# Separate Sciences
# Physics Curriculum Grid

**Examination Board**: Edexcel
**Further information:**
https://qualifications.pearson.com/content/dam/pdf/GCSE/Science/2016/Specification/GCSE_Physics_Spec.pdf
**Additional Support**: https://www.senecalearning.com/
https://www.bbc.com/bitesize/examspecs/zqpshv4

## Physics GCSE

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| **Topic 1 –** Forces and motion<br>**Topic 2 –** Conservation of energy<br>**Topic 3 –** Waves and the electromagnetic spectrum<br>**Topic 4 –** Radioactivity<br>**Topic 5** - Astronomy | **Topic 6 –** Electricity and circuits; Static electricity<br>**Topic 7 –** Magnetism, motor effect and electromagnetic induction<br>**Topic 8 -** Matter<br>(Topics 5 and Static electricity is only studied in the GCSE Physics Course) |

## Written Assessment

Students will sit 2 externally examined papers at the end of Year 11.
All papers are out of 100 marks and are 1 hour and 45 minutes in length.
Each paper contributes 50% of the Physics GCSE
Paper 1: Physics 1 – Topics 1, 2, 3, 4, and 5
Paper 2: Physics 2 – Topics 1, 6 - 8
Each paper consists of a mixture of different question styles, including multiple-choice questions, short answer questions, calculations and extended open-response questions.

## Core Practicals

Students must carry out all eight of the mandatory core practicals listed below.
1. Investigate the relationship between force, mass and acceleration by varying the masses added to trolleys
3. Investigate the suitability of equipment to measure the speed, frequency, and wavelength of a wave in a solid and a fluid
3. Investigate refraction in rectangular glass blocks in terms of the interaction of electromagnetic waves with matter
3P Investigate how the nature of a surface affects the amount of thermal energy radiated or absorbed.
6a) Construct electrical circuits to: a) investigate the relationship between potential difference, current and resistance for a resistor and a filament lamp
b) test series and parallel circuits using resistors and filament lamps
8. Investigate the densities of solid and liquids
8. Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature-time graph for melting ice
8. Investigate the extension and work done when applying forces to a spring.
Students will need to use their knowledge and understanding of these practical techniques and procedures in the written assessments.

## Year 10

**Autumn Term:** SP1 Forces and motion; SP2 Conservation of energy
**Spring Term:** SP3 Waves and the Electromagnetic Spectrum
**Summer Term:** SP4 Radioactivity

## Year 11

**Autumn Term:** SP5 Astronomy; SP6 Electricity and circuits; SP7 Static electricity
**Spring Term:** SP8 Magnetism, motor effect and electromagnetic induction; SP9 Matter
**Summer Term:** Revision