

Key Stage 3		Autumn			Spring			Summer		
Unit Title	2020-21	Separating Materials	Electricity	Keeping Healthy	Changing Materials	Light and Sound	Green Plants	Grouping and Classifying Materials	Forces and Motion	Variation and Classification
Key areas	2020-21	Rocks and soils, the water cycle	Domestic energy	Nutrition and digestion	Chemical reactions	Waves	Photosynthesis	Physical changes in matter	Energy in matter incl. Energy changes and transfers	Genes, DNA, inheritance and chromosomes
Skills Focus	2020-21	Setting up fair tests incl. dealing with variables	Applying mathematical calculations incl. using graphs	Recording data incl. using graphs	Making predictions	Identifying further questions from results	Recording findings using observational drawings and labelled diagrams	Working with precision, accuracy and repetition	Understanding and using scientific units of measure	Undertake basic data analysis
Key vocabulary	2020-21	Condensation, evaporation	Electricity, gas	Food, digestion	Reversible changes	Light, sound, waves, travel	Green plants, chlorophyll	Irreversible changes	Gravity, buoyancy, energy	Genes, DNA, inheritance
Links to other subjects	2020-21	Geography	ILS/DLS, Maths	Maths, ILS/DLS		Music	Art	Maths, ILS/DLS	Maths	

Key Stage 3		Autumn			Spring			Summer		
Unit Title	2020-21	Grouping and Classifying Materials	Space	Keeping Healthy	Separating Materials	Electricity and Magnetism	Living Things and their Environment	Changing Materials	Light and Sound	Green Plants
Key areas	2020-21	Materials	The Solar System	Health	Mixtures, dissolving, chromatography	Circuits and currents and magnets	Food chains and eco systems	Solids, liquids and gases	Light and dark, shadows and sound	Photosynthesis
Skills Focus	2020-21	Identifying and Classifying	Asking simple questions	Using results to set up further testing	Taking measurements, using apparatus and a range of investigative techniques	Observing health and safety	Identifying scientific evidence used to support an idea	Identifying similarities, differences and changes	Making observations	Set up practical enquiries and comparative fair tests



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by Claire
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October
2022

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SCIENCE LONG TERM PLAN



Key vocabulary		Glass, plastic, metal, wood	Sun, stars, moon, solar system	Healthy, well, unhealthy, fit,	Mix, dissolve, separate	Electricity, circuit, magnet, safety	Predator, prey, food	Solid, liquid, gas	Light, dark, shadow, sound	Green pl food, photosynthesis
Links to other subjects		DT	Careers	PE, PHSE	ILS/DLS	DT, Careers	Maths	ILS/DLS	Art, Music	Maths

Key Stage 3		Autumn			Spring			Summer		
Unit Title		Separating Materials	The Earth and Rocks	Variation and Classification	Changing Materials	Forces and Motion	Keeping Healthy	Grouping and Classifying Materials	Weather	Living Things and their Environment
Key areas	20 24 -2 02 5	The Chemical Industry	Fossils, rocks and soils	Evolution, inheritance and variation	The nature of matter	Forces	The muscular skeletal and respiratory systems	Properties of everyday materials	Weather	Reproduction
Skills Focus		Performing simple tests	Participating in field work	Reporting on findings	Working with precision and accuracy	Recognising and controlling variables	Making predictions	Identifying similarities, differences and changes.	Taking measurements using a range of Scientific apparatus	Labelling diagrams
Key vocabulary		Chemicals, test, plan, variables	Fossils, rocks, soil, erosion	Difference, change, evolution	Particles, atoms	Forces, push, pull, friction	Skeleton, bones, lungs, muscles	Flexible, rigid, hard, soft	Sun, rain, wind, snow, hot, cold	Babies, reproduction



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Key Stage 4		Autumn			Spring			Summer		
Unit Title		Grouping and Classifying Materials	Space	Keeping Healthy	Separating Materials	Electricity and Magnetism	Living Things and their Environment	Changing Materials	Light and Sound	Green Plants
Key areas		Materials	The Solar System	Health	Mixtures, dissolving, chromatography	Circuits and currents and magnets	Food chains and eco systems	Solids, liquids and gases	Light and dark, shadows and sound	Photosynthesis
Skills Focus	20 22 -2 02	Select appropriate techniques and tests	Using an appropriate number of significant figures] in calculations	Explaining every day/technological appliances of science.	Planning an experiment to test a hypothesis/explore a phenomena	Evaluating risk	Interpret data, identify patterns and trends	Apply the cycle of collecting, presenting and analysing data.	Planning tests to explore phenomena	Developing use of scientific vocabulary
Key vocabulary	3	Transparent, translucent, opaque	Planets, light years	Drugs, alcohol, medicine	Chromatography, solution, solute	Circuit, current, magnet	Food chain, food web, eco system	Solids, liquids and gases	Light, sound, darkness, shadow	Chlorophyll, photosynthesis, light
Accreditation			<u>Pre-entry Level-</u> Our Place in Space 106945 <u>Entry Level-</u> Introduction to Earth and Space 112541				<u>Pre-Entry Level-</u> Food Chains 113929 <u>Entry Level-</u> Finding out about Food Chain Links with Assistance 110538	<u>Pre-Entry Level-</u> Science: Changing Materials with Support 113350 <u>Entry Level-</u> Science (Unit 17b):		



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			<u>Level One-</u> Aspects of Earth, Sun and Space 89106				<u>Level One-</u> Food Webs 113931	Changing Materials 91613 <u>Level One-</u> States of Matter and their properties 113594		
Links to other subjects		DT	Maths, Careers	PE, PHSE, Careers	Art	DT, Careers	Maths	Maths	Art, Music	English

Key Stage 4		Autumn			Spring			Summer		
Unit Title		Separating Materials	The Earth and Rocks	Variation and Classification	Changing Materials	Forces and Motion	Keeping Healthy	Grouping and Classifying Materials	Weather	Living Things and their Environment
Key areas	2	The Chemical Industry	Fossils, rocks and soils	Evolution, inheritance and variation	The nature of matter	Forces	The muscular skeletal and respiratory systems	Properties of everyday materials	Weather	Reproduction
Skills Focus	0	Explaining every day uses of Science and Tech'	Carry out experiments appropriately.	Understanding how scientific theory develops over time.	Evaluate methods and suggest improvements	Select best technique, apparatus, material etc. to use in studies.	Present reasoned explanations	Recognise the importance of peer review.	Present observations, translate data from one to another	Considering the power/ limitations of Science incl. ethical issues
Key vocabulary	2	Science, industry, STEM	Fossil, rock, soil, ingenious, metamorphic etc.	Evolution, environment, impact	Solid, liquid, gas	Push, pull, gravity, friction	Muscles, bones, lungs, oxygen	Waterproof, porous	Storm, precipitation, drought	Reproduction, IVF, ethics
Accreditation	4	<u>Pre-entry Level-</u> Science: Separating Solids with Support 113349 <u>Entry Level-</u> Science: Separating Materials 113617					<u>Pre-Entry Level-</u> Keeping Healthy with Assistance 106940 <u>Entry Level-</u> Biology: Introduction to the Systems in the Human Body 72666		<u>Pre-Entry Level-</u> Weather Observation 83859 <u>Entry Level-</u> Weather Recording 88136 <u>Level One-</u> Statistics 108395	



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		<u>Level 1-</u> Introduction to Chemistry- Separating Substances 87212					<u>Level One-</u> Biology: Respiration 113477			
Links to other subjects		Careers, Computing	Humanities	Citizenship, Env Ed, Horticulture		DT	PE, PHSE	DT, Careers	Careers, Geography	RE, PHSE



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