

## St Gabriels Curriculum Map: Science



Intent: Pupils at St Gabriels Roman Carbolic High School achieve well and enjoy Science. High standards of teaching emblue students, encourage a positive attitude to learning and develop judge intentises for learning and develop pupils in the students of teaching emblus as more intentional preciation of the contribution that Science makes to society. We encourage a positive attitude towards Science and new technology, and foster a critical appreciation of the contribution that Science makes to society. We encourage a positive attitude to learning and develop pupils in the students science and new technology, and foster a critical appreciation of the contribution that Science makes to society. We encourage a positive attitude towards Science and new technology, and foster a critical appreciation of the contribution that Science makes to society. We encourage all students to encourage a positive attitude to learning and develop pupils in the science students. Well peuping preciation and critical thinking skills. For some students, studying the sciences provides the platform for more advanced studies, establishing the basis for a wide range of careers. For others, it will be their last formal study of subjects that provide the foundations for understanding the natural worls and will enhance their lives in an increasingly technological society. Science is changing our lives and is vital to the world's future prosperity, and all students should be helped to appreciate the achievements of science. They should be helped to appreciate the achievements of science in showing how the complex and diverse phenomena of the natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl can be described in terms of a natural worl

KS2		Y7		Y8	Y9	KS3	Y10	Y11	KS4	KS5	Careers
	Term	Unit Unit title	Unit	Unit title Unit	Unit title		Unit	Unit			
Declarative knowledge - In Science, the national curriculum is very factual based. The key knowledge gained from the year 6 program of study focuses on living things and their habitats, animals including humans, evolution and inheritance, light, electricity, or for earnight pupils will be expected to know how living things are classified into broad of the control	Autumn	INTRODUCTION TO SCIENCE  THE BUILDING BLOCKS OF LIFE - Cells, Microscopes, Unicellular organisms (skeletal system they system they REACTIONS AND MATER - Physical and chemical reactions, reactants and products, observations of	B8.1	DIGESTIVE SYSTEMS - Digestion, Enzymes and Health effects, nutrition (diet and imbalances, starvation)  B9.1  ELEMENTS, MIXTURES AND COMPOUNDS -	PLANTS AND PHOTOSYNTHESIS - Photosynthesis, Stomata, Basics of plant dissue, plant reproduction ENVIRONMENTAL CHEMISTRY - Acid rain, ozone layer,	Declarative knowledge - In KS3 in Science the prinicipal focus is to	BIOLOGY Block 1 - CELL BIOLOGY AND ORGANISATION	BIOLOGY Block 4 - INHERITANCE, VARIATION and EVOLUTION	Declarative knowledge - In KS4 pupils will be taught how the complex and disress phenomena of the natural world can be described in terms of a number of key diedes relating to the science which are inter-linked, and which are of universal application. These key ideas include the inter-linked, and which are of universal application. These key ideas include the use of conceptual models and theories to make sense of the observed diversity of each of the company of the c	Triple Science curriculum are pre-cursors for the study of A level Science. The examination board chosen (AQA) is deemed by the local colleges to be their preferred board. Children not destined for A level Science have also taken up Vocational qualifications in Science and engineering at post-16.  A level Science have also taken up Vocational qualifications in a science subject concurage students to *develop presental knowledge and understanding of different areas of the subject and how they relate to each other *develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods develop competence and confidence in a variety of practical, mathematical and problem solving an interest in further study and careers associated with the subject *understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society. As a consequence the flow from our rKS consequence the flow from our rKS	few examples are shown here. *Analytical Chemist  r
		C7.1 reactions  THE PARTICLES THAT MAKE US - particle diagrams, density, pressure	C8.1	MAGNETISM - Magnetic Poles, Magnetic Fields,		develop a deeper understanding of a range of scientific ideas in the subject disciplines of biology, chemistry and physics. Pupils should see the connections between these subject areas. Examples of these big ideas are links between structure	CHEMISTRY - Block 1 Matter and Bonding	PHYSICS Block 4 - Forces  CHEMISTRY block 4 - Chemical analysis/ Earth's atmosphere			
	Spring	HUMAN REPRODUCTION - Human reproduction,  87.2 Menstrual cycle, Development.	B8.2	OUR LUNGS - Breathing, Gas exchange, Intro into diffusion, Smoking (recreational drugs) and cancer 89.2		and function in living organisms, the particulate model as the key to understanding the properties and interactions of matter in all its form, and the resources and means of transfer of energy as key determinants of all of these	BIOLOGY Block 2 - HEALTHY LIFESTYLE	BIOLOGY Block 5 - HOMEOSTASIS			
		C7.2 reactions, indicators, hazards of acids and alkalis  ENERGY CHANGES - Energy stores, Energy  P7.2 Transfers, Energy Resources, Energy in the Home	C8.2	PATTERNS IN THE PERIODIC TABLE - history of the periodic table, reactivity, displacement reactions   9.2  HOW WE SEE AND HEAR - Types of Wave, Wave Properties, Light, Sound.  P9.2	ELECTRICAL CALCULATIONS - Magnetics Fields,	interactions.  Procedural knowledge - In KS3 pupils will be developing their experimental skills throughout their experiments. They will be expected to pay attention to objectivity and concern for accuracy, precision, repeatability and reproducibility,	PHYSICS Bock 2 - Electricity  CHEMISTRY - Block 2 - Quantitative Chemistry/ Chemical change	PHYSICS Block 5 - Energy and Magnestism  CHEMISTRY Block 5 - The Earth's resources and using our resources			
		THE WORLD OF BACTERIA - Microbes, Types and Structures, disease	B8.3	ECOLOGY - Food chains, Pyramids of mass, Bioaccumulation, Trophic levels 89.3	CHEMICAL REACTIONS - conservation of mass,	they will make predictions a nd select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables.	BIOLOGY Block 3 - PLANTS AND ECOLOGY				
	35	C7.3 chromatography, distillation  WHAT ARE FORCES - Contact/Non-Contact Forces, P7.3 Resultant Forces, Effect of Forces	C8.3	COMBUSTION - fuels, crude oil, changing atmosphere C9.3  INTRODUCTION TO ELECTRICITY - Circuit Symbols, Current, Voltage, Resistance, Electrical Circuits. P9.3	oxidation, decomposition, reactions with metals, rates of reaction  SPACE PHYSICS - satellites, solar system and universe, stars		PHYSICS Block 3 - Particle model and atomic structure  CHEMISTRY Block 3 - Energy changes, Rate of Reaction and Organic chemistry				