



**STAFFORD**

14-19 Partnership

## Course title: Physics A Level AQA Block D

<b>Academic year:</b>	2022
<b>Course Venues:</b>	Sir Graham Balfour High School
<b>Course Type:</b>	A level
<b>Course Code:</b>	12DGBPH1
<b>Duration:</b>	2 years

### Course Content:

The AQA A level Physics syllabus is a 2 year course comprising the following core component and is assessed through 3 papers at the end of the course.

1. Measurement and errors
2. Particles and Radiation
3. Waves
4. Mechanics and Materials
5. Electricity
6. Further Mechanics and Thermal Physics
7. Fields and their consequences
8. Nuclear Physics
9. Astrophysics

Paper 1	Paper 2	Paper 3
<p><b>What's assessed</b></p> <p>Sections 1–5 and 6.1 (Periodic motion)</p>	<p><b>What's assessed</b></p> <p>Sections 6.2 (Thermal Physics), 7 and 8</p> <p>Assumed knowledge from sections 1 to 6.1</p>	<p><b>What's assessed</b></p> <p>Section A: Compulsory section: Practical skills and data analysis</p> <p>Section B: Students enter for <b>one</b> of sections 9, 10, 11, 12 or 13</p>
<p><b>Assessed</b></p> <ul style="list-style-type: none"> <li>• written exam: 2 hours</li> <li>• 85 marks</li> <li>• 34% of A-level</li> </ul>	<p><b>Assessed</b></p> <ul style="list-style-type: none"> <li>• written exam: 2 hours</li> <li>• 85 marks</li> <li>• 34% of A-level</li> </ul>	<p><b>Assessed</b></p> <ul style="list-style-type: none"> <li>• written exam: 2 hours</li> <li>• 80 marks</li> <li>• 32% of A-level</li> </ul>
<p><b>Questions</b></p> <p>60 marks of short and long answer questions and 25 multiple choice questions on content.</p>	<p><b>Questions</b></p> <p>60 marks of short and long answer questions and 25 multiple choice questions on content.</p>	<p><b>Questions</b></p> <p>45 marks of short and long answer questions on practical experiments and data analysis.</p> <p>35 marks of short and long answer questions on optional topic.</p>



### **Practicals:**

Through investigations you will gain the necessary skills vital for further study or employment.

Throughout the course you will carry out practical activities including:

- Investigate the factors that determine the frequency of stationary wave patterns of a stretched string.
- Investigation of the variation of resistance of a thermistor with temperature.
- Investigation of the factors that determine the resonant frequency of a driven system.
- Investigation of interference effects to include the Young's slit experiment and interference by a diffraction grating
- Determination of  $g$  by free-fall method.
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The practicals are written up in a practical book and the student must keep careful records of the skill areas covered as these are externally moderated. Although there is no coursework the practical skills will form part of the written exam and there will be a pass or fail indicated on the final exam certificate. It is imperative that you pass.

### **Additional Information:**

Team work during practicals, Researching and Reporting; Safe working and obtaining reliable, precise and accurate data. Independent work, working to deadlines, resilience, memory development, problem solving, confidence, imagination, organisational skills.

### **Entry requirements:**

The standard entry criteria to study in the sixth form is a 9-4 in at least seven different subjects, including English and mathematics, which would usually be at grade 4 or above.

To study Physics at A-level you will need to achieve a 6 or above in separate, applied or core science, you should also be studying Maths at A-level to compliment this element of the course.

### **Financial Information:**

The course is extremely well resourced on the 365 where students will find the material to inspire, consolidate learning and enhance understanding. Independent work is vital for A level Physics.

### **Future opportunities:**

Possible degree options-

- Physics and Physics related
- Science degrees
- Engineering degrees
- Law

Physics is a highly regarded A level and will be accepted by almost any course.



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Possible career options-

Electronics engineer; Manufacturing engineer; Sound engineer; Astrophysicist; Accelerator Engineer; Light engineer; Radiographer; Clinical Scientist; Weather forecaster; Experimental physicist; Theoretical physicist; Air Traffic Controller; Lawyer; Pilot; Solicitor; Mechanical Engineer; Games Designer; Structural Engineer; Telecommunications; Engineer; Teacher; Lecturer.

**Further information:**

Find out more at: [aqa.org.uk/science](http://aqa.org.uk/science)

