

Key Stage 5 Physics Curriculum Maps

	AUTUMN															SPRING												SUMMER													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Year 12	Topic – Measurements and their errors Assessment –topic test and throughout course S Units, Uncertainties and data handling P –datahandling, using measuring instruments Sk – handling experimental data and apparatus, mathematical treatment of uncertainties.							Topic – Electricity. Assessment – topic test, Y12 &13 Mock S Current electricity, IV curves, Resistivity, potential dividers, EMF and internal resistance P – experiments in all the above including 2 CAPs Sk – constructing circuits, fault finding, electrical measurement, data handling, mathematical skills, planning, researching, presenting, collaborative work.								Topic – Mechanics Assessment – topic test, Y12 &13 mock S Force, energy, momentum, vectors, moments, linear motion, projectiles, Newtons Laws P – experiments in all the above including 2 CAPs Sk – Experimental skills, data handling, Datalogging, measurement, evaluation, mathematical skills, researching							Topic – Materials Assessment – y12 & 13 mock S Bulk properties of solids, Young Modulus P – experiments in all the above including a CAPs Sk – Experimental skills, data handling, measurement, evaluation, mathematical skills, researching					Revision and Yr 12 Exams (AS EXAMS)				Topic – Further Mechanics Assessment – Topic test. Y13 Mock S circular motion, simple harmonic motion, forced vibrations, resonance P – practical work in all the above including 1 CAP Sk – Experimental skills, data handling, evaluation, researching, planning and mathematical skills									
	Topic – Particles and Radiation Assessment – 2 topic tests, Y12 &13 Mock S Atoms, particle interaction and classification, conservation laws, photoelectric effect, spectra, wave particle duality P – Plank constant expt Sk – Practical manipulation, graphs, logical thinking, extended writing. Research															Topic – Waves Assessment – topic test, Y12 & 13 mock S Progressive waves, stationary and standing waves, superposition, interference, diffraction and refraction, fibreoptics. P – experiments in all the above including 2 CAPs Sk – Experimental skills, data handling, evaluation, mathematical skills, scale drawing skills, researching and planning, using lasers safely.												Revision and Yr 12 Exams (AS EXAMS)				Topic – Gravitational fields Assessment – topic test, Y13 mock S Newtons Law, gravitational field strength and potential, orbits P – calculating g Sk –using video analysis software, mathematical modelling, graphic work including scale drawing, presentations and group work.									

Year 13	Topic – Electric and magnetic fields Assessment – topic test, y13 mock S Coulombs law, Electric field strength and potential, capacitors, magnetic flux, flux linkage, induction, AC, transformers P – experiments in all of the above including 3CAPs Sk – Experimental skills, data handling, evaluation, mathematical skills, researching, modelling, planning.	Y13 Mock exams	Topic – Nuclear Physics, Assessment – A2 exam S Radioactivity, radioactive decay, nuclear radius, nuclear instability, mass and energy, fission and fusion, safety aspects. P – Circus of experiments plus a CAP Sk – Handling radiation safely, data handling, evaluation, mathematical skills, researching, modelling, planning and presenting	Revision	A2 Level Exams
	Topic – Thermal Physics Assessment – topic test & y13 mock S Thermal energy transfer, ideal gases, kinetic theory P – experiments in all of the above including a CAP Sk – Experimental skills, data handling, evaluation, mathematical skills, deriving equations, researching, modelling	Topic – Astrophysics Assessment – A2 exam S Types of telescopes, classification of stars, cosmology P – Building and using a telescope, resolving power, visit to Jodrell Bank includes data handling tasks. Sk – Mathematical and practical skill, extended writing, researching, interpreting graphic data.	Revision		