

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11	Focus:	Earth's atmosphere	Using Resources – Extended for triple Science Students	Revision Atomic Structure & Periodic Table Structure & Bonding	Required practical week & revision	Revision	
	Assessment:	Earth's atmosphere test	Using resources test Pixl mock 1		Pixl mock 2		

SMSC - Social - practical work, demonstrations and teamwork, considering the safety of others. Moral – discussions of how global warming has affected humans, animals and ecosystems and our responsibility to protect it in the future. Spiritual – developing an understanding of things bigger and out of our reach, eg gases in the atmosphere. Cultural – scientists from different cultures and how they contributed to the development of our understanding of the Earth's atmosphere.

Careers - Earth's atmosphere- climate change researcher, meteorologist, agriculture. Using resources - Product development, design, architecture.

Enrichment - British Science Week. Competitions. CERN Trip. Science Live!

British Values - Areas that encourage conversation regarding British Values include: understanding differences between different countries approaches to tackling climate change, and a tolerance of the laws and legislation in the UK regarding this.

Year 10	Focus:	Quantitative chemistry – Extended for triple Science students	Chemical changes	Energy changes	Rates of reaction	Organic chemistry – Extended for triple Science students	Chemical analysis- Extended for triple Science students
	Assessment:	Quantitative chemistry test	Chemical changes test	Energy changes test	Rates of reaction test	Organic chemistry test	Chemical analysis test End of year 10 exam

SMSC - Social - practical work, demonstrations and teamwork, considering the safety of others. Moral – discussions of how chemical reactions can be both useful and harmful and our responsibility to ensure that they are used safely. Spiritual – developing an understanding of things so small that we cannot see yet can observe the effects of. Cultural – scientists from different cultures and how they contributed to the understanding of chemical reactions throughout history.

Careers - Quantitative chemistry – Forensic analyst. Chemical changes – Materials chemist, construction. Energy changes – Pharmacologist. Rates of reactions – food engineer. Organic chemistry – Veterinary nurse. Chemical analysis - transport developer.

Enrichment - British Science Week. Competitions. CERN Trip. Science Live!

British Values - Areas that encourage conversation regarding British Values include understanding and being respectful of the fact that chemical reactions can be both useful and harmful.

Focus

Matter, Particles, Structure and Bonding

Applied Chemistry

Exams & Revision

Chemical Reactions

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9	Focus:	Introduction to GCSE Atomic structure & the periodic table	Atomic structure & The periodic table	Atomic structure & The periodic table	Structure and bonding – ionic bonding	Structure and bonding – covalent bonding	Structure and bonding – metallic bonding Drugs & Vaping Awareness
	Assessment:	Atomic structure & the periodic table initial test 1	Atomic structure & The periodic table interim test 2	Atomic structure & The periodic table final test 3	Structure and bonding initial test 1	Structure and bonding interim test 2	Structure and bonding final test 3 End of Year 9 exam
<p>SMSC - Social - practical work, demonstrations and teamwork, considering the safety of others. Moral – discussions of how elements can be both useful and harmful and our responsibility to ensure that that are used safely. Spiritual – developing an understanding of things so small that we cannot see yet can observe the effects of. Cultural – scientists from different cultures and how they contributed to the development of the periodic table. Careers - Atomic structure & Periodic table – Pharmacist / Chemical engineer / Forensic analyst. Structure and bonding – materials chemistry research / chemical scientist. Enrichment - Stem Club, Teen Tech, British Science Week, Competitions, Medical Mavericks, CERN Trip. British Values - Areas that encourage conversation regarding British Values include: democracy and British Law when discussing chemistry techniques used in criminal cases for example, chromatography.</p>							
Year 8	Focus:	Matter 2 – Elements and the Periodic Table	Matter 2	Matter 2	Reactions 2		Earth 2 – Climate and the earths resources
	Assessment:	Matter 2 test	Reactions 2 test	Matter 2 Test	Reactions 2 Test		Earth 2 Test
<p>SMSC - Social - practical work, demonstrations and teamwork, considering the safety of others. Safe use of household items, e.g Acids and alkalis. Use of elements in everyday life. Moral – how science can be both harmful and useful, e.g. Gas pressure, rock cycle. How neutralisation is used to correct acid rain in lakes and soil in agriculture. Spiritual – the beauty of natural objects, e.g. Bolivia salt deserts, the solar system. The wonder of the extent of geological time, e.g. Different rocks and the rock cycle. Cultural – how cultural differences influence the use of science, e.g. Filtration to make water safe to drink. Covid tests and the use in forensic methods How different countries cope with natural disasters, eg. Earthquakes/volcanoes. Careers - Matter – Construction / technology developer / forensic scientist. Reactions – Military / Firework designer / agriculture. Earth – Geologist / Palaeontologist / Astronomer. Enrichment - Stem Club, Teen Tech, British Science Week, Competitions. British Values - In chemistry, some areas that encourage conversation regarding British Values include: chemistry used in tackling crime, safety of acids and alkalis, evolution of Earth's structure through time and respect for others' beliefs in regard to the Earth and Solar System.</p>							
Year 7	Focus:	Enquiry Processes	Matter 1	Reactions 1			Earth 1 – Earth structure
	Assessment:	Enquiry Processes Test	Matter 1 Test	Reactions 1 Test			Earth 1 test
<p>SMSC - Social - practical work, demonstrations and teamwork, considering the safety of others. Safe use of household items, e.g Acids and alkalis. Use of elements in everyday life. Moral – how science can be both harmful and useful, e.g. Gas pressure, rock cycle. How neutralisation is used to correct acid rain in lakes and soil in agriculture. Spiritual – the beauty of natural objects, e.g. Bolivia salt deserts, the solar system. The wonder of the extent of geological time, e.g. Different rocks and the rock cycle. Cultural – how cultural differences influence the use of science, e.g. Filtration to make water safe to drink. Covid tests and the use in forensic methods. How different countries cope with natural disasters, eg. Earthquakes/volcanoes. Careers - Matter – Construction / technology developer / forensic scientist. Reactions – Military / Firework designer / agriculture. Earth – Geologist / Palaeontologist / Astronomer. Enrichment - Stem Club, Teen Tech, British Science Week, Competitions British Values - In chemistry, some areas that encourage conversation regarding British Values include: chemistry used in tackling crime, safety of acids and alkalis, evolution of Earth's structure through time and respect for others' beliefs in regard to the Earth and Solar System.</p>							

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Chemical Reactions