



Separate Physics Key Stage 4 Overview

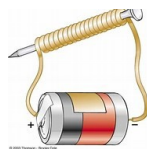
What is my Learning Journey for Year 10 and 11?

Content – Big bang theory, Red shift, Lifecycle of a star

P8 Space

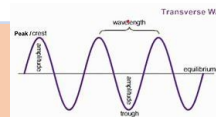
Content – Permanent and induced magnets, magnetic field, Electromagnets

P7 Magnets



Content – Labeling a wave, calculating wave speed, refraction, electromagnetic waves uses and dangers

P6 Waves



Exams:

-6 x 75 minute papers – 2 for biology, 2 for chemistry, 2 for physics
There is no coursework element.

Assessments:

-End of unit tests
--6 mark question practice for each unit

#realworldready

- Appreciate how our Earth is part of a wider system and the study into this.
- Understanding how and why objects act in the way that they do
- Understanding the theories that Scientists have developed over time and how/why these change
- Looking at the use of electricity in everyday lives and how we can develop our usage to be more sustainable.
- Understand the importance of science to a wide variety of careers.

Useful websites and support

- GCSE bitesize
- GCSEpod
- Oak Academy
- Seneca
- Educake
- Savemyexams
- Physics and maths tutor

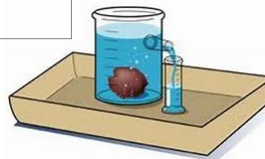
Key Skills:

- Recall and retention of scientific facts
- Analysing and interpreting data
- Evaluating information

Home Learning

- Weekly interleaving quizzes and homework
- Other tasks may include:
 - 6 mark question practice for each unit
 - Past paper practice
 - Flipped learning tasks

Content – Density, States of matter, Changes of state, Gas particles



P3 Particle Model

Content – Atomic model, Discovery of the atomic model, Isotopes, Ions, Radioactive decay, Uses and dangers of radiation



P4 Atomic Structure

Content – Speed, Acceleration, Distance-Time graphs, Velocity-Time graphs, Contact and non-contact forces, Gravity, Hooke's Law, Newton's laws, Scalar and Vector

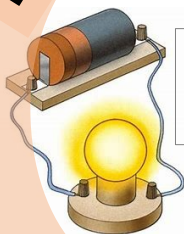
P5 Forces



YEAR

11

Content – Current, Voltage, Resistance, Power, National grid



P2 Electricity

Content – Energy stores, Energy calculations, Work, Power, Renewable and Non-Renewable



P1 Energy

YEAR

10

Scan this QR code to take you to the specification we study.



Recommended reading for KS4 Science



Title	Author	Year	Science Topic
The Senses	Matteo Farinella	10	Cells, Working Scientifically, Skeleton, Light and sound,
Atomic Women	Roseanne Montillo	10	Working Scientifically, Atomic Structure, Energy
Exploring the Elements	Isabel thomas	10	Working Scientifically, Elements, Chemistry, Atomic Structure
What If?	Randall Munroe	11	Working scientifically, Cells and Organisation, Health and drugs, Ecosystems, Genetics and Evolution, Particles, Atoms, Elements and compounds, The Periodic Table, Materials, Earth and the atmosphere, Energy, Motion and Forces, Waves, Electricity, Space Physics, Atomic Structure.
Lab Girl	Hope Jahren	11	Plants, Botany, Working Scientifically, Photosynthesis, Ecology, Living things and their habitats
The Mysteries of the Universe	Will Gater	10 seps	Space, Physics, Astronomy,
Question Everything - 132 Science questions	Mick O'Hare	10	All Biology, Chemistry and Physics
Does anything eat wasps and 101 other questions	Mick O'Hare	10	All Biology, Chemistry and Physics
The Radium Girls	Kate Moore	10	Radiation