

Physics Long Term Plan Year 10 2019-20

Temperance Term

W/C	2nd September	9th September	16th September	23rd September	30th September	7th October	14th October	21st October
Topic	P3 - Particle model of matter							
	Students should be able to explain the differences in density between the different states of matter in terms of the arrangement of atoms or molecules.							
Challenge	Explain the differences in density between the different states of matter in terms of the arrangement of atoms or molecules.							
Assessment	P3 mid-unit and end of unit exams							
W/C	HALF TERM	4th November	11th November	18th November	25th November	2nd December	9th December	CHRISTMAS
Topic		P4 – Atomic Structure						
		Describe the discovery of the electron led to the plum pudding model of the atom. The plum pudding model suggested that the atom is a ball of positive charge with negative electrons embedded in it.						
Challenge		Justify the significance of the Rutherford experiment for the development of the atom model.						
Assessment		P4 mid term exam						

Physics Long Term Plan Year 10 2019-20

Justice Term

W/C	6 th January	13 th January	20 st January	27 th January	3rd February	10 th February	HALF TERM
Topic	P4 – Atomic structure						
	Relate differences between isotopes to differences in conventional representations of their identities, charges and masses (similar content to Chemistry). Explain the use of Avogadro’s number in calculations.						
Challenge	Compare and contrast isotopes using the correct nomenclature.						
Assessment	Mid term and end of unit exams						
W/C	24 th February	2nd March	9 th March	16 th March	23 rd March	30 th March	EASTER
Topic	P5 - forces						
	Recall typical values of speed for a person walking, running and cycling as well as the typical values of speed for different types of transportation systems.						
Challenge	Determine speed, acceleration and distance from multiple graphs using mathematical tools such as area under line and gradient.						
Assessment	Mid term and end of unit exams						

Physics Long Term Plan Year 10 2019-20

Courage Term

W/C	20 th April	27 th April	4 th May	11 th May	18 th May	HALF TERM
Topic	P6 – Waves					
	Show how changes in velocity, frequency and wavelength, in transmission of sound waves from one medium to another, are inter-related			Year 10 Mock Exams		
Challenge	Evaluate evidence that, for both ripples on a water surface and sound waves in air, it is the wave and not the water or air itself that travels.					
Assessment	Mid term and end of unit exams					
W/C	1 st June	8 th June	15 th June	22 nd June	29 th June	6 th July
Topic	Work Experience	P7 – Electromagnetism and Magnetism				
		Describe the use of magnets, including their magnetic field. Interpret diagrams of solenoids and determine the direction of force using Flemings Left Hand rule. Describe uses of electromagnets.				
Challenge		Determine the resultant force on a wire from a circuit diagram, including electricity flow. Explain how to improve the strength of an electromagnet.				
Assessment		End of unit exams				