



# Physics

## Physics Staff:

Ms M. Patel (Head of Physics)

Ms J. Bichard-Collins

Mr P. Manning

Mr A. Smythe

Mr P Trynka

## Our students say...

*"Physics is a really tough subject but my teacher makes it all so accessible"*

*"I've never worked so hard for a subject in my life but also have never enjoyed working this hard so much"*

*"The lessons are great and help me to access some tough concepts, the practicals are great too as they help me to understand the theory"*

- Current year 13 students

## Why should I choose physics?

If you have an interest in how the world around you works, how mobile phones use quantum physics, what the scientists at CERN are up to, what electricity is and how we can model the entire universe using equations then Physics is the subject for you. Physics is the Science that explains the world around us and gives access to the broadest range of Science, Mathematics, Computer Science and Engineering degrees available.

## Our results in 2019 (pre-covid)...

32% A\*/A

91% A\*-C

ALPS 2 – our performance exceeds top 25% of national benchmark

## Minimum entry requirements

- Separate (triple) science: Grades 6 in Physics and 6 in any other science or combined (double) science: Grade 6-6
- Grade 6 in Mathematics and grade 6 in English

## What's different about physics at Thomas Tallis?

The Thomas Tallis physics department is made up of a team of enthusiastic teachers who love the subject. We offer:

- A residential trip to CERN labs in Switzerland.
- Trips to UCL and Greenwich Royal Observatory to hear lectures about cutting-edge research.
- Guest lectures in school by professional scientists and experts.
- A Physics Society run by pupils which provides the opportunity to take part in extra-curricular projects.
- An opportunity to compete in the Oxford Physics Olympiad.
- Bespoke preparation for Oxbridge entrance exams.

In addition, we follow a rigorous curriculum that goes beyond the exam so pupils understand the subject at a deeper level, can independently think, and are prepared for university. Our students have been awarded places at universities such as Cambridge to study Engineering and Natural Sciences, as well as Warwick, Imperial and UCL to study STEM subjects.

## What will I learn?

At Thomas Tallis, we follow the *OCR Physics A* curriculum. All examinations are taken at the end of year 2 and there is a separate practical element which students need to pass. Pupils over the following topics.

- Development of practical skills in physics
- Foundations of physics
- Forces and motion
- Electrons, waves and photons
- Newtonian world and astrophysics
- Particles and medical physics

## How am I assessed?

- A Level Paper 1: Modules 1,2,3,5 (2.25 Hours)
  - 15 marks Multiple choice
  - 85 marks long response
- A Level Paper 2: Modules 1,2,4,6 (2.25 hr exam)
  - 15 marks Multiple choice
  - 85 marks long response
- A Level Paper 3: Modules 1-6 (1.5Hr Exam)
  - 70 Marks long response
- Separate practical element

