Long term planning (LTP)

Science

Key Stage	Pathwa0y Class Group	Cycle Rotatio n	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Stage 2 Oak		A	Animals and Teeth	Sound	Lifecycles	Super Scientists	Electricity	Gases, Liquids and Solids
Key Stage 2 Oak		B	Animals and Healthy Eating	Rocks	Science of America	Materials	Electricity	Plants
Key Stage 2 Willow		A	Animals and Nutrition	Rocks	Light	Forces	Tombs, Torches, Timekeepers (Egyptians)	Plants
Key Stage 2 Willow		B	Animals and Teeth	Electricity	Scientists and Inventors – Mary Anning	Plants	Magnets	Minibeast Microdiversity
Key Stage 2 Rowan		A	Being Healthy	Everyday Materials	Plants	Super Scientists	Environment	Habitats
Key Stage 2 Rowan		B	Materials	Lifecycles	Travel and Transport	Senses	Weather and environment	Plants
Key Stage 2 Maple		A	Animals and Humans	Habitats	Everyday Materials	Plants	Super Scientists	Seaside Objects
Key Stage 2 Maple		B	Plants	Materials	My Body	All about animals	Habitats	Minibeast biodiversity
Key Stage 3	Year 7/8 Mixed	B	Science method and safety review	Properties of materials	Earth and space	Light and sound	Electricity and magnetism	Ecology and environment

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Key Stage	Pathwa0y Class Group	Cycle Rotatio n	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Stage 3	Year 7/8 Mixed	A	Introduction to health and safety To spot hazards in the classroom or lab and use basic science equipment safely. They will follow simple instructions to carry out experiments and record what they observe. Students will also practise tidying up by putting equipment back in the right place.	Introduction to forces to identify different types of forces such as push, pull, and gravity, and understand how they affect the shape and motion of objects. They will conduct simple experiments to explore the effects of balanced and unbalanced forces, and observe how friction can slow things down. Students will also investigate how simple machines like ramps and	The human body To name the major parts of the human body and the five senses, understanding how they help us interact with the world. They will explore the basic needs of the body and what helps us stay healthy, like eating well, staying clean, and getting enough rest. Students will also learn how to care for their teeth and know who can help when they are feeling unwell.	Chemical changes to spot signs of a chemical change like colour changes, gas, or temperature changes. They will explore the difference between physical and chemical changes through simple experiments like mixing vinegar and baking soda. Students will also observe and record real-life chemical changes such as cooking and rusting, and talk about why these changes are	Energy and resources To name different forms of energy like heat, light, sound, and movement. They will explore where energy comes from, including renewable and non-renewable sources, and why it's important to save energy. Students will also investigate how energy moves, how it is used in school, and how we can use it more efficiently.	Living things To learn about the characteristics and basic needs of living things, using the MRSGREN model. They will explore different habitats, observe local organisms, and understand how food chains work, including the roles of producers, consumers, and decomposers. Students will also investigate how living things grow and change over time.

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Key Stage	Pathwa0y Class Group	Cycle Rotatio n	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
				levers can make work easier.		important in everyday life.		
Key Stage 3	**Year 9**		Safety in science To identify potential hazards in a classroom or lab setting and handle basic scientific equipment safely and correctly. They will develop practical skills by following simple experiment instructions, using items such as beakers, magnets, and filter paper. Students will also learn to conduct	Materials investigation To identify and understand properties of various materials. To observe and conduct simple experiments related to this. That's life	Forces and motion To explore different types of forces and how they affect the motion of objects. Through hands-on experiments, they will investigate the relationship between force, mass, and movement, as well as measure speed, distance, and the impact of friction. Students will also examine how simple	Plants and living things To identify the basic parts of a plant and understand their functions, along with the essential needs plants require to grow. They will explore the process of photosynthesis in simple terms, examine different plant types and their habitats, and understand the life cycle of a plant from seed	The human body To learn about the human body, including its major parts, how the five senses help us explore the world, and how key systems like the digestive and respiratory systems function. We also explore how a balanced diet, regular exercise, and good hygiene keep us healthy, understanding the role of different food groups and how	Light and sound investigations To understand the properties of sound and light including how they travel. To observe and conduct simple experiments related to this.

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Key Stage	Pathwa0y Class Group	Cycle Rotatio n	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
			experiments, record their results clearly, and tidy up by returning equipment to the correct place.		machines like levers and ramps can make tasks easier by reducing the effort needed.	to maturity. Through hands-on planting and observation activities, students will conduct experiments to record how plants grow and change over time.	the body reacts to activity. Through simple experiments, we observe changes like pulse rate, record our results, and present them in graphs to help explain what we discovered.	
Key Stage 4	**E1-3 WJC Year 10/11 B**	B	Science and the universe	Making useful compounds	Human body	Working with electrical circuits	Variation and adaptation **Missed unit catch up.**	
Key Stage 4	**E1-3 WJC Year 10/11 A**	A	Health and safety	Intro to animal care	The science of light and sound	Chemical products in the home	Energy in the home and workplace	Science and the plant world
Key Stage 4	**Year 10/11** B	B	First half term: Showing an awareness of light and shadows (WTE1) Second half term: Plant identification: introduction (E1)		First half term: Recognising different textures (E1) Second half term: Energy in the home and workplace (E1) ASDAN		First half term: Space and the solar system (WTE1) Second half term: Soil identification and planting (WTE1) ASDAN	

Commented [AK1]: The main pathways we need to have separate plans for are red and green.
Yellow should be used for GCSE level content but may not be relevant.

Commented [AK2]: The main pathways we need to have separate plans for are red and green.
Yellow should be used for GCSE level content but may not be relevant.

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Key Stage	Pathwa0y Class Group	Cycle Rotatio n	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
			ASDAN Lifeskills unit Challenge ref: 1678 and Challenge ref: 3227 Assessment method of witness statements and student work		Lifeskills unit Challenge ref 4797 and 5474 Assessment method of witness statements and student work		Lifeskills unit Challenge ref 4203 and 3200 Assessment method of witness statements and student work	
Key Stage 4	**Year 10/11 A**	A	First half term: Push Pull and twist (WTE1) Second half term: Introduction to solid, Liquid and gas (E1) **ASDAN Lifeskills unit Challenge ref 4967 and 5023** **Assessment method of witness statements and student work**		First half term: Exploring forces - a sensory approach (WTE1) Second half term: Science and the Human body (E1) **ASDAN Lifeskills unit Challenge ref 4968 and 5551** **Assessment method of witness statements and student work**		First half term: Using electrical objects safely (WTE1) Second half term: Making a bug hotel and minibeasts (WTE1) ASDAN Lifeskills unit Challenge ref 5521 and 4626 Assessment method of witness statements and student work	

Aspire Students reencounter topics deepening understanding each time SEMH and SEND Provision, 10 students Mixed Year 7-11 Green and Red Pathway.

Science OCR Entry Level 1-3 Entry Level - Science - R483 - OCR (Two-Year Cycle)

Biology: **Dead or Alive** Chemistry: **Physical or Chemical Change** Physics: **Getting the Message**	Biology: **Babies** (Reproduction) Chemistry: **Acids and Alkalis** Physics: **Full Spectrum**	Biology: **Control Systems** Chemistry: **Everything in Its Place** Physics: **Medical Rays**	Biology: **Fooling Your Senses** Chemistry: **Clean Air and Water** Physics: **Hot Stuff**	Biology: **Gasping for Breath** Chemistry: **Novel Materials** Physics: **Alternative Energy**	Biology: Casualty Chemistry: **Sorting Out** Physics: **Nuclear Power**
Biology: **You Only Have One Life – Look After It!** Chemistry: **Let's Get Together** Physics: **Our Electricity Supply**	Biology: **Body Wars** Chemistry: **Heavy Metal** Physics: **Attractive Forces**	Biology: **Creepy Crawlies** Chemistry: **Fuels** Physics: **Pushes and Pulls**	Biology: **Extinction** Chemistry: **Are You Overreacting?** Physics: **Driving Along**	Biology: **My Genes** Chemistry: **How Fast? How Slow?** Physics: **Fly Me to the Moon**	Biology: **Food Factory** Chemistry: **CSI Plus** Physics: **Final Frontiers**