PCHS Curriculum Information: Year 12 Physics

Course Title: A-Level Physics	Exam Board: AQA	Specification Code:7408

How will students be assessed? Students will sit three two hour external exams at the end of Year 13. During the course, along with other practical work, students will carry out 12 assessed practicals which will lead to the students being awarded their practical skills endorsement.

Physics Paper 1: (85 marks)
Students will complete short and long answer questions (60 marks) on the topic from sections 1-5 and 6.1. The paper includes multiple choice questions (25 marks).

Physics Paper 2: (85 marks)
Students will complete short and long answer questions (60 marks) on the topic from sections 6.2 and 7 - 8 (the questions may assume knowledge from sections 1-6.1). The paper includes 25 multiple choice questions.

Physics Paper 3: (80 marks)
Students will complete 45 marks of long and short answer questions on practical experiments and data analysis, as well as 35 marks of short and long questions from the optional unit, unit 12 turning points in physics.

Half term	Key content	
	Teacher 1 AMI (5 LESSONS)	**Teacher 2 MST (4 lessons)**
1	**Waves** Progressive waves Longitudinal and transverse Principle of superposition **Required practical 1** **Stationary Waves**	**Particles** Constituents of the atom Stable and unstable nuclei Particles, antiparticles and photons Particle interactions
2	**Electromagnetic radiation and quantum phenomena** The photoelectric effect Collisions of electrons with atoms Energy level and photon emission Wave-particle duality	**Particles** Classification of particles Quarks and antiquarks Applications of conservation laws

	Teacher 1 AMI (5 LESSONS)	Teacher 2 MST (4 lessons)
3	**Waves** Interference Diffraction Refraction **Required practical 2** **Interference Effects**	**Mechanics and Materials** Scalars and vectors Moments Motion along a straight line Projectile motion **Required practical 3** **Determination of g**
4	**Electricity** Current electricity Current-voltage characteristics Resistivity **Required practical 5** **Resistivity**	Newton's laws of motion Momentum
5	**Electricity** Circuits Potential divider EMF and internal resistance **Required practical 6 EMF** Work, energy, power Conservation of energy	**Materials** Bulk properties of solids The Young modulus **Required practical 4 Young Modulus**
6	**Revision**	**Revision**