



Formal Groups curriculum summary and overview

Date: academic year 2023-24

Subject Title: Science

Intent:

The intent of Science at STFCH is to help learners develop scientific knowledge that builds a sense of excitement and curiosity about natural phenomena around them. The mixture of substantive and disciplinary knowledge gathered by students will enable them to scientifically reason the world around them. Students using methods of scientific enquiry will enable learners to build further problem-solving skills to help with the preparation for adulthood. Students will develop an understanding of the importance of science in our society and solving global problems that can link to their own life skills.

Implementation:

Implementation of our intent is carried out by providing learners with resources to work at the national curriculum. Learners are guided to develop their key vocabulary throughout key stages working on sequential programs of study. Their basic knowledge is built on to give them the relevant knowledge to help explain the world around them, building on working scientifically. Delivery is organised across ability-based teaching and learning groups in each key stage. This allows work to be differentiated to meet ability ranges with access to staffing ratios that offer small group and individual 1:1 support when needed. Staff are experienced and follow appropriate professional development opportunities to support delivery models. Each subject follows a curriculum map that highlights the content and progression. Assessment is both formative and summative to inform next steps in learning and summarising attainment and progress. Some students will also access enhanced personalised timetables to meet specific additional needs if appropriate.

Impact:

Students will learn to become more independent and develop skills that they can take with them throughout life. They will learn about their bodies, the environment and how the world works around them. Learners will take a scientific approach to Biological, Chemical and Physical concepts related to their lives, that they can lead and investigative. Learners will show creative thinking and be able to solve problems that they might encounter on a day-to-day basis. Learners will go on to achieve either an accredited AQA Entry Level qualification in Science or an AQA unit award in KS4.

Key Stage 3 (Y7, Y8 & Y9)	Year A (2022/23)	Year B (2023/24)	Year C (2024/25)
Autumn 1	The skeletal and muscular systems	Reproduction in Plants	cells and organisation (Prior learning: from Y3 KS2 'humans health & nutrition')
		Photosynthesis	Relationships in an ecosystem (Prior learning: from Y5 KS2 'living things & their habitats')
Autumn 2	Chemical reactions (Prior learning: from y5 material changes)	Atoms, elements and compounds The Periodic Table	The particulate nature of matter (Prior learning: from Y5 KS2 'properties & changes of materials')
Spring 1	Energy	Matter	Motion & Forces (Prior learning: from Y3 KS2 'forces & magnets')
Spring 2	Reproduction in Humans	Nutrition and digestion	Gas exchange systems (Prior learning: from Y6 KS2 'animals inc. humans: exercise, lifestyle and circulatory system')
	Inheritance, chromosomes, DNA and genes	Health (drugs)	Cellular respiration (Prior learning: from Y6 KS2 'animals inc. humans: exercise, lifestyle and circulatory system')
Summer 1	Earth and atmosphere	Materials	Pure and impure substances (Prior learning: from Y5 KS2 'properties & changes of materials e.g. mixing, dissolving etc')
		Energetics	
Summer 2	Electricity & Electromagnetism	Space Physics	Waves (Prior learning: from Y4 KS2 'sound')

Key Stage 4 (Y10 & Y11)	Year A (2023/24)	Year B (2024/25)
Autumn 1	Biology-The Human Body AQA Single & Double award	Biology- Environment Evolution and Inheritance AQA Single & Double award
Autumn 2	Biology- The Human body (continued)	Biology- Environment Evolution and Inheritance (continued)
Spring 1	Chemistry- Elements, Mixtures and Compounds AQA Single & Double award	Chemistry-Chemistry in our World AQA Single & Double award
Spring 2	Chemistry- Elements, Mixtures and Compounds (continued)	Chemistry-Chemistry in our World (continued)
Summer 1	Physics- Energy, Forces, and the Structure of Matter AQA Single & Double award	Physics-Electricity, Magnetism and Waves AQA Single & Double award
Summer 2	Physics- Energy, Forces, and the Structure of Matter (continued)	Physics-Electricity, Magnetism and Waves (continued)

