

Physics KS5 Curriculum Overview	Links to KS4		Students will all have studied either combined science or separate sciences at GCSE. The A level Physics course builds and expands upon this foundation of knowledge.					
	Intent	Statement of Intent	Develop essential knowledge and understanding of different areas of the subject and how they relate to each other. Develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods. Develop competence and confidence in a variety of practical, mathematical and problem solving skills. Develop their interest in and enthusiasm for the subject, including developing an interest in further study and careers associated with the subject. Understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society (as exemplified in ‘How Science Works’ (HSW)).					
		Timeline	Term 1 - 7 Weeks	Term 2 - 7 Weeks	Term 3 - 6 Weeks	Term 4 - 6 Weeks	Term 5 - 6 Weeks	Term 6 - 7 Weeks
	Implementation (Year 12)	Year 12 Overview	Module 1- Development of practical skills in physics. How to plan, implement, analyse science and evaluate practical work in physics. Module 2 - Foundations of physics. Physical quantities and units, making measurements and analysing data, nature of quantities. Module 3 - Forces and motion. Motion, forces in action, work, energy & power, materials, Newton’s laws of motion and momentum. Module 4 - Electrons, waves and photons. Charge and current, energy, power & resistance, electrical circuits, waves, quantum physics.					
		SOW	End of Unit Assessments		Module Booklets		Practical Assessments	
		Assessment Type & Unit Focus	Each module will have an end of module test. This will be a set of exam questions covering the content in that unit. They could also include questions that require knowledge from prior content.		Each module has an associated booklet to be completed in parallel to the teaching. It covers key words and definitions, a PLC and exam question practice.		Throughout the two year course students will complete a minimum of 12 assessed practicals to allow them to demonstrate consistent aptitude with a number of key skills. This will lead to a separate practical endorsement qualification.	
	Implementation (Year 13)	Year 13 Overview	Module 1 - Development of practical skills in physics. How to plan, implement, analyse science and evaluate practical work in physics. Module 2 - Foundations of physics. Physical quantities and units, making measurements and analysing data, nature of quantities. Module 5 - Newtonian world and astrophysics. Thermal physics, circular motion, oscillations, gravitational fields, astrophysics and cosmology. Module 6 - Particles and medical physics. Capacitors, electric fields, electromagnetism, nuclear and particle physics, medical imaging.					
		SOW	End of Unit Assessments		Module Booklets		Practical Assessments	
		Assessment Type & Unit Focus	Each module will have an end of module test. This will be a set of exam questions covering the content in that unit. They could also include questions that require knowledge from prior content.		Each module has an associated booklet to be completed in parallel to the teaching. It covers key words and definitions, a PLC and exam question practice.		Throughout the two year course students will complete a minimum of 12 assessed practicals to allow them to demonstrate consistent aptitude with a number of key skills. This will lead to a separate practical endorsement qualification.	
		Topic Texts	Physics Review Journals - <i>Hodder Education</i> Four editions per academic year which cover a wide variety of topics and research. They are designed to accompany the A level specification and examiners may refer to articles in exam questions. Instant Physics - <i>Giles Sparrow</i> Schrodinger's Cat, Fifty Experiments that Revolutionized Physics - <i>Adam Hart-Davis</i>					
	Impact	Year 12 Review Points	RP1: T1, Wk3		RP2 (PPE1): T3, Wk2		RP3 (PPE2): T6, Wk4	
		Year 13 Review Points	RP1 (PPE1): T2, Wk1		RP2: T4, Wk1		RP3 (PPE2): T5, Wk1	
		How It Is Used / Skills Set Developed / Outcomes	Research skills, independent skills, practical skills, analysis skills, problem solving skills, teamwork skills.					
		Links to Higher Education	Studying A level Physics, in conjunction with other subjects, will enable higher education opportunities including: Physics, Natural Sciences, Biomedical Sciences, Biochemistry, Computing, Electronics, Economics, Engineering, Environmental Science, Forensic Science, Geology, Medical Science, Medicine, Meteorology, Optometry, Pharmacy, Physiotherapy, Sports Science, Veterinary Science and more.					
		Careers in the Curriculum	Studying a Physics related degree at university will enable career opportunities including: Astronomy and astrophysics, Biophysics, Chemical Physics, Cosmology, Engineering Physics, Geophysics, Medical Physics, Optics, Particle Physics, Quantum Computing and more.					