## Year 7 Curriculum Overview [2021-2022] Subject – Science

Autumn Term	Knowledge & Understanding			Literacy Skills Opportunities for	Employability Skills	Assessment
	Composites	Components [includes understanding of KEY concepts & subject specific vocab]	Formal Retrieval [if any]	developing literacy skills	[if any]	Opportunities
HT1	Cells	<ul> <li>Cells</li> <li>Life Processes</li> <li>Organ systems (cells, tissues, organs, systems)</li> <li>Microscopes</li> </ul>	Organs and MRS GREN	History of the Microscope	• Donors	Assessment Point 1 Class assessment on Cells and Separating techniques and skills
	Clear understanding of mixtures and separating techniques	<ul> <li>Different separating techniques</li> <li>Laboratory safety</li> <li>Key solubility terms</li> <li>Method writing skills</li> </ul>	Separating Substances	Solubility key words, hazards, solubility. Method writing	Working as a scientist in a lab Sewage works	
HT2	Forces	<ul> <li>Different Forces</li> <li>Mass and Weight</li> <li>Springs</li> <li>Pressure</li> <li>Si Units</li> <li>Balanced and Unbalanced</li> </ul>	Forces     pushes and     pulls KS2	Understanding abbreviations for common units	Mechanical Engineer	Assessment point 2: Summative assessment on Separating techniques, cells and Forces
	Animal reproduction	<ul><li>Reproductive organs</li><li>Gestation and birth</li><li>Puberty</li></ul>	Organelles	IVF – making notes	<ul> <li>Working as a vet</li> <li>Working as a midwife</li> <li>Conservation Worker</li> <li>Zoologist</li> </ul>	

## Year 7 Curriculum Overview [2021-2022] Subject – Science

Spring Term	Knowledge & Understanding			Literacy Skills Opportunities for	Employability Skills	Assessment Opportunities
161111	Composites	<ul> <li>Components</li> <li>[includes understanding of KEY concepts &amp; subject specific vocab]</li> </ul>	Formal Retrieval [if any]	developing literacy skills	[if any]	Opportunities
НТ3	The particle model	<ul> <li>How do scientists think?</li> <li>States of matter</li> <li>Changes of state</li> <li>Diffusion</li> <li>Water pressure</li> <li>Gas pressure</li> </ul>	Using the particle model to explain the separating techniques	Devising     Hypotheses	<ul> <li>Training and working as a Nano scientist</li> <li>Meteorology</li> </ul>	Assessment Point 3 Class Assessment: Separating techniques, cells, forces, The particle Model and Animal Reproduction
	Energy	<ul><li>Energy transfers and stores</li><li>Fuels</li></ul>	Forms of Energy (KS2)	Energy released by different fuels - Summarising	The race for renewable energy – job roles in the Energy industry	
HT4	Muscles and Bones	<ul> <li>Muscles</li> <li>Breathing</li> <li>The circulatory system</li> <li>The skeleton</li> <li>Drugs</li> </ul>	Organ systems	Forming sentences	Working as a physiotherapist Personal Trainer Sports Scientist Prosthetist	Assessment Point 4 Examination: Separating techniques, cells, forces, The particle Model, Animal Reproduction and Energy
	Atoms, elements and molecules	<ul> <li>The earth's elements</li> <li>Metals and non-metals</li> <li>Chemical reactions (metals and acids – squeaky pop test)</li> <li>Problems with elements</li> </ul>	States of matter How particles behave	Facts and opinion	<ul> <li>Car Engineers</li> <li>Analytical Chemist</li> <li>Geologists</li> <li>Financial Analysts</li> <li>Mining Engineers</li> <li>Chemical Engineers</li> </ul>	

## Year 7 Curriculum Overview [2021-2022] Subject – Science

Autumn Term	Knowledge & Understanding			Literacy Skills  Opportunities for	Employability Skills	Assessment Opportunities
	Composites	<ul> <li>Components</li> <li>[includes understanding of KEY concepts &amp; subject specific vocab]</li> </ul>	Formal Retrieval [if any]	developing literacy skills	[if any]	Opportunities
HT5	Electricity	<ul> <li>Switches and currents</li> <li>Series and parallel circuits</li> <li>Changing the current</li> <li>Using electricity</li> </ul>	Energy forms	Using tables	What is an apprenticeship? • Apprenticeships at the National Grid	Assessment Point 5 Summative Assessment: Separating techniques, cells, forces, The particle Model, Animal Reproduction, Energy, Muscles and bones, Atoms, elements and molecules, electricity Ecosystems
	Ecosystems	<ul><li>Variation</li><li>Adaptations</li><li>Energy Transfers</li></ul>	Adaptations of plants and animals -KS2	Paragraphs	<ul> <li>Environmental Planners</li> <li>Environmental Geneticist</li> <li>Zoologist</li> <li>Veterinary Nurse</li> <li>Wildlife Biologist</li> </ul>	,
HT6	Sound	<ul> <li>Making sounds</li> <li>Moving sounds</li> <li>Detecting sounds</li> <li>Comparing waves</li> </ul>	Practical skills	Remembering	Sound engineer and audiologists	

Acids and Alkalis  Hazards  Indicators  Acidity and Alka  Neutralisation	Reactions – reactants and products	•	Working as an analytical chemist The Chemical Industry – Quality Control Technicians.
--	--	---	---