

Curriculum Matrix

Topic overview across all Key Stages in Pathway 2

Faculty: Science and Technology

Subject: Science



YEAR 7	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	<u>Chemistry</u> Materials and their behaviour	<u>Chemistry/Physics</u> Space	<u>Physics</u> Energy and Forces	<u>Physics</u> Electricity and Scientific Enquiry	<u>Biology</u> Structure and function of living organisms	
	→ Health and safety in the lab → The particulate nature of matter → Atoms, elements and compounds → Pure and impure substances	→ Earth and atmosphere → Space physics → Scientific enquiry	→ What is physics? → Introduction to Energy → Kinetic and Potential Energy → Energy Transfers and Transformations → Introduction to Forces	→ Current electricity → Magnetism → Physical changes → Particle model → Energy in matter → Scientific Enquiry	→ Cells and organisation → The skeletal and muscular systems → Nutrition and digestion → Gas exchange systems → Reproduction	→ Health → Photosynthesis → Cellular respiration → Relationships in an ecosystem → Genetics and evolution

	→ Chemical reactions → Energetics → The periodic table		→ Types of Forces → Balanced and Unbalanced Forces → Energy in Food			
YEAR 8	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	<u>Chemistry</u> Materials and their behaviour	<u>Chemistry</u> The environment	<u>Physics</u> Electricity and forces	<u>Physics</u> Scientific enquiry	<u>Biology</u> Structure and function of living organisms	
	→ Health and safety in the lab → The particulate nature of matter → Atoms, elements and compounds → Pure and impure substances	→ Scientific enquiry → Earth and atmosphere → Space physics	→ Energy and types of Energy → Waves (sound and light) → Energy transfer → Heat transfer → Forces in motion → Work done	→ Current electricity → Magnetism → Physical changes → Particle model → Energy in matter → Scientific Enquiry	→ Cells and organisation → The skeletal and muscular systems → Nutrition and digestion → Gas exchange systems → Reproduction	→ Health → Photosynthesis → Cellular respiration → Relationships in an ecosystem → Genetics and evolution

	→ Chemical reactions → The periodic table		→ Friction and resistance → Renewable and Non-Renewable Energy → Measuring Forces			
YEAR 9	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	<u>Chemistry</u> Materials and their behaviour Earth and Atmosphere	<u>Chemistry</u> Space, Energy and Forces	<u>Physics</u> Electricity and Scientific Enquiry	<u>Biology</u> Structure and function of living organisms	OCR Entry Level Certificate: ELC1 Physical OR Chemical Change	ELB3 'Control Systems' OCR ELC12, 'CSI Plus'
	→ Health and safety in the lab → The particulate nature of matter → Atoms, elements and compounds	→ Scientific enquiry → Space physics → Energy and forces → Motion	→ Current Electricity → Measuring Current and Voltage → Resistance → Series and Parallel Circuits in Depth → Static Electricity	→ What is biology? Recap → Introduction to Cells → Tissues, Organs, and Organ Systems → The Skeletal and Muscular Systems		

	→ Pure and impure substances → Chemical reactions → The periodic table → Earth and atmosphere		→ Introduction to Electric Fields → Magnetism RECAP → Electromagnetism in depth → Scientific enquiry	→ The Digestive System → The Circulatory System → The Respiratory System → The Nervous System → The Reproductive System → Inheritance, Chromosomes, DNA, and Genes → Photosynthesis		
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Year 10 and 11 - OCR Entry Level Science - starts year 9 Summer Term till end year 11

OCR Entry Level Science	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	<u>Physics</u>		<u>Biology</u>		<u>Chemistry</u>	
	ELP9 Pushes and Pulls	ELP12 Final Frontiers	OCR Practical Task Continue	ELB9 Creepy Crawlies	ELC2 Acids and Alkalis	ELC5 Novel Materials

Cycle 1 (Year 10/11)	ELP10 Driving Along	ELP5 Alternative Energy	ELB2 Babies	ELB10 Extinction	ELC10 Are You Overreacting?	ELC3 Everything in its Place
	ELP4 Hot Stuff	OCR Practical Task	ELB6 Casualty	ELB11 My Genes		
OCR Entry Level Science Cycle 2 (Year 10/11)	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	<u>Physics</u>		<u>Biology</u>		<u>Chemistry</u>	
	ELP8 Attractive Forces	ELP3 - Medical Rays.	ELB1 Dead or Alive	ELB7 You Can Only Have One Life - Look After It	ELC4 Clean Air and Water.	ELC8 Heavy Metals
	ELP1 Getting the Message	ELP11 Fly Me to the Moon	ELB12 Food Factory	ELB8 - Body Wars	ELC6 Sorting Out	ELC11 How Fast? How Slow?
	ELP2 Full Spectrum			ELB4 Fooling Your Senses	ELC7 Let's Get Together	
YEAR 12/13/14 GCSE Biology Cycle 1	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	Safety in Science/Cell biology Cell structure, Cell division, Transport in cells	Organisation Animal organs and organ systems, Plant tissues and organ systems	Infections and response Communicable diseases, Plant disease,	Bioenergetics Photosynthesis, Respiration	Revision	Revision
YEAR 12/13/14 GCSE Biology Cycle 2	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	Homeostasis and response	Inheritance, variation and evolution	Ecology	Practical revision	Revision/Exam	Revision/Exam

