Why study Physics?

Physics is the ideal course for those who want to understand how the world works, from the smallest sub atomic particles to galaxies and black holes. Whether you want to understand how Formula One cars work and move, how waves affect oil platform installation, why the aurora borealis lights up the night sky or want to help us in our quest for what *actually* makes up most of the universe, Physics offers an unparalleled insight.

Physics will help you develop numerical and analytical skills and learn *how* to problem solve. This ease with numbers, computers and an ability to approach a challenging problem opens up more career paths than possibly any other degree: Research, Finance, Strategy Consulting, Oil and Gas, Aerospace, MOD, Meteorology, Medical Imaging, IT or Teaching.

What will you study in Physics?

We have chosen to follow the AQA specification. The reason for this is that we believe it is context-free and offers a good range of options. A context-free approach means we can tailor our approach to our students, some of whom may benefit from learning through applications of physics and others who may prefer the straight theory.
The options available are:

- Astrophysics
- Medical physics
- Turning points in physics
- Engineering physics (re-branded Applied physics)
- Electronics.

All students will study the full A level but be entered for the AS level exams at the end of the first year . This will give universities a genuine and useful indicator of progress rather than relying on GCSE results, which do not reflect differences between top students.

Why study Physics at Hackney New Sixth Form?

There are three reasons why you should study Physics at HNSF.

- Specialist teachers and technicians - There is a shortage of specialist teachers in STEM subjects in the whole country, and London is no different. At HNSF you will be taught subjects by teachers who actually studied them.

- New facilities and equipment - Our school was completed in September 2015. This means that all the science labs (and practical equipment) are brand new. With the focus on required practicals in the new specifications, we have invested tens of thousands of pounds over the last few years to ensure our labs are well stocked, with everything from data loggers to infra-red cameras.
- A focus on study skills - Universities have been very vocal over the last few years about how ill prepared they feel new students have been for degree-level study. At HNSF you will be taught study skills to help you prepare for university, both in lessons and the way you do homework but also in dedicated slots. We do more than just teach you the content, aware that the two years between GCSE and University is our chance to make sure that bright students are ready for further study.

What are the entry requirements for studying Physics at HNSF?

Entry requirements:
Grade 6+ in GCSE Physics or 6+/6+ in Core and Additional Science. All students of A level Physics must also study A level Mathematics. Therefore grade 7+ is required in GCSE Mathematics.

How will I be assessed?

All courses are now linear. This means you will be assessed by examinations at the end of the Year 13, as well as perform 12 required practicals for students to develop skills necessary for examination success.

AS/A level

Unit 1 **Periodic motion** **Inorganic chemistry** **Relevant practical skills**	Written examination: 2 hours 85 marks 34% of A level	A level: 105 marks of long and short answers
Unit 2 **Thermal Physics** **Relevant practical skills**	Written Examination 2 hours 85 marks 34% of A level	A level: 45 marks of long and short answers on practical experiments and data analysis 35 marks on long and short answer questions on a chosen topic

Unit 3 (A level only) **Section A (compulsory): Practical skills and data analysis** **Section B one from a choice of optional topics**	Written Examination: 2 hours 80 marks 32% of A level	45 marks of questions on practical techniques and data analysis 35 marks on short and long answer questions on a range of optional topics