

	Enrichment (Ethos, Values and Community)	Link with PE, maybe do some PE sessions <i>LORIC- Organisation</i> <i>Opportunities to organise a diet and fitness programme for people with particular health needs/diet deficiencies.</i>	Teaching Primary schools about health and fitness <i>LORIC- Communication</i> <i>Create leaflets/posters on the dangers of smoking and alcohol. Give a presentation to primary school pupils.</i>	Field visits NYDA <i>LORIC- Leadership</i> <i>Leadership skills shown during practical work, testing for starch in leaves experiment.</i>	RSPB reps visit Ecosystem garden <i>LORIC- Initiative</i> <i>Organising initiatives for saving the ecosystem</i>	Garden BHS <i>LORIC- Organisation</i> <i>Opportunity to assist with growing plants for the school garden.</i>	Links with farming <i>LORIC- Resilience</i> <i>Taking responsibility over the long term survival of plants grown for the school garden</i>
Year 9	Unit(s):	B7- Genetics	B7- Genetics	B8- Infection	B8- Infection	GCSE - cells	GCSE - cells
	Key skills:	Debate	Justifying answers Providing evidence	Practical skills	Explaining answers	Maths skills	Revision skills
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment (Careers and next steps)	Careers - genetic engineer Citizenship link <i>LORIC- Organisation</i> <i>organisation of processes of mitosis and transcription and translation</i>	Research visits Links with GCSE genetics unit Link with RS <i>LORIC- Communication</i> <i>Debates around STEM cell research and genetic testing</i>	Careers - Research scientist Links with history - discovery of antibiotics and vaccines <i>LORIC- Leadership</i> <i>Leadership - run a group task</i>	Links with GCSE infection unit PSHE link with STIs <i>LORIC- Initiative</i> <i>Initiative for protecting health campaigns</i>	Link with ART building model cells <i>LORIC- Organisation</i> <i>Organising notes and revision ideas to get ready for GCSE</i>	<i>LORIC- Resilience</i> <i>Preparation for first end of topic test at GCSE. Consolidation of year 9 work. Preparation for year 10</i>

Subject: KS3 Chemistry

Key Stage 3:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Unit(s):	Introductory unit	C1- Particles	C2- Atoms, elements	C2- Atoms, elements	C4- Acids and alkalis	C4- Acids and alkalis
	Key skills:	Health and safety Recording data	Scientific drawing Modelling	IT Use of symbols	Discussion of theories	Practical skills	Maths skills
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment (Link with KS2)	Visit to a working lab Visiting health and safety advisor <i>LORIC- Organisation</i> <i>Pupils can organise their own practicals and complete methods for others to follow</i>	Drama link for movement of particles <i>LORIC- Communication</i> <i>Developing discussion skills through using Kagan for key questions in lessons</i>	Drama link for parts of the atom <i>LORIC- Leadership</i> <i>Leadership could be developed by giving pupils different scientists to research and then teach their groups about the discoveries of this scientist</i>	History link - discover of the atom <i>LORIC- Initiative</i> <i>Research activities where pupils need to take initiative to create information sheets about theories</i>	Link with industry <i>LORIC- Organisation</i> <i>Organisation through a lot of practical working in this topic</i>	Working with primary schools during 2 day visit for year 6 <i>LORIC- Resilience</i> <i>Consolidation of year 7 work. Revise for end of topic test. Preparation for year 8</i>
Year 8	Unit(s):	C3- Chemical reactions	C3- Chemical reactions	C5- Periodic table	C5- Periodic table	C6- Separation techniques	C6- Separation techniques
	Key skills:	Practical skills	Scientific drawing	Reviewing scientific sources	Compare and contrast	Practical skills Recording data	Interpreting data
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment (Ethos, Values and Community)	Health and safety visit <i>LORIC- Organisation</i> <i>Organisation skills used to design investigations</i>	Link with everyday acids and alkalis and their uses <i>LORIC- Communication</i> <i>Make a safety presentation for the uses of acids and present to the class</i>	Link with history development of periodic table <i>LORIC- Leadership</i> <i>Leadership - run a group task</i>	STEM ambassadors visit and careers visits <i>LORIC- Initiative</i> <i>Organises a science day/fair for the school and maybe primary schools/parent</i>	STEM club <i>LORIC- Organisation</i> <i>Organisation through a lot of practical working in this topic</i>	Working with primary schools during 2 day visit for year 6 <i>LORIC- Resilience</i> <i>Reviewing I can statements and using them to focus revision</i>

Year 9	Unit(s):	C7-The earth	C7-The earth	C8-Materials	C8-Materials	GCSE- Atomic structure	GCSE- Atomic structure
	Key skills:	Observation skills	Interpreting results	Predicting results	Observation skills	Reviewing sources	Revision skills
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment (Careers and next steps)	Link with geology <i>LORIC- Organisation Organisation skills used to sequence events which lead to development of the earth</i>	Visit to quarry <i>LORIC- Communication Wire a thank you letter to the quarry if visited for allowing them to visit and</i>	Link with industry <i>LORIC- Leadership Leadership opportunities during practical work</i>	LINK with DT and material use unit <i>LORIC- Initiative Make revision cards to help get ready for GCSE</i>	History link of theories <i>LORIC- Organisation Organising notes and revision ideas to get ready for GCSE</i>	Drama link for parts of the atom <i>LORIC- Resilience Preparation for first end of topic test at GCSE. Consolidation of year 9 work. Preparation for year 10</i>

Subject: KS3 Physics

Key Stage 3:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Unit(s):	P1- Forces	P1- Forces	P2-Electromagnetism	P2-Electromagnetism	P3- Space	P3-Space
	Key skills:	Scientific predictions Graph drawing Maths skills	Data processing Maths skills	Practical skills Application of knowledge	Scientific drawing	Analysing theories	Evaluating evidence
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment (Link with KS2)	Marine engineering workshop Links with maths <i>LORIC- Organisation</i> <i>Pupils can use their organisational skills in the workshop designing and making a boat.</i>	Links with KS2 forces of push and pull Link with DT <i>LORIC- Communication</i> <i>Pupils can work together to design and make parachutes.</i>	Link to magnetism and static electric from the forces topic. <i>LORIC- Leadership</i> <i>Leadership opportunities during practical work.</i>	Links with magnets from KS2 <i>LORIC- Initiative</i> <i>Opportunity for pupils to use skills learned to work out how electromagnets are used in bells/door locks/relays.</i>	Astronomy club <i>LORIC- Organisation</i> <i>Space class project - design and create a display for the classroom.</i>	Observatory visit <i>LORIC- Resilience</i> <i>Consolidation of year 7 work. Revise for end of topic test. Preparation for year 8.</i>
Year 8	Unit(s):	P4-Energy	P4-Energy	P5- Current electricity	P6-Electricity in the home	P7- Matter	P8- Energy changes
	Key skills:	Maths skills Practical skills	Ethics	Maths skills Scientific drawing	Application of knowledge	Maths skills Practical work	Maths skills Application of knowledge
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment (Ethos, Values and Community)	Link with citizenship and DT <i>LORIC- Organisation</i> <i>Organisation skills used to design investigations</i>	Energiser workshop <i>LORIC- Communication</i> <i>Renewable energy debate</i>	Some pupils could get involved with teaching year 6 during visits Links with maths <i>LORIC- Leadership</i> <i>linked with year 6 visit mentioned above</i>	Visiting Electrical engineer <i>LORIC- Initiative</i> <i>Take responsibility for helping reduce electrical use in your home</i>	Link with Biology - the eye Links with GCSE waves <i>LORIC- Organisation</i> <i>Organisation of teams while doing</i>	Link with Biology - ear Links with maths for calculations <i>LORIC- Resilience</i> <i>Reviewing I can statements and using</i>

						<i>investigations or required practicals</i>	<i>them to focus revision</i>
Year 9	Unit(s):	P9-Waves	P9-Waves	P10-Motion	P10-Motion	GCSE Energy	GCSE Energy
	Key skills:	Health and safety	Practical skills	Graph interpretation Practical skills	Observation skills	Ethics	Maths skills Practicals skills
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment	Links with everyday life <i>LORIC- Organisation Opportunities for organisation skills during practical activities.</i>	Links to Chemistry <i>LORIC- Communication Communication skills demonstrated solving maths problems - equations.</i>	Formula one/motor industry/ nissan factory visit <i>LORIC- Leadership Leadership opportunities during practical work</i>	Links with GCSE forces <i>LORIC- Initiative Make revision cards to help get ready for GCSE</i>	Link with citizenship and DT <i>LORIC- Organisation Organising notes and revision ideas to get ready for GCSE</i>	Visit to or from an energy company <i>LORIC- Resilience Preparation for first end of topic test at GCSE. Consolidation of year 9 work. Preparation for year 10.</i>

Curriculum Map

Subject: Triple science Biology: GCSE AQA		Exam board: AQA	Quan code: 601/8752/9	Entry code: 8461 foundation or higher	Unit codes: 8461/1, 8461/2		
Key Stage 4:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	Unit(s):	Organisation	Bioenergetics	Infection and response	Infection and response	Homeostasis and response	Homeostasis and response
	Key skills:	Application of knowledge	Maths skills	Practical skills Analysis of data	Using statistics	Interpreting data and diagrams/models of coordination and control systems.	Application of knowledge
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment	Enzymes - stretch & challenge opportunity to link to enzymes from archae bacteria. PCR used in DNA fingerprinting and genome analysis. <i>LORIC- Organisation- Organisation of enzymes interacting with particular substrates.</i>	Link with diffusion and gas exchange surfaces B1.6. <i>LORIC- Communication Solving maths problems, interpreting limiting factors for photosynthesis graphs.</i>	Link with history - discovery of antibiotics and vaccines Maths skills-correlations, look at maths skills MS2g. <i>LORIC- Leadership Opportunities to show leadership through peer support during practical work.</i>	Healthy living link Current affairs discussion-Coronavirus. Good opportunity to put the spread of disease, vaccination, drug testing into context. <i>LORIC- Initiative. Initiative skills can be highlighted in the way that people had to respond to the restrictions put in place during the pandemic, being responsible for their own health and the safety of others.</i>	Diabetes - link to non-communicable diseases. Link with Physics - the eye, refraction of light. <i>LORIC- Organisation Lots of opportunities in this topic for organising the different stages of coordination and control systems into the correct sequence.</i>	Sexual health link- STI's Link Ethics discussion - fertility treatments. <i>LORIC- Resilience Consolidation of year 10 topics. Preparation for year 11. Revision for end of topic test.</i>
Year 11	Unit(s):	Ecology	Ecology	Inheritance	Inheritance	Exam time	Exam time
	Key skills:	Application of knowledge.	Ethical debate	Ethical debate	Application of knowledge.		
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework		

	Enrichment	Link to mitosis B2.1 <i>LORIC- Organisation</i> <i>Opportunities for organisational skills sequencing stages of meiosis and life cycle of malaria parasite</i>	Visit to ecology park. <i>LORIC- Communication</i> <i>Good opportunity for debate about embryo screening.</i>	Link- antibiotic resistant bacteria by natural selection B15.8 <i>LORIC- Leadership</i> <i>lead a debate on Genetic engineering</i>	Link to carbon dioxide in climate change topics B18.1, B18.4, B18.5. <i>LORIC- Resilience</i> <i>Consolidation of year 11 topics.</i> <i>Preparation for GCSE exam.</i>		
End of course external assessment: Year 10 mock on topics covered so far				End of course external assessment: Paper 1- Topics 1–4: Cell biology; Organisation; Infection and response; and Bioenergetics. (1hr 45) 50% Paper 2 - Topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology. (1hr 45) 50% Higher and foundation options for exam papers			

Curriculum Map

Subject: Triple science Chemistry: GCSE AQA		Exam board: AQA	Quan code: 601/8757/8	Entry code: 8462 foundation or higher	Unit codes: 8462/1, 8462/2		
Key Stage 4:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	Unit(s):	Atomic structure and the periodic table	Bonding, structure, and the properties of matter	Quantitative chemistry	Chemical changes	Energy changes	Rate of chemical change
	Key skills:	Maths skills Practical skills Analysing theories	Spatial reasoning Practical skills	Maths skills Practical skills	Practical skills	Maths skills Graph drawing Practical skills	Maths skills Practical skills Graph drawing
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment	History link development of periodic table Art / food link making models of atoms <i>LORIC- Organisation Organisation with regards to periodic table development Organisation of sub atomic particles in different bonding situations</i>	Links with everyday life Link with industry <i>LORIC- Communication Communication skills linked to use of graphical representations</i>	History link the work of Avogadro Links with Maths for calculations <i>LORIC- Leadership Leadership skills development through peer support with maths problems Develop resilience skills through this topic</i>	Link with industry STEM club <i>LORIC- Initiative Making revision cards for all topics</i>	Links with GCSE Physics and year 9 <i>LORIC- Organisation Organisation through a lot of practical working in this topic</i>	Maths link for calculations of rate <i>LORIC- Resilience Consolidation of year 10 topics. Preparation for year 11. Revision for end of topic test</i>
Year 11	Unit(s):	Energy changes recap Rate of Chemical change Organic chemistry	Organic chemistry Chemical analysis	Atmosphere	Using resources	Exam time	Exam time
	Key Skills:	Spatial reasoning Scientific drawing	Evaluating results maths skills Analysis techniques	Evaluating theories Analysing data	Evaluating theories Analysing data		
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework		

	Enrichment	Trip to Wilton to look at fractional distillation / cracking <i>LORIC- Organisation</i> <i>Organisation through a lot of practical working in this topic</i>	Visit from a chemist to discuss formulations <i>LORIC- Communication</i> <i>Communication of organic compounds through international nomenclature</i>	Link to the work of climate scientists and environmental activists <i>LORIC- Leadership</i> <i>Look at the leadership and communication skills of environmental activists</i>	Visit to water treatment plant Links with DT materials <i>LORIC- Resilience</i> <i>Consolidation of year 11 topics.</i> <i>Preparation for GCSE exam.</i>		
End of course external assessment: Year 10 mock on topics covered so far				End of course external assessment: Paper 1- Topics 1–5: Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry, Chemical changes; and Energy changes. (1hr 45) 50% Paper 2 -Topics 6–10: The rate and extent of chemical change; Organic chemistry; Chemical analysis, Chemistry of the atmosphere; and Using resources. (1hr 45) 50% Higher and foundation options for exam papers			

Curriculum Map

Subject: Triple science Physics: GCSE AQA		Exam board: AQA	Quan code: 601/8751/7	Entry code: 8463 foundation or higher	Unit codes: 8463/1, 8463/2		
Key Stage 4:		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	Unit(s):	Energy	Electricity	Electricity	Particle model of matter	Atomic structure	Forces
	Key Skills:	Maths skills Practical skills	Maths skills Scientific drawing	Application of knowledge	Spatial reasoning Practical skills	Maths skills Practical skills Analysing theories	Scientific predictions Graph drawing Maths skills
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework
	Enrichment	Links with DT energy <i>LORIC- Organisation</i> <i>Organising the way they use their exercise books, homework, equipment etc since they are just starting GCSE. Revision cards etc</i>	Visit from electric company <i>LORIC- Communication</i> <i>Save electricity campaign for the school</i>	Visiting Electrical engineer <i>LORIC- Leadership</i> <i>Lead an assembly about saving electricity or renewable energy</i>	Link with chemistry <i>LORIC- Initiative</i> <i>Plan an activity for lower school teaching this topic</i>	Links with Chemistry <i>LORIC- Organisation</i> <i>Organise discoveries of the atom</i>	Links with DT <i>LORIC- Resilience</i> <i>Consolidation of year 10 topics. Preparation for year 11. Revision for end of topic test</i>
Year 11	Unit(s):	Forces - Motion onwards	Waves	Magnetisms and electromagnets	Space Physics	Exam time	Exam time
	Key Skills:	Data processing Maths skill	Maths skills Application of knowledge	Practical skills Application of knowledge	Analysing theories Evaluating evidence		
	Assessment	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework	End of unit test AFL Homework		
	Enrichment	Links with Maths for calculations <i>LORIC- Organisation</i>	Links with the eye and ear in Physics <i>LORIC- Communication</i>	visit to power plant which uses electromagnetic induction	Visit to observatory ir visit to space museum		

		<i>Organise practical investigations into forces through required practicals</i>	<i>Communication skills linked to use of graphical representations</i>	<i>LORIC- Leadership Lead revision activities/ clubs or share revision resources</i>	Links with GCSE astronomy <i>LORIC- Resilience Consolidation of year 11 topics. Preparation for GCSE exam.</i>		
End of course external assessment: Year 10 mock on topics covered so far				End of course external assessment: Paper 1- Topics 1-4: Energy; Electricity; Particle model of matter; and Atomic structure. (1hr 45) 50% Paper 2 - Topics 5-8: Forces; Waves; Magnetism and electromagnetism; and Space physics. (1hr 45) 50% Higher and foundation options for exam papers			