



Subject: **Physics**
Year/Course: **IB Standard**

Knowledge and Understanding

Mechanics, Thermal Physics, Oscillations and waves, Electric currents, Fields and forces, Atomic and nuclear physics, Energy, power and climate change, Motion in Fields, Wave phenomena, Electromagnetic induction, Quantum and nuclear physics, Digital technology, Option E Astrophysics, Option F Communications.

Subject Specific Skills developed

Students develop subject specific skills in the following areas;

- a) Theoretical understanding: Recall of scientific information, understanding, application of knowledge, analysis, synthesis and evaluative techniques.
- b) Practical skills; Designing experimental procedures, collecting, processing and presenting practical data, using scientific theory to offer relevant conclusions and evaluating the strengths and limitations of methods and techniques. In addition, students ability to manipulate apparatus accurately and safely is also assessed.

Transdisciplinary and Generic Skills developed

Students also develop the following transdisciplinary skills in Science.

- a) Research skills.
- b) ICT presentation skills.
- c) Extended writing skills.
- d) Attitude to learning. (This includes a number of skills from the IB learner profile including, organization, self reflection, teamwork, motivation, being inquisitive.)

Assessment

All assessments in Science are formative and involve student reflection, self evaluation and target setting.

- a) Theoretical understanding (written tests)
- b) Practical assessments.
- c) Research projects.
- d) ICT presentations.
- e) Extended writing assessments.
- f) Attitude to learning.

Challenge for All

All activities are differentiated to support, challenge and extend students of all abilities throughout this Science course.

Subject: Physics
Year/Course: IB Higher

Knowledge and Understanding

Mechanics, Thermal Physics, Oscillations and waves, Electric currents, Fields and forces, Atomic and nuclear physics, Energy, power and climate change, Motion in Fields, Wave phenomena, Electromagnetic induction, Quantum and nuclear physics, Digital technology, Option E Astrophysics, Option F Communications.

Subject Specific Skills developed

Students develop subject specific skills in the following areas;

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