

Physics Long Term Plan Year 10 2020-21

Temperance Term

W/C	7th September	14th September	21th September	28th September	5th October	12th October	19th October	HALF TERM	
Topic	Review	P3- Particle Model of Matter (P4 after Hazards and uses)							
	Review of Y10 home learning	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	Grade 7, 8, 9 challenge questions	Explain the differences in density between the different states of matter in terms of the arrangement of atoms or molecules.							
Assessment	Self assessment and in-class tests	End of unit exams							
W/C	2nd November	9th November	16th November	23rd November	30th November	7th December	CHRISTMAS		
Topic	P2- Electricity								
	Describe the current characteristics through an ohmic conductor (at a constant temperature) is directly proportional to the potential difference across the resistor. This means that the resistance remains constant as the current changes.								
Challenge	Limitations of the simple model above include that in the model there are no forces, that all particles are represented as spheres and that the spheres are solid.								
Assessment	End of Unit exams								

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Justice Term

W/C	4 th January	11 th January	18 st January	25 th January	1st February	8 th February	HALF TERM
Topic	P2 – Electricity						
	Students should be able to describe with examples where there are energy transfers in a closed system, that there is no net change to the total energy. Students should be able to explain ways of reducing unwanted energy transfers, for example through lubrication and the use of thermal insulation.						
Challenge	Identify environmental issues arising from the use of energy resources and evaluate the power to deal with the issues considering political, social, ethical or economic considerations.						
Assessment	Mid term and end of unit exams						
W/C	22 nd February	1 st March	8 th March	15 th March	22 nd March	29 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						

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Courage Term

W/C	19 th April	26 th April	3 rd May	10 th May	17 th May	24 th May	HALF TERM
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						
W/C	7 th June	14 th June	21 st June	28 th June	5 th July	12 th July	SUMMER
Topic	P7 – Electromagnetism and Magnetism						
	Year 10 Mock Exams		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				