



Curriculum Overview – Physics (Year 7 – 11)

Year	Overview	Autumn 1 (Weeks 1 – 7)	Autumn 2 (Weeks 8 – 14)	Spring 1 (Weeks 15 - 20)	Spring 2 (Weeks 21 - 26)	Summer 1 (Weeks 27 - 32)	Summer 2 (Weeks 33 - 38)	Student Resources
7	Year 7 will be covering a range of topics in biology, chemistry and physics. The aim is to give the students a broad understanding of the sciences and develop practical skills. Topics are split into 6 lesson teaching blocks; each block provides opportunities for students to develop their scientific literacy and numeracy.	Waves - students will learn how we see objects and how light behaves when it hits different materials. They will also find out why you see the lightning before you hear the thunder.		Forces - how they arise and how they change the motion of an object. Students will also learn how to measure speed and how to tell the story of a journey with graph.		Electromagnetics - what batteries do and how to use circuit components to make circuits to do different jobs. Electric charge and how objects can become charged, we use this idea to explain electric shocks and lightning.		Assessment through end of topic test and end of year exam.
		Assessment through end of topic test.						
8	Year 8 will be covering a range of topics in biology, chemistry and physics. The aim is to give the students a broad understanding of the sciences and develop practical skills. Topics are split into 6 lesson teaching blocks; each block provides opportunities for students to develop their scientific literacy and numeracy.	Forces - understanding the forces acting on an object allows you to explain how it is moving, or not moving. Students will learn about the pressure of one solid object, like the skydiver, on another solid object, like the ground.		Waves - find out about ultrasound and some of its uses, and how the wave model can help to explain wave behaviour.		Energy - transferring energy with radiation and particles.		Assessment through end of topic test and end of year exam.
		Assessment through end of topic test.						
9	Year 9 students begin following the AQA Physics GCSE course. They will cover all aspects of the course relating to paper 1 of their GCSEs.	Conservation and dissipation of energy - ways energy can be stored and transferred.	Energy transfer by heating - best materials for conduction and insulators. How thermal conductivity of a material affects the rate of energy transferred.	Energy resources - what energy resources are used, how nuclear fuels are used in power stations, and what other fuels are used to generate electricity.	Electric circuits - what happens when insulating materials rub together, what is transferred when objects become charged and what happens when charges are brought together.	Electricity in the home - what direct /alternating currents are, what live wire and neutral wire of a mains circuit is, and how to use an oscilloscope.	Molecules and matter - how density is defined and its units of measurements, how to measure the density of a solid object or a liquid, and how to use density equation to calculate the mass or volume.	Assessment through end of topic test and end of year exam.
		Assessment through end of topic test.						
10	Year 10 students begin following the AQA Physics GCSE course. They will cover all aspects of the course relating to paper 2 of their GCSEs.	Forces in balance – what displacement is, vector quantity, scalar quantity, and how to represent a vector quantity.	Forces and motion - the effect that the mass of an object has on its acceleration, and how to calculate resultant force of an object from its acceleration and mass.	Wave properties - what waves can be used for, what transverse waves are, and what longitudinal waves are.	Space - how the solar system is formed, what is meant by protostar, how energy is released inside the sun, and why the sun is stable.	Electric circuits - what happens when insulating materials rub together, what is transferred when objects become charged, what happens when charges are brought together.	Molecules and matter.	Assessment through end of topic test and end of year exam.
		Assessment through end of topic test.						

11	Year 11 students continue the AQA Physics GCSE course. They will complete and review all aspects of the course relating to papers 1 and 2 of their GCSE's.	Electromagnetism - the force rule for two magnetic poles near each other, the pattern of magnetic field lines around a bar magnet and what induced magnetism is.	Forces and pressure - what is meant by pressure, what the unit of pressure is, how to use the pressure equation, and know why the area of contact is important in pressure applications.	Review - energy, energy resources and particles at work.	Review - forces in action, waves, electromagnetism, and space.	Exam preparation paper 1 and 2.	N/A	
			Mock examinations.	Mock examinations.	Mock examinations.		GCSE examination.	
Notes:			Examination Specification: AQA GCSE in Physics.			Homework Portal: Go4Schools and Kerboodle.		
						Further resources:		