Physics Curriculum Map							
A. Formal Curriculum Key Stage 4							
Core Content & Skills		By the end of key stage FOUR we want all students of [subject] to know and do the following things:					
Prior Knowledge & Skills		In KS4, students of [subject] will build on the following prior learning:					
Future knowledge		The Curriculum in KS4 [Subject] will prepare students for the following future learning:					
Year 11	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1 **Waves** Wave behaviour is common in both natural and man-made systems. Waves carry energy from one place to another and can also carry information. Designing comfortable and safe structures such as bridges, houses and music performance halls requires an understanding of mechanical waves. Modern technologies such as imaging and communication systems show how we can make the most of electromagnetic waves.	Term 2 **Magnetism and Electromagnetism** Electromagnetic effects are used in a wide variety of devices. Engineers make use of the fact that a magnet moving in a coil can produce electric current and also that when current flows around a magnet it can produce movement. It means that systems that involve control or communications can take full advantage of this.	Term 3 **Space (GCSE Physics only). Recapping Prior knowledge (Combined Science).** Questions about where we are, and where we came from, have been asked for thousands of years. In the past century, astronomers and astrophysicists have made remarkable progress in understanding the scale and structure of the universe, its evolution and ours. New questions have emerged recently. 'Dark matter', which bends light and holds galaxies together but does not emit electromagnetic radiation, is everywhere – what is	Term 4	Term 5	Term 6

				it? And what is causing the universe to expand ever faster?			
	Key assessment points	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments			
Year 10	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
		Atomic Structure Ionising radiation is hazardous but can be very useful. Although radioactivity was discovered over a century ago, it took many nuclear physicists several decades to understand the structure of atoms, nuclear forces and stability. Early researchers suffered from their exposure to ionising radiation. Rules for radiological protection were first introduced in the 1930s and subsequently improved. Today radioactive materials are widely used in	**Forces** Engineers analyse forces when designing a great variety of machines and instruments, from road bridges and fairground rides to atomic force microscopes. Anything mechanical can be analysed in this way. Recent developments in artificial limbs use the analysis of forces to make movement possible	**Atomic Structure (additional for GCSE Physics).** Covers Fission and Fusion – this is taght after the year 10 setting test as it is not part of combined science **Forces continued**	**Forces Continued**	**Forces Continued**	**Forces Continued**

		medicine, industry, agriculture and electrical power generation.					
	Key assessment points	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Year 10 setting test	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments
Year 9	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1 & Term 2 **Energy – Energy stores and Thermal energy** The concept of energy emerged in the 19th century. The idea was used to explain the work output of steam engines and then generalised to understand other heat engines. It also became a key tool for understanding chemical reactions and biological systems. This topic develops knowledge from KS3 in terms of energy stores and how to calculate energy transfers and efficiency.		Term 3 **Energy – power production** Electrical power fills the modern world with artificial light and sound, information and entertainment, remote sensing and control. The fundamentals of electromagnetism were worked out by scientists of the 19th century. However, power stations, like all machines, have a limited lifetime. If we all continue to demand more electricity this means building new power stations in every generation – but what mix of power	Term 4 **Electricity – Electric circuits** Electric charge is a fundamental property of matter everywhere. Understanding the difference in the microstructure of conductors, semiconductors and insulators makes it possible to design components and build electric circuits.	Term 5 **Electricity – Electricity in the home** Many circuits are powered with mains electricity, but portable electrical devices must use batteries of some kind. This topic links back to the work covered in term 4 and the work done on electric circuits in KS3. **particle model of matter** The particle model is widely used to	Term 6 **Particle model of matter** The particle model is widely used to predict the behaviour of solids, liquids and gases and this has many applications in everyday life. It helps us to explain a wide range of observations and engineers use these principles when designing vessels to withstand high pressures and temperatures, such as submarines and spacecraft. It also explains why it is difficult to make a good cup of tea high up a mountain!

			stations can promise a sustainable future? Limits to the use of fossil fuels and global warming are critical problems for this century. Physicists and engineers are working hard to identify ways to reduce our energy usage. This topic develops knowledge from KS3 science and other subjects in terms of the problems with using different methods of power production.		predict the behaviour of solids, liquids and gases and this has many applications in everyday life. It helps us to explain a wide range of observations and engineers use these principles when designing vessels to withstand high pressures and temperatures, such as submarines and spacecraft. It also explains why it is difficult to make a good cup of tea high up a mountain! This model builds on the concepts taught at KS3 in terms of the arrangement of particles in solids liquids and gases and how energy is transferred in order for a substance to change state. It introduces the concepts of specific heat capacity and latent heat which are Important concepts	This model builds on the concepts taught at KS3 in terms of the arrangement of particles in solids liquids and gases and how energy is transferred in order for a substance to change state. It introduces the concepts of specific heat capacity and latent heat which are Important concepts in the thermal energy component of KS5

						in the thermal energy component of KS5	
	Key assessment points	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	Ongoing exam style questions Teacher Assessed Tasks End of Chapter test End of topic test Required practical assessments	End of year exam
B. Holistic development via Enrichment/Personal Development Curriculum							
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[Subject] Curriculum Map							
A. Formal Curriculum Key Stage 3							
Core Content & Skills		By the end of key stage 3 we want all students of [subject] to know and do the following things:					
Prior Knowledge & Skills		In KS3, students of [subject] will build on the following prior learning:					
Future knowledge		The Curriculum in KS3 [Subject] will prepare students for the following future learning:					
Year 8	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Key assessment points						
Year 7	Key knowledge, skills and concepts TAUGHT, REVISED, REVISITED AND LEARNT	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Key assessment points						
B. Holistic development via Enrichment/Personal Development Curriculum							