



# NOTTINGHAM GIRLS' HIGH SCHOOL

GDST  
GIRLS' DAY SCHOOL TRUST

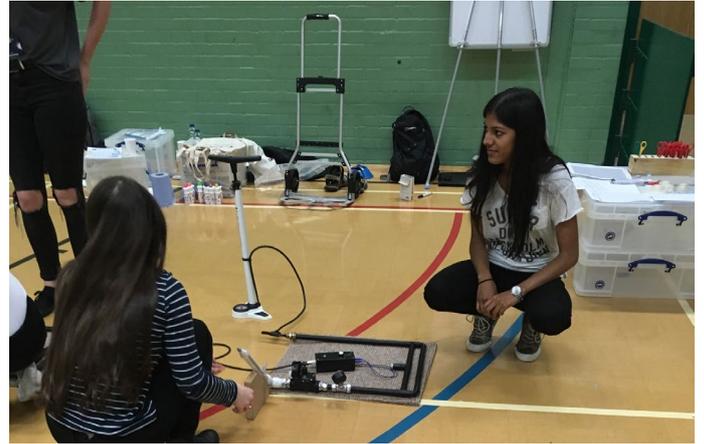
## SIXTH FORM CURRICULUM GUIDE

### PHYSICS

### OCR

#### ENTRY REQUIREMENTS

At least grade 7 in GCSE Physics or at least grade 7-7 in GCSE Combined Science plus at least grade 7 in GCSE Mathematics.



*"Equipped with his five senses, man explores the universe around him and calls the adventure Science."*

*Edwin Powell Hubble,  
The Nature of Science, 1954*

While a good sense of fun is not essential for Physics, we do our best to make the A level course as stimulating and awe-inspiring as possible.

If you are considering studying Physics at A Level, you might identify with some of the following statements:

- I like logical thinking and prefer understanding concepts to learning lots of facts or writing wordy answers.
- I want to understand the world around me: from the smallest particles to the vast dimensions of the universe.
- I enjoy finding out about the astounding world we live in and enjoy learning about mind-blowing aspects of the universe.

Both the GCSE Physics and Additional Science courses are very good foundations for the A Level course and you will be familiar with the basics of the many topics it covers.

#### YEAR 12

In Year 12 you learn about the latest understanding of the particles that make up the universe, quantum physics and electricity. You will also study the movement of bodies in the mechanics topic, the physical properties of materials and the amazing properties and uses of waves.

We take an optional trip to CERN in Geneva at the end of Year 12 or early into Year 13. This offers a great opportunity to see particle physicists and engineers at work in the World's largest experiment.

There is no coursework in the A Level Physics course.



## YEAR 13

In Year 13 we study the mechanics of circular and simple harmonic motion. We also cover gravitational, electric and magnetic fields alongside thermal and nuclear Physics.

Physics fosters the skills of logical thinking, working independently and expressing oneself clearly and concisely. Physicists carefully examine the world, formulate theories and then test them to find an accurate way of describing what has been observed. These skills are in much demand, valued by many careers. Medicine, finance and business, engineering and science all employ large numbers of physicists.

When applying for university, A Level physics is highly regarded as preparation for a huge range of subjects. For engineering, architecture and medical science courses, it is an important foundation and usually a requirement. A physics degree will allow you great flexibility in your career: the skills it develops can open doors from science to industry and business.

*“The trip to CERN really made particle physics come alive. It was great fun and really inspiring to see how passionate the scientists working there were.”*

*Click here to watch the course introductory video from Head of Physics, Mr Colin Aspley.*

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In order to join us in the Sixth Form, we require an average of grade 6 across eight GCSE subjects, including English and Mathematics. See individual subjects for any specific requirements for study at A Level.

For detailed course information on all of the A Level subjects please visit the AQA, Edexcel or OCR websites.

If you have any questions about any aspect of the admissions process, please call 0115 935 4444 or email [admissions@not.gdst.net](mailto:admissions@not.gdst.net)



Nottingham Girls' High School  
9 Arboretum Street, Nottingham NG1 4JB  
0115 941 7663 [enquiries@not.gdst.net](mailto:enquiries@not.gdst.net)  
[nottinghamgirlshigh.gdst.net](http://nottinghamgirlshigh.gdst.net)



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