSFC?

Yes. We require all A Level Physics students to study A Level Maths. This is because the Physics course contains a very large amount of Mathematical content including the use of algebra, trigonometry, graphical skills, logarithms, exponentials and much more. If you do not enjoy Maths, A Level Physics may not be the course for you.

4

WHAT TOPICS DO YOU STUDY IN A LEVEL PHYSICS AT RSFC?

We study a broad range of topics from the smallest known particles found in the world's most powerful particle accelerator, to the infinitely large range of our observable universe. Topics include: Mechanics, Materials, Waves, Electricity, Quantum, Particles, Oscillating Systems, Thermal Physics, Gravitational Fields, Electric Fields, Capacitance, Magnetic Fields, Electromagnetic Induction, Nuclear Physics and Astrophysics.

5

IS THERE ANY PRACTICAL WORK IN A LEVEL PHYSICS AT RSFC?

Yes! Physics is a practical Science and you will be completing a practical endorsement alongside your A Level qualification. This is assessed over twelve required practical experiments as outlined by the exam board. You will build up a bank of skills and keep evidence in the form of experimental reports in a lab book over the two year course.

7

ARE THERE ANY TRIPS OFFERED BY THE PHYSICS DEPARTMENT AT RSFC?

Yes! We offer a yearly trip to Geneva in Switzerland to visit the Large Hadron Collider site at CERN. The trip offers a variety of other opportunities such as a guided tour of the United Nations Headquarters, the Natural History Museum, a boat cruise on Lake Geneva and more. There is a trip to Alton Towers to attend a lecture on the Physics of rollercoasters including direct links from our specification such as circular motion, oscillations and eddy current braking systems. Student then get to test out the theory by experiencing the rides and attractions. We also offer a trip to the Engineering Your Future event, where students have the opportunity to explore the different disciplines and aspects of all types of engineering and speak to engineers directly to find out about a “day in the life of” their own specialism.

8

WHAT ARE THE ENRICHMENT OPPORTUNITIES FOR PHYSICS AT RSFC?

We offer the following enrichment opportunities at RSFC:

- Astrophysics Enrichment Course
- Entrance Exam prep support
- CREST Award
- EPQ Qualification
- Geneva trip to CERN
- Engineering Your Future event

9

WHAT CAREERS CAN STUDYING A LEVEL PHYSICS AT RSFC LEAD TO?

An A Level in Physics is a rare commodity and already stands you apart from many other students. The skills you gain as an A Level Physicist are vast but include critical thinking, problem solving, perseverance and resilience. Studying Physics at A level can lead to, or be useful in, a career in any of the following: Academic researcher, Engineer (civil, electronic, aerospace, mechanical, aviation, motorsport, nanotechnology, mechatronics, robotics, AI, etc.), Astronomer, Medical Physicist, Geophysicist, Meteorologist, Radiation Protection Practitioner, Teacher, Sound Engineer, Data analyst and many, many more.