



Sir John Lawes School
Education for a changing world

Advanced Level Sciences

Physics





Entry Requirements

Are listed in the 6th form prospectus

If you are studying triple science:

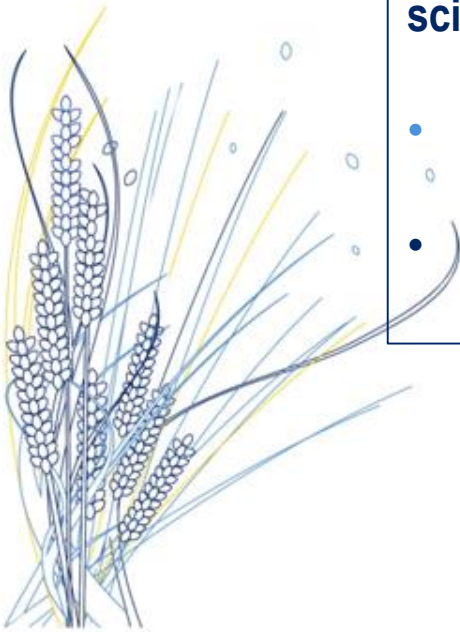
- **GCSE Triple Science Physics at grade 6 and above**
- **APS of 4.5 or above**

If you are studying combined science:

- **GCSE Combined Science at grade 7-6 and above**

AND

- **Grade 6 or above in GCSE Mathematics**
- **APS of 4.5 or above**





Expectations

A successful student will:

- Have a real interest in the subject and an enquiring mind about the world in which we live
- Will be hard working, persevering and not afraid to ask for help
- Will work steadily, keeping to deadlines





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Physics – Exam Board



- The A Level Physics exam board at SJL is **Edexcel**
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Physics – Course Content

- Up to date physics including ideas of quantum mechanics as well as more classical physics, such as mechanics and thermodynamics.
- Using computer modelling and ICT generally to analyse data and illustrate situations that can't be achieved in the lab.
- Practical work is embedded in the course.





Physics - Topics

Year 1:

- Mechanics
- Materials
- Electricity
- Waves and Particle Nature of Light





Physics - Topics

Year 2:

- Further Mechanics
- Thermodynamics
- Space
- Nuclear Radiation
- Gravitational Fields
- Oscillations
- Nuclear and Particle Physics
- Electric and Magnetic Fields





Course Materials

- **Edexcel AS/ A Level Physics 1 and Edexcel A Level Physics 2** – Two course-specific textbooks, covering the topics in each year of study respectively.
- **Edexcel A Level Physics Revision Guide**– Course-specific revision guide for the full two year course (can be purchased at a half RRP from the school shop).
- **Interactive Powerpoint presentations** – used routinely by teachers.
- **Past Paper Questions** – these form a routine part of lessons and homework for A Level Physics students.





A Level Assessment

All external assessment is at the end of Year 13:

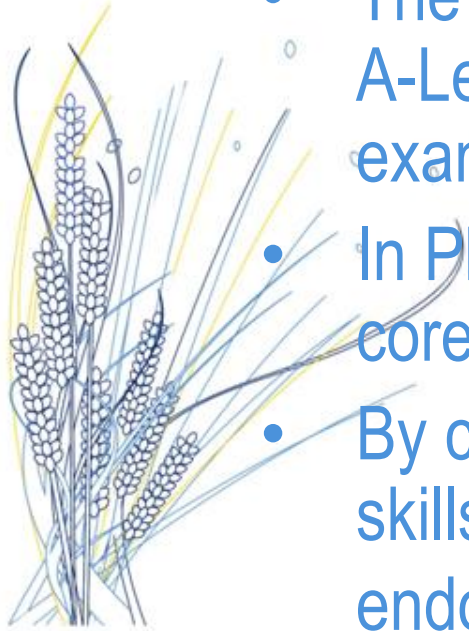
- Advanced Physics I (1hr 45 min)- 30%
- Advanced Physics II (1hr 45 min)- 30%
- General and Practical Principles in Physics (2hr 30min) 40%





Practical Endorsement

- Pupils will be required to produce evidence of their practical skills throughout the course.
- The mark awarded (Pass/Fail) is independent to their A-Level grade and will be reported separately on their exam certificate.
- In Physics, this separate qualification comprises 16 core practicals.
- By completing these practicals students will acquire skills to enable them to pass the practical endorsement and succeed in the final Physics exam.





Support

Pupils will find parts of the Physics course challenging, however, we are there to support throughout the course:

- Summer Preparation Pack to ensure students are able to 'hit the ground running' in September.
- Tailored feedback and catch up sessions to focus on pupils' individual needs.
- Wide range of additional resources that can be used to support or extend physical understanding (textbooks, online CD Rom, revision guides etc.).





Subject Choice

Physics is required for Further study in:

- Physical Science-based courses.
- Most Engineering courses.
- Most computer-based courses (especially programming and gaming).





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Subject Choice

- Maths is strongly advisable to support all sciences at Advanced Level.
- It *can* be an advantage to study two science subjects at Advanced Level.





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More information.....

School Website

www.sjl.herts.sch.uk

Exam Board Website

<http://qualifications.pearson.com>

