Curriculum Overview – Science

All Saints' Curriculum Intent Statement:

Pupils at All Saints have access to a world class curriculum – one which is broad, balanced, challenging and gives pupils a better chance of success than any other curriculum in the country.

Subject Curriculum Intent Statement:

The curriculum is much more than just lessons. It includes the ethos, attitudes and relationships which create the high-quality life in all our schools. Our aim is to provide a broad, balanced and rigorous curriculum that meets the needs and aspirations of every young person and leaves them well prepared for their future.

1. The curriculum has been designed following a Spaced Practice model where content is revisited on a regular basis to boost memory. It also incorporates interleaving techniques where strong links are made between Biology, Chemistry and Physics to allow the students to develop stronger and deeper connections between the different concepts.

2. Empower students to acquire, demonstrate, articulate and value knowledge and skills that will support them as life-long learners, and to prepare and motivate our students for a rapidly changing world by instilling in them critical thinking skills.

3. Develop a range of activities which encourage enquiry through practical work, enhanced by mathematical processes

Please note, all subject overviews may change based on the needs of pupils in each year group. This is indicative content only.

	Cycle 1	Cycle 2	Cycle 3
	Energy stores transfers;Energy resources; Particle theory; States of matter; Life processes	Reproduction and puberty; Forces; Separating mixtures;Organ Systems; Digestion and enzymes	Electricity; Magnetism; Chemical reactions; Acids and Alkalis; Photosynthesis; Sound and light
	Big Ideas: Energy, Matter, Organisms,	**Big ideas: Organisms, Forces, Matter, Genes**	**Big Ideas: Electromagnets, Reactions, Ecosystems, Waves**
	Assessment: Online topic quizzes and Summative	Assessment: Online topic quizzes and Summative	Assessment: Cumulative assessment of all topics

	Cycle Assessment	Cycle Assessment	taught in KS3 so far
Year 8	Cycle 4	Cycle 5	Cycle 6
	Wave Properties; Electromagnetic spectrum; Atoms and the periodic Table; Rates of reaction; Transporting substances; DNA	Circuits; Atomic bonding; inheritance; evolution	Density; Resistance and electrical safety; Solar system; Making salts; Motion

	Big ideas: **Waves, Matter, Chemical reactions, Genes**	**Big ideas: Electromagnets; Matter; Genes**	**Big Ideas: Forces; electromagnets; Chemical reactions**
	Assessment: Online topic quizzes and Summative Cycle Assessment	Assessment: Online topic quizzes and Summative Cycle Assessment	Assessment: Cumulative assessment of all topics taught in KS3 so far
	Cycle 7	Cycle 8	Cycle 9
	Cell Structure; Transport in Cells, Atomic structure; Periodic table	Energy store; Energy resources; structure and bonding; Organisation	Electrical Circuits; electricity in the home; Maths in Chemistry; Photosynthesis; Respiration
	Big ideas: Atoms, Cells,	**Big Ideas: Energy, Matter, Organisation**	**Big Ideas: Electromagnets, Reactions, Ecosystems**
	Assessment: Online topic quizzes and Summative Cycle Assessment	Assessment: Online topic quizzes and Summative Cycle Assessment	Assessment: Cumulative assessment of all topics taught in KS3 so far
	Cycle 10	Cycle 11	Cycle 12

	Reactivity Series; Acids and alkali, Particle Model of Matter, Health and Disease; Electrolysis	Ionizing radiation, Endo and exothermic reactions; Homeostasis; Chemistry of the Atmosphere	Using resources, Forces; Inheritance and evolution; Hydrocarbons
	Big Ideas: Chemical reactions, Energy, Organisms	**Big Ideas: Matter, Chemical reactions, Organisms, Chemical reactions**	**Big Ideas: Chemical reactions, Genes,**
	Assessment: Online topic quizzes and Summative Cycle Assessment	Assessment: Online topic quizzes and Summative Cycle Assessment	Assessment: AQA Trilogy Paper 1 Mock exam
Year 11	Cycle 13	Cycle 14	
	Chemical analysis; Waves; ecology; Rates of reaction; electromagnets	**Revision of AQA Trilogy GCSE**	
	Big ideas: Chemical reactions, Waves, Electromagnets		
	Assessment: AQA Trilogy Mock exam	Assessment: AQA Trilogy Mock exam	