**Hutton Grammar Sixth Form Prospectus information**

**Department: Science**

**Subject: Physics**

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| **What topics are covered in this subject?**  You will already have come across some of the concepts of physics at school or in your everyday life such as forces, energy, waves, radioactivity, electricity and magnetism. At A Level you will start to see how these ideas work together and begin to grasp the universal principles that apply to everything, from the smallest atoms to the largest galaxies. You will study concepts in much more depth than GCSE and you will realise that lots of the gadgets that we take for granted, such as games machines, laptops and mobile phones wouldn’t exist without physicists! |
| **How is this subject taught?**  At Hutton you will study physics in well-resourced laboratories supported by a team of specialist teachers. We follow the AQA Physics A Level specification, and our course will provide you with frequent opportunities to develop your experimental and problem-solving skills. You will carry out a wide range of experiments, including the AQA required practicals. Whilst it is not essential for you to study A Level Maths, you should expect your studies throughout the physics course to require you to apply your mathematical skills.  Each week you will be given assignments to complete during your independent study time, and your progress will be assessed in end-of-unit tests. Mock exams will help you to prepare for your external assessment at the end of the course. This comprises three written papers and a practical endorsement. |
| **What are the enrichment opportunities in this subject?**  We regularly invite outside speakers from local industry and higher education establishments to provide our students with an insight into where their studies can lead. In recent years, enrichment activities have included visiting local universities, learning about the physics of theme parks, participating in a scientific expedition and taking part in the ‘Isaac Physics’ programme. |
| **Where does this subject lead at 18+?**  Studying physics can lead to a range of careers from astrophysics, nuclear science, aeronautical engineering, geophysics, radiography to neuroscience, as well as software engineering. Students could also go on to work in architecture, environmental science or civil engineering. Physics is considered to be one of the most versatile and employable subjects, and the skills and knowledge developed on this A Level course are relevant in many areas of study and work. |