

# Spalding Grammar School Sixth Form

## *Subject Information*

## Physics

*Grade 6 in GCSE Physics or 7,7 in GCSE Combined Science and Grade 6 in GCSE Mathematics.*

### **Entry Requirement:**

**Awarding body:** AQA

**About the subject:** Physics is crucial to understanding the world around us, the world inside us, and the world beyond us. Physics encompasses the study of the universe from the largest galaxies to the smallest subatomic particles and is the most basic and fundamental yet far-reaching science. It challenges our imaginations with concepts from relativity to string theory and provides the foundations for most of the major technological advances of mankind, from computers to lasers to putting the first person on Mars...sometime soon.

### **A Level Physics offers:**

- A stepping stone to a wide variety of rewarding careers: from physicist or engineer to doctor or banker.
- The opportunity to learn about how the universe works and how we are developing our models to simulate and predict future discoveries.
- Broad training in skills that all employers value – by developing strong problem-solving, analytical, mathematical and ICT skills. Even if you do not end up working in a physics-related industry, these skills are still highly regarded.

### **Assessment:**

All examinations take place at the end of Year 13. The third paper requires students to demonstrate understanding and knowledge of practical skills and answer questions on a chosen module. The optional modules offer the possibility of studying Astrophysics, Medical physics, Engineering physics, Turning Points in Physics or Electronics. All students will undertake the Engineering optional module but also have the choice of a second optional module should they decide that they do not want to be entered for the Engineering option in the final exam. There is also the internally assessed Practical Endorsement skills certificate, which is based on 12 of the practicals undertaken throughout the course and allows them to demonstrate their practical skills developed throughout the course.

<b><u>Paper 1: 34% of A level</u></b>	<b><u>Paper 2: 34% of A Level</u></b>	<b><u>Paper 3: 32% of A Level</u></b>
<ul style="list-style-type: none"><li>• Particles and radiation.</li><li>• Waves.</li><li>• Mechanics and materials.</li><li>• Electricity.</li></ul>	<ul style="list-style-type: none"><li>• Thermal physics.</li><li>• Fields and their consequences.</li><li>• Nuclear physics.</li></ul>	<ul style="list-style-type: none"><li>• Measurements and their errors across a range of 12 practical activities.</li><li>• The options module.</li></ul>

