



Subject: Chemistry

Lead Teacher: Mr R Wright

Year: 11

Curriculum organisation

Students are taught in mixed groups of 30 for **two** hours per week. They are not grouped by ability.

Overview of Topics & Key Information

How will your child be learning?

Term	Unit(s) of Work	Key Enquiry Questions	Key Content/ Terminology	Skills developed	How will your child be learning?
Autumn Term	<ul style="list-style-type: none"> Organic chemistry (3) 	<ul style="list-style-type: none"> What are the reactions of carboxylic acids How are addition polymers and condensation polymers formed? How are amino acids formed? What is DNA? 	<ul style="list-style-type: none"> Carboxylic acids Esters Addition polymerisation Condensation polymerisation Amino acids DNA 	<ul style="list-style-type: none"> Use appropriate scientific vocabulary and theory correctly 	<ul style="list-style-type: none"> Whole class discussion Pair work Practical activities Problem-solving tasks Watching short video clips
Spring Term	<ul style="list-style-type: none"> Chemistry of the atmosphere 	<ul style="list-style-type: none"> What are the gases in the atmosphere How has the earth's early atmosphere changed? How have human activities contributed to global climate change? 	<ul style="list-style-type: none"> Proportions of gases in the atmosphere Greenhouse gases Global climate change Carbon footprint Atmospheric pollution 	<ul style="list-style-type: none"> Describe patterns in data Make prediction using scientific knowledge and understanding Present observations and data appropriately 	<ul style="list-style-type: none"> Research tasks
	<ul style="list-style-type: none"> Using resources 	<ul style="list-style-type: none"> How do we make water that is fit to drink? How is waste water treated? What are alternative methods for extracting metals? What is life cycle assessment? How is corrosion prevented? How are fertilisers manufactured? 	<ul style="list-style-type: none"> Potable water Waste water treatment Life cycle assessment and recycling Corrosion and alloys Ceramics, polymers and composites The Haber process and NPK fertilisers 	<ul style="list-style-type: none"> Use appropriate techniques, apparatus and materials to carry out practical work safely. Make and record observations and measurements. Select plan and carry out investigations to test predictions Evaluate reliability of methods and suggest possible improvements 	
Summer Term	<ul style="list-style-type: none"> Revision 		<ul style="list-style-type: none"> Revision of topics covered in year 9 and year 10 Past papers 		

Equipment needed for lessons	How will learning and progress be assessed?
<ul style="list-style-type: none"> • Standard school stationery • Exercise book • Calculator 	<ul style="list-style-type: none"> • End of unit tests (subject knowledge focus) • Mock exam week (November) • Peer and self assessment • Homework tasks • Retrieval practice activities

Extension & Enrichment opportunities	What can you do to support your child?
<ul style="list-style-type: none"> • Revision guides are available from CGP to help with exam preparation • Suggested websites include https://www.bbc.co.uk/bitesize https://www.freesciencelessons.co.uk/ https://www.physicsandmathstutor.com/ • Podcasts to inspire wider interest https://www.thenakedscientists.com/ https://www.scientificamerican.com/podcasts/ • Work is sometimes taken beyond the limits of the specification in order to provide greater depth of knowledge and understanding of material • Extension tasks are provided within the course which generate greater interest in the subject and help prepare students for A level 	<ul style="list-style-type: none"> • Take an active interest in their learning • Quiz them on what they have learned that day or week • Encourage studying little and often throughout the year with focussed revision leading up to assessments • Work with them to produce a study timetable that is flexible and realistic

Inclusion	
In lessons	Subject specific
<ul style="list-style-type: none"> • Teachers follow student passports to ensure that the needs of all students with SEND are met. • Work is enlarged to the necessary size for visually impaired students. • Teachers will ensure that classrooms are quiet learning environments where possible and will dim lights to support students with sensory needs. • Students have the use of laptop if they have a SEND need whereby use of a laptop supports them. • Hearing impaired students are supported through use a radio aid and teachers ensure that students can lip read at all times during lessons. • Dyslexic students are encouraged to use coloured overlays when they are required to read long passages. • Use of dyslexic friendly fonts and coloured backgrounds used in PowerPoints/resources. • Students with ADHD are given movement breaks, fidget toys and lessons are 'chunked' to aid concentration. • Students are seated according to their needs, students work with the SENDCo to decide upon this. 	<ul style="list-style-type: none"> • For pupils with visual impairment, enlarged graph paper for plotting graphs during experiments • Physical impairment – where possible we amend practical equipment or provide a magnifying glass to view instruments • Hearing impaired – show videos with subtitles • Some laboratories have height-adjustable benches for wheelchair access • Cater for latex allergies by providing disposable gloves

If you have any questions about this Learning Overview, please contact the named Teacher above.