



## KS4 Physics – Year 11

	Key content (knowledge)	Key skills	Assessments	Challenge and enrichment
Autumn half term 1	Nature and properties of waves Reflection and refraction Sound waves Ultrasound Seismic waves Electromagnetic spectrum	Interpreting diagrams of waves. Required Practical: investigating waves in solids and liquids	End of topic test on waves	Find out about seismometers and seismographs: <a href="http://www.bgs.ac.uk">How are earthquakes detected? - British Geological Survey (bgs.ac.uk)</a>
Autumn half term 2	Uses of electromagnetic spectrum in communications and medicine Reflection and refraction of light Light and colour Using lenses	Required practical: Investigating the refraction of light. Drawing ray diagrams Comparing uses of parts of the electromagnetic spectrum	Mock exams	Explore the job of a radiographer: <a href="http://www.healthcareers.nhs.uk">Information on being a diagnostic radiographer - Degrees and Courses - NHS Careers (healthcareers.nhs.uk)</a> Build your own solar light bulb: <a href="http://www.instructables.com">How to Build a SOLAR BOTTLE BULB : 12 Steps (with Pictures) - Instructables</a>

Spring half term 1	Magnetic fields Current and magnetic fields Electromagnetic devices Motor (ac and dc) Generators Transformers	Applying principles to practical applications Using and rearranging equations.	Test on electromagnetism	Explore the National Grid in more detail: <a href="#">Welcome to National Grid Group   National Grid Group</a> Find out what steps are being taken to make energy production greener.
Spring half term 2	Formation of the Solar System Life Cycle of a star Orbits and forces Expanding Universe Beginning and Future of the Universe	Research skills Understanding how evidence leads to changes in theories	Mocks  Space test	Explore the Nasa website: <a href="#">NASA</a> Or the European Space agency website: <a href="#">European Space Agency (esa.int)</a>
Summer half term 1	Revision for GCSEs			
Summer half term 2	GCSE examinations			