PCHS Curriculum Information - Year 9

Course Title: GCSE Physics	**Exam Board: AQA Specification Code: 8463**

How will students be assessed?
In GCSE Physics, students will sit two external exams at the end of Year 11. Each paper is worth 50% of their final GCSE grade. Exams will be 1 hour and 45 minutes in length requiring students to answer structured, closed short answer and open response questions. Questions will be knowledge based as well as drawing on the practical work that students have completed throughout the course.

Physics GCSE Paper 1: This will assess the topic areas of energy, electricity, the particle model of matter and atomic structure.

Physics GCSE Paper 2: This will assess the topic areas of forces, waves, magnetism and electromagnetism, space physics as well as some of the work previously done on energy and electricity.

Half Term	**KEY CONTENT**
1	<u>Energy</u> Students will be introduced to key concepts in the GCSE energy topic including: ● Energy stores and transfers ● Conservation of energy and efficiency ● Work done ● Energy transfers by heating ● Renewable and non-renewable energy resources. Skills introduced will include: ● using and interpreting graphs and plots ● using and rearranging equations.
2	**Assessment 1: Energy** <u>Particle Model of Matter</u> Students will be introduced to the GCSE topic on particle model of matter. This will include: ● Describing in terms of particle model and movement different states (solid, liquid and gas) ● Describing state changes using practical and graphical methods ● Calculating the density of different materials ● Using practical skills to determine the density of different objects. **Assessment 2: Particle model of matter**

3	<u>Forces</u> Students will be introduced to the GCSE topic on forces. This will include: ● Naming and describing forces ● Scalars and Vectors ● Combining forces ● Forces and deformation ● Hooke's Law ● Speed, Distance and time **Assessment 3: Forces**
4	<u>Space</u> Students will be introduced to the GCSE topic on space. This will include: ● Solar system: size and scale ● Orbits and seasons ● Gravity, weight and mass ● Formation of a star ● **Short project/presentation task on space**
5	<u>Waves</u> Students will be introduced to the GCSE topic on waves. This will include: ● Descriptions of waves ● Sound, hearing and ultrasound ● Speed of sound practical ● Light: properties. ● Light reflection and refraction
6	<u>Waves</u> Students will be conclude the waves topic and assessment **Assessment 4: Waves** <u>Basic Electricity</u> Students will be introduced to the GCSE topic on electricity. ● Basic circuit components ● Constructing series and parallel circuits. ● Electric plugs and safety in the home