

SUBJECT: PHYSICS IB HIGHER

**HEAD OF DEPARTMENT:
MRS K ARDLEY
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FIRST ASSESSMENT 2016

SYNOPSIS OF CONTENT

The course comprises a central core of study for HL and SL which covers the following topics:

1. Measurements and uncertainties
2. Mechanics
3. Thermal physics
4. Waves
5. Electricity and magnetism
6. Circular motion and gravitation
7. Atomic, nuclear and particle physics
8. Energy production

Higher level students cover the additional units:

9. Wave phenomena
10. Fields
11. Electromagnetic induction
12. Quantum and nuclear physics

Students also study one extension module.

SKILLS THAT WILL BE DEVELOPED

An interest in, and enthusiasm for, Physics.
Appreciation of how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society.
An understanding of the nature of science.
Essential knowledge and understanding of different areas of Physics and how they relate to each other.
Practical investigation skills and personal engagement with a project of choice.

SOME USEFUL WEBSITES

<http://www.saburchill.com/physics/physics.html>

(The Open Door Website)

<http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html>

(Hyperphysics website)

ASSESSMENT

Paper 1 – 1 hour – 40 multiple choice questions on core and AHL topics. 20%

Paper 2 – 2¼ hours – A data based question, several short answer questions and 2 extended response questions. – 36%

Paper 3 - 1¼ hours - Section A two or three short answer questions based on experimental skills and techniques and analysis and evaluation of unseen data. These questions are linked to the core and AHL material

Section B – several short answer and extended response questions from the extension module– 24%

Internal assessment of an individual investigation which will involve practical work.– 20%

SPECIFIC MATRICULATION REQUIREMENTS

A grade B is required in Core and Additional Science – including a grade B in the Physics component, or in Physics GCSE. A grade B is also required in GCSE Mathematics.

Students should not attempt the IB HL Physics course unless they are studying Standard or Higher Level Mathematics as part of their diploma.

OTHER INFORMATION

E.g. Field Trips/expenses/books

Students may wish to purchase their own copy of the new textbook Physics for the IB Diploma (sixth edition), ISBN: 9781107628199