Combined Physics Year 11 Curriculum Overview

What is the Year 11 Physics curriculum aiming to achieve?		
What do we want our Year 10 Scientists to be like?	How are we building on prior learning?	How can parents/carers support their child's learning?
• Be excited and enthusiastic about the scientific world around us • Be safe and competent practical scientists • Be able to make links between observations and scientific theory • Be good verbal and written communicators using key terms • Have furthered their understanding of key concepts in Physics	• We will make links to and build on the Physics topics from Year 10 and KS3 • We will build on our working scientifically skills in the areas of analysis, communication, enquiry and problem solving	• Talk to the pupils about what they are learning about in lessons • Be curious about the world around you and discuss with your child • Support your child with homework tasks • Help your child consolidate their school learning e.g. using BBC Bitesize or watching scientific documentaries

How are we organising the Year 11 Physics curriculum?						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics	Forces in Balance	Forces in Action	Electromagnetism	Required Practical's Re-visit	Revision Program	GCSE Examinations
Threshold Concepts	Vectors and Scalars Newton's 1st & 3rd Law Centre of Mass	Newton's 2nd Law Terminal Velocity Forces and Braking Momentum Impact Forces	Magnetic fields Magnetic fields of electric currents The motor effect			
Skills	Manipulating equations Scale drawing	Using lights gates to improve accuracy Resolution of equipment	Building a motor	Reviewing evidence and applying theories		
Enrichment within the curriculum	The forces in action topic allows us to explore challenges base jumpers have carried out and explore ideas of travel in space. The momentum topic and the braking distances topics gives students the opportunity to apply their learning to safety on the road and safe travel.					
Cross curricular links	• Mathematics – rearranging equations, drawing tangents to curves, calculating surface areas and volumes of cubes (rates) • RS – some students may have differing theories about the beginning of the Universe and this can be expressed					
Extra-curricular opportunities	Different Physics staff are available each week at Year 11 Core Revision Café. However, there are many places you can get some extra help with Physics. GCSE Pod is excellent, and there are hundreds of pods to support you if you are on AQA Combined (Trilogy) or Separate Physics. The CPG revision guides are a good starting point if revising for tests / exams or need some help with homework tasks. These are available on Parent Pay and you can collect your guides if you bring a copy of your receipt to the Science workroom. Helpful websites 1. BBC Bitesize Physics : https://www.bbc.co.uk/bitesize/examspecs/zsc9rdm Combined Physics Trilogy : https://www.bbc.co.uk/bitesize/topics/zqw77p3 2. Seneca learning Physics : https://app.senecalearning.com/classroom/course/fe56ca00-05aa-11e8-9a61-01927559cfd5/section/0ea7b6b0-0823-11e8-9af8-abc41ec56055/session Combined Physics Trilogy:					

* Higher Only, *Italics* Physics only

	Foundation : https://app.senecalearning.com/classroom/course/f4627c20-1e1d-11e8-b99c-3168302284a4/section/933275d0-1e1e-11e8-b99c-3168302284a4/session Higher : https://app.senecalearning.com/classroom/course/e7813ccb-376e-4375-9477-e8baddd262ba/section/28ce1e8a-b64d-4608-b39a-fb26de54dabf/session

What are the intended outcomes of the Year 11 Physics curriculum?						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Opportunities to show progress (Assessments)	Homework tasks and end of topic test "Forces in Balance"	CTG task and end of topic test "Forces in Action"	End of topic test "Electromagnetism"	Revision programme with regular revision tests	Paper 1 and paper 2 examinations	
Impact on personal development (SMSC)	*Gives students a greater understanding of how machines work and the motion of vehicles. Teaching stopping distances and impacts needs to be done carefully as students may be sensitive if they or family had been involved in collisions. Lessons learnt here could help students understand the factors they need to consider when they learn to drive.*					
Preparation for the next stage of education	*These topics are examined in Paper 2 GCSE exams.* *All these topics are studied again in greater depth at A level*					

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