Curriculum Content Map			р		Term 1				Subject: Year 11 Combined Physics				Term 3		
	Month	h		September	October	November	December	January	February	March	April	May	June	July	
		~		Chapter 9 - Motion Chapter 10 - Force and motion	Chapter 10 - Force and pressure	Chapter 12 - Wave properties	Revision for and analysis of AP1	Chapter 14 - Light Chapter 15 - Electromagnetism	Revision Biology Revision Chemistry Revision Physics	Revision Biology Revision Chemistry Revision Physics	Revision Biology Revision Chemistry Revision Physics	Revision Biology Revision Chemistry Revision Physics	Revision Biology Revision Chemistry Revision Physics	Revision Biology Revision Chemistry Revision Physics	
		Units of Worl							neradu rupa.s	nevolui rinjska	NEWSKIP PHYSICS	newskom Priyskus	ne roduli r nyska	nension rugals	
		National Curriculum area – KS4		Forces and motion - speed of sound, estimating speeds and accelerations in everyday contexts - interpreting quantitatively graphs of distance, time, and speed	Forces and motion Forces and motion accelerations in everyday contexts = interpreting quartitatively graphs of distance, time, and speed everyther and gravitational field strength everyther and gravitational field strength excelerations and braking distances involved on roads, safety. Force and pressure - Pressure and suffaces - Pressure in liquids - Pressure and suffaces - Pressure in liquids - Pressure in liquids - Pressure in liquids - Pressure and suffaces - Pressure in liquids - Pressure and suffaces - Pressure in liquids - Pressure and suffaces - Pre	+anglitide, wavelength, frequency, relating velocity to frequency and wavelength + transverse and longitudinal waves +sound waves +The uses of ultrasound <2eismic waves	-amplitude, wwelength, frequency, relating working to requency and wavelength - transverse and longitudinal waves - electromagnetic waves, velocity in vacuum, waves transferring energy, wavelength and takes in this fraction to gave, infract, wishe, utb-violet, X-ray and gammaray regions, -thazardous effects on bodily tissues. Light - the normal and laws of reflection including specular reflection and diffuer effection - electronic and there meters - elocorr - bed difference between transparent and tocorrese and concave lenses and calculating magnification	Light -The normal and laws of reflection including specular reflection and diffuer effection -relation and diffuer ginediums -colour	Teachers will plan individual lessons dependent on the strengths and weaknesses of individual groups	Teachers will plan individual lessons dependent on the strengths and weaknesses of individual groups	Texchers will plan individual lessons dependent on the strength: and weaknesses of individual groups	Teachers will jain individual lessons dependent on the strengths and wasknesses of individual groups			
Cultural Transmission		Substantive knowledge	The What!	The difference between scalars and vectors followed resultant forces and their connection to acceleration interpreting velocity time graphs and the use of yrms-C how to calculate acceleration from a velocity time graph shows . What the area under a velocity time graph shows a velocity time graph	The difference between scalars and vectors followed resultant forces and their connection to acceleration Powtor's three laws of motion, inertia mass and equations of motion undergoing uniform equations of motion undergoing uniform acceleration of material and acceleration of the scalar of the scalar and the scalar concert of momentum of detailed resonance of domentum of detailed resonance of the scalar and and precise measurements. Wave properties: Transverse and longitudinal waves Amplitude, wavespeed, frequency reflection and refraction	Wave properties and how these relate to sound waves. Students will discover the uses of ultrasound and explain how seemic waves are used as a warning system for enthquakes. Students will explain the nature of S and P waves	Different parts of the electromagnetic spectrum and their uses Homo to calculate frequency of electromagnetic waves Homo to acculate frequency of electromagnetic and homole phone radiation Homole phone Homole phone	The ascentro affect and share tator arounds students will user up hoses and glass blocks to investigate the refraction of a light ray in glass. Some students may demonstrate the refraction in a priore to colour later in the topic. Students will use different colour and return of surfaces to investigate their effect. Students will construct try diagrams with consets an dimensigate their effect. Students will construct the students of the consets and more student to the student bar magnet. The pattern of magnetic field around a sciencial which pattern of a magnetic field around a sciencial - how the strength and direction of the field varies with position and with the current - what and excerts and magnetic field - analyse is a strength of the strength of - how the strength and direction of the field varies with position and with the current - what a uniform dore works and what is meant by magnetic fluid density, including how to calculate the force on a current carrying wire							
	Culture	Disciplinary knowledge	The How!	students will analyse a variety of velocity time graphs and used act collected from the graphs in calculations, including examples where speed is changing. Students have analysed the motion of objects in depth stating from a recay of the concept of speed and this relationship to distance travelied and time taken. The representation of motion using distance-time graphs representing single and multiple objects has been analysed to give detailed exciptions of the movement of the objects. The students have defined acceleration in terms of changes in velocity before analysing is graphically and mathematically.	Students have analysed the motion of objects in depth starting from a recay of the concept of speed and this relationship to distance travelied and time taken. The representation of motion using distance-time graphs representing single and multiple objects has been analysed to give detailed descriptions of the movement of the objects. If the students have defined acceleration in terms of changes in velocity before analysing a graphically and mathematically. Higher tier students have also outlined circular motion in terms of constant acceleration but with constant speed. All students have then imbalanced force on range, having authalanced force on range, having Students will carry out a required practical relating to the extension of a spring Wave encoretties:	Students will describe weeks and their properties including wavelength, amplitude, vivespeed and frequency. Students will manufule the wave equation to calculate all values. Students have studied wave properties before and will build on knowledge from K35 to include practical uses of the parts of the electromagnetic spectrum and understand the dangers of orned of these waves linked to their individual properties.	Students will complete a range of activities such as long anxieve examination questions, multuiple choice questions and short answer questions	Students will complete a range of activities such as long answer examination questions, multuiple choice questions and short answer questions	Students will complete a range of activities such as long anxieve examination questions, multuiple choice questions and short answer questions	Students will complete a mange of activities such as long maxime examination questions, r multuiple choice questions and short answer questions	Students will complete a range of activities, such as long arrow examination questions, multuiple choice questions and short answer questions				
	_	ummative seesment	Retrieval & Extension	IS3: 1.5 goed 1.2 Gravity 3.3 Contact forces 3.4 Energy transfer 1.5 goed 1.2 gravity 1.3 gravity forces	137 13 Speed 13 Goract fores 3.4 Energy transfer 1.1 Speed 1.1 speed 1.3 gravity forces 4.1 Sound 4.2 Light Biology Y11 chapter 10 Reaction time	CS1: 1.4 Energy transfer 4.4 Wave Effect 4.4 Wave Properties AP1	CS3: 1.4 Inoregi transfer 4.3 Wave Effect 4.4 Wave Properties	 CS: 1-2 foreign transfer CS: 2-4 foreign transfer CS: 2-4 foreign transfer A Wave Properties AP2-Paper 1 	CS3: 14 foreigt transfer 4.3 Wave Effect 4.4 Wave Properties	 S3: 1.4 Intergy transfer 4.3 Work (Fect 4.4 Work Properties 711 Biology chapter 10 The eye and the use of corrective lenses for eye defects Mock examinations (papers 1 and 2) 	2 1 potential difference and resistance 2.2 current 2.1 Potential difference and resistance 2.2 current 2.4 Electromagnets	GKSE Papers	GCSE Papers	GCSE Papers	
Preparation for Work Personal Empowerment	upowerment	Virtue S	t, think deeply and a litally an issue.	Friendliness and Civility	Justice & Truthfulness	Courage	Generosity	Gratitude	Good Speech	Good Temper & Humour	Self-Mastery	Self-Mastery	Compassion	Good Sense	
	Personal Er	Link to Virtue	The opportunity to reflec about	Students will need to demonstrate friendliness and civility as they work in groups to complete a variety of different practical. They will need to demonstrate civility as they work towards a method to ensure they are civil with each other to achieve a common goal.	Students will demonstrate truthfulness within their work as they reflect on their finding within an investigation. Students will look at the justice on each results and determine if they are reaching their full potential.	Within the lessons, students will need to have the courage to answer the questions with their learning. Students will need to demonstrate their understanding of the courage by applying their learning to their exams and independent practice within lessons.	Students will need to demonstrate generosity of as they work with groups and demonstrate their understanding of their learning. They will need to be generous with their time and comments towards each other	Student will demonstrate good speech within their lessons by demonstrating their key words within lessons and their work.	As students work within group they will need to demonstrate, good temper as they work towards a practical to achieve the independent practice. Students will need to demonstrate good humour as they can work together and laugh as each other learn	d Students will need to demonstrate good humour as they complete the last sections of the physics course while also revising for thei terminal exams	Students will need to behave in anexemplary manner in lessons in order to investigate the properties of light waves.	Students will need to aim high for their up and coming exams. Students will need to revise in their own time and ensure they are fully prepared for their GCSES	Students will need to aim high for their up and coming exams. Students will need to revise in their own time and ensure they are fully prepared for their GCSES	Students will need to aim high for their up and coming exams. Students will need to revise in their own time and ensure they are fully prepared for their GCSES	
		Skill	skālts	Listening	Leadership	Problem-Solving	Creativity	Staying Positive	Speaking	Staying Positive	Aiming High	Aiming High	Speaking	Teamwork	
	Preparation	Link to Skill	Transferable :	Students will need to listen to each other and be able to explain another students' opinion. Students will also need to be listen to the teacher to pull out consistency underlying themes or use of previous skills.	Students will lead their learning to ensure they are secure in building on previous knowledge.	Students will need to use their problem- solving skills to be able to draw conclusions from data.	Students will need to be creative when using their notes to revise for the mock examinations and use active learning techniques.	Students will need to stay positive as they learn new key words and definitions. Building on their previous knowledge	Students will need to demonstrate good speaking when working with others and demonstrate what knowledge they understand and what they need help with in prepare.	Students will be remaining positive during practical sessions and demonstrating perseverence to ensure that they complete all of the tasks set and providing evidence for the experiment h	Students will need to aim high for their up and coming exams. Students will need to revise in their own time and ensure they are fully prepared for their GCSES	Students will need to aim high for their up and coming exams. Students will need to revise in their own time and ensure they are fully prepared for their GCSES			
Preparation	for Citizenship	Link to SMSC & SMSC & British British Values Values	Developing opinions on curent issues												