Huxlow Science College
Opening Doors to Brighter Futures

Science
Year 9 – Triple Physics

Year 9 is part of Key Stage 4, in Science. The course starts with an introductory module that introduces learners to the scientific method and how to process data. All material studied in this year can be examined at GCSE level in year 11.

TERM	UNIT	WHAT WILL YOU BE LEARNING?	ARE YOU PREPARED FOR LEARNING?
1	*Introduction Module* P1.1 The particle model	In the introduction module you will learn about the scientific method. How to collect, record and process data. All of these skills are essential for the practical aspect of your course and also for examination questions based on practical techniques. It is important that you follow the rules given so that you learn to present graphs etc properly. • Different atomic models • Development of the atomic model • Density of regular shaped solids • Density of irregular shaped solids • Density of solids liquids and gases • The Archimedes principal	Your exercise book will be clearly presented and all work will be complete. Practical work will be written up and evidence of required practicals will be kept in your progress folder. You will come to lesson with stationery, books and relevant homework. Are you using a revision guide to support your studies.
2	P1.2 Changes of state	• Sates of matter • Physical and chemical changes • Heating • Storing heat, specific heat capacity • Heating and changing state	
3	P1.3 Pressure	• Particle motion in gases • Pressure and temperature changes • Pressure on gases • Pressure and volume	

		• Work done on a gas • Atmospheric pressure • Pressure in fluids • Buoyancy	
4	P2.1 Motion	• Distance, time and speed • Velocity • Acceleration • Displacement time graphs • Velocity time graphs • Equations of motion • Kinetic energy	
5	P2.2 Newton's laws	• Types of forces • Newton's 3rd law of motion • Vectors and free body diagrams • Newton's 1st law of motion • Terminal velocity • Resultant forces • Newton's 2nd law • Work done, energy stored and power • Circular motion	
6	P2.3 Forces in action End of Year Exam	• Forces on objects • Hooke's Law • Work done and energy stored in springs • Gravitation fields, mass and weight • Gravity and acceleration • Moments • Leavers and gears • Pressure in fluids • Hydraulics	
At the end of each module students are set revision exercises to complete before taking a test. At the end of each section there will be a synoptic test covering all material studied. At the end of the year there will be a mock examination on all material studied so far.			