Year 7 Science	Subject Intent	Our 5-year spiral curriculum is built upon the nine principal ideas in Science. These ideas weave through the years, underpinning and reinforcing all aspects of the lessons. Our curriculum aims to take students on a journey of exploring and investigating natural phenomena. For us it is essential that students develop secure deep understanding to make genuine progression in all these areas, by inspiring the curious and stimulating excited minds. Students will develop the confidence to explain what they observe, predict how things will behave and analyse their results. Throughout their journey, students will be empowered to recognise for themselves the progress they have made in securing the concepts met and start to build the interconnecting links between the fundamental ideas. Each step of the curriculum is explored in the context of past, present, and future phenomena, building in complexity as the journey continues. Our knowledge rich curriculum, is underpinned by high quality text that will enable students to communicate their new insight through their writing, modelling and practical skills.
	KS3 Subject Narrative	Our 5-year spiral curriculum builds on conceptual knowledge and develops a diverse foundation on to which students can explore the Sciences in greater depth. Our lessons at KS3 will allow all students to develop deep scientific knowledge and conceptual understanding of the natural phenomena they encounter each day. Our curriculum explores the world around them, where we introduce and develop students understanding of the nature, process, and methods we utilise in Science. Through practical and theory-based lessons we aim to equip all our students with the scientific knowledge and understanding to ask the questions why? And have the skills and confidence to find the answers for themselves.
	KS4 Subject Narrative	Our 5-year curriculum at KS4 expands and builds upon the deepening scientific knowledge and understanding introduced in the earlier key stages for each of the three disciplines. Our lessons allow all students to be taught the essential aspects of the knowledge, methods, processes and uses of Science. Through practicals and theory-based lessons we explore more complex and diverse phenomena of the world around us.
	Routine Assessment Strategies	Students will be assessed using, project work and key indicator pieces using working scientifically framework. Each student will receive a minimum of two SAR (strength, action and response) formative assessments per module.

	WHY THIS, WHY NOW?	Autumn Term – What does studying Science really mean?	Spring Term – Why does that happen?	Summer Term- Exploring outside the lab
Year 7 Science	Enquiry questions	• What are variables? • What is matter? • What are living things made of? • Why is energy so important?	• What is stuff really made of? • What do you need to stay healthy?	• How are forces useful? • How do all living things interact? • How do I find the answers?
	Key Subject Knowledge	• Developing practical skills to ensure access all concepts. • Describing the properties of the 3 states of matter. • Understanding the cellular structure, functions, and processes of living organisms. • Explaining the importance of energy in all things	• Developing particle models to explain simple chemical reactions. • Explaining a balanced diet and why it keeps us healthy.	• Explaining the interdependence of biotic and abiotic factors in an ecosystem. • Describing what a force is and how it acts. • Understanding the concepts and procedures used by Scientists to develop scientific explanations.
	Subject Competencies	• Select, plan and carry out appropriate practicals. • Use models to explain natural phenomena. • Develop Scientific vocabulary to explain matter in terms of particle models and their properties	• Apply foundation scientific concepts to novel situations. • Develop arguments based on scientific evidence to support or contradict a hypothesis. • Develop practical skills and their application.	• Explore natural phenomena and formulate ideas and explanations for them. • Further develop models to support understanding of more complex ideas. • Develop practical skills and their application.
	Summative Assessments (high stakes assessments which test cumulative knowledge)	• A baseline assessment on content covered at KS2 • A cumulative assessment on all content to date	• Mid-year cumulative assessment on content to date.	• End of year cumulative assessment on Yr 7 content.
	How does this pave the way for future study?	• Explaining natural phenomena is a fundamental skill needed to access content at KS4. • The development of vocabulary and models that will allow for more complex phenomena to be explored in more detail. • All these topics will be explored in the chemistry and physics PoS.	• Explaining natural phenomena is a fundamental skill needed to access content at KS4. • The development of vocabulary and models that will allow for more complex phenomena to be explored in more detail. • All these topics will be explored in the biology, chemistry, and physics PoS.	• Explaining natural phenomena is a fundamental skill needed to access content at KS4. • The development of vocabulary and models that will allow for more complex phenomena to be explored in more detail. • All these topics will be explored in the biology and physics PoS.