

Curriculum Information

Physics – A Level



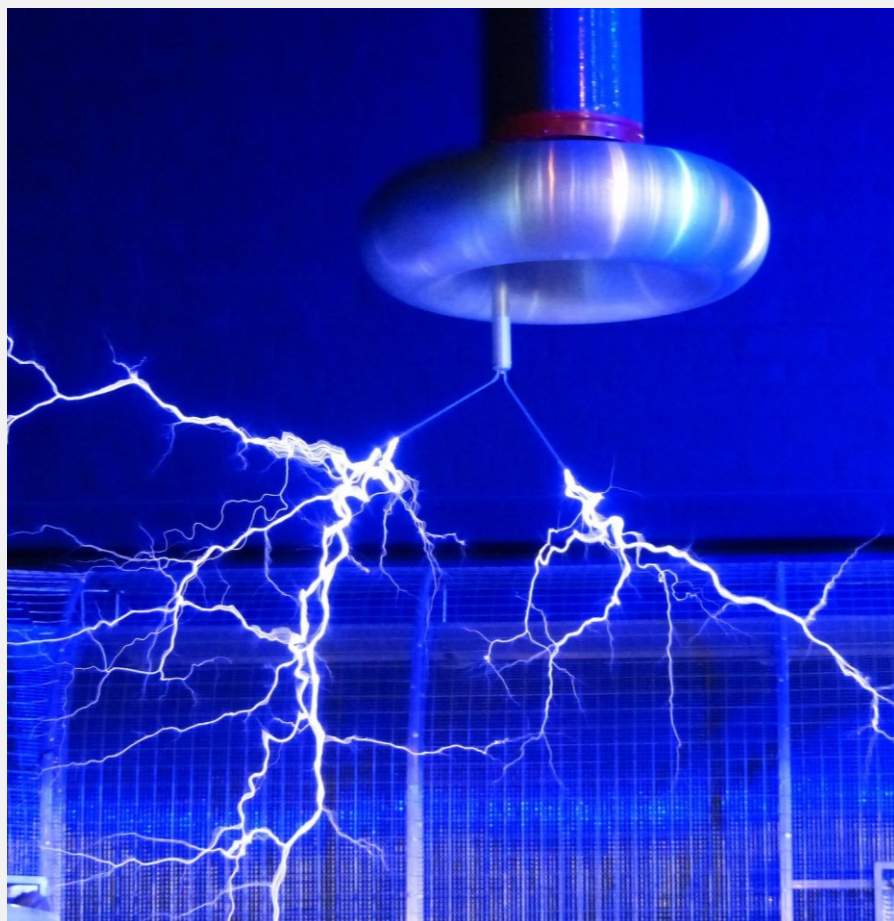
Subject rationale – Why study the subject? What benefits does it bring?

KS5 curriculum overview: Physics

At Bishop Challoner we follow the AQA specification. During year 12, students will study the core aspects of physics such as Mechanics, Waves, Electricity and an introduction to the new discoveries and developments made in the early part of the 20th century such as Quantum Mechanics and Particle Physics. The key concepts studied in year 12 lays down a solid foundation for the second year, and the option topics in the second year provides enough variety and choice.

The second year topics on Fields, Forces and Further Mechanics, as well as the whole sections on Nuclear and Thermal Physics, provide the students with an opportunity to appreciate the interdependencies between the different subject areas.

The topics in the specification lend themselves easily to practical work allowing the students to gain hands-on understanding of the topics while honing in on their experimental skills.



Assessment Overview

Exam board: AQA

Paper 1 (Sections 1 - 5 and 6.1 (Periodic Motion))
Written Exam: 2 Hours.

Paper 2 (Assumed knowledge from sections 1 - 6.1 and Sections 6.2 (Thermal Physics), 7 and 8)
Written Exam: 2 Hours.

Paper 3
Section A: Practical skills and data analysis.
Section B: Section 9 - Turning points in Physics.
Written Exam: 2 Hours.

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Revision Guidance

Link	Useful for...
AQA past papers	Practice questions and going over previous papers and mark schemes is one of the key and best revision techniques for Physics
Physics A Level Playlist	Written by Bob Eagle, this is an excellent set of video tutorials
s-cool.co.uk	Plenty of A and AS level Physics revision resources including not only notes but also practice questions and guides.
physicsandmathstutor.com	contains a huge amount of detailed revision notes for AQA as well topic based exam questions.
physicsnet.co.uk	A great resource with revision notes applicable to AS and A2 Level courses.
alevelphysiconline.com	Provides plenty of revision aides including revision checklists, videos and past papers.



Career opportunities

Apart from careers in pure and applied science, including engineering, there are other interesting careers on offer in the modern world listed at:-

www.physics.org

<http://brightrecruits.com/>

Other examples of careers using physics include:

- Astronomy and Space
- Electronics and Semiconductors
- Nanotechnology Energy and Renewables
- Nuclear and Fusion Technology
- Computer Modelling
- Optics and Photonics
- Defence and Aerospace
- Software Development Environmental and Earth science

Attachments/links/ further information

Specification can be downloaded from AQA website.

<https://www.aqa.org.uk/subjects/science/as-and-a-level/physics-7407-7408>