Curriculum Overview

Subject: Chemistry

Year Group: 10

CHASE HIGH SCHOOL
AMBITION - RESILIENCE - KINDNESS

Year 10 & 11 Chemistry is **academically ambitious.** Throughout Key Stage 4 (KS4) students will extend the **powerful knowledge** already developed in KS3. Each Lesson has a particular **LORIC** and **Career focus** reflecting the school's improvement plan.

With a focus on Key Concepts, Apparatus and Techniques across all topics students will develop the **subject disciplinary knowledge** needed to scrutinise the world around them and communicate their findings effectively. Students will follow the AQA GCSE Chemistry specification and are required to undertake 8 required practical activities, developing analytical and rational thought processes through planning, experimentation and reflection. **Interleaving questions** at the beginning of every lesson allow students to spend time recalling previous learning so that **practise** makes permanent.

TERM 1	**TERM 2**	**TERM 3**
KNOWLEDGE/SKILLS **C5**- Chemical changes (acids and alkali, the reactivity series, extracting metals) **C6** - Electrolysis Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and	KNOWLEDGE/SKILLS **C7** - Energy changes (Endo/Exothermic reaction, bond energy, batteries, fuel cells) **C8** - Rates and equilibrium (Rates of reactions and how they can be manipulated) **C9**- Crude oil and fuels (Hydrocarbons, fractional distillation) Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and	KNOWLEDGE/SKILLS **C13**- Chemistry of the atmosphere (Earths early atmosphere, Green house effect) Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and

draw conclusions; develop and improve experimental procedures.	draw conclusions; develop and improve experimental procedures.	draw conclusions; develop and improve experimental procedures.
KEY ASSESSMENTS Half term 1: Topic 5 test Half term 2: EOT test	KEY ASSESSMENTS Half term 1: Topic 7/8 test, Half term 2: EOT test	KEY ASSESSMENTS Half term 1: End of year 10 PPE's paper 1 Half term 2: QLA assessment.
Extended reading suggestions and external resources: KS4 Bitesize Science https://www.bbc.co.uk/bitesize/subjects/zs6hvcw Oak National Academy Lessons https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/chemistry Chase High Youtube Playlists https://www.youtube.com/channel/UCSK4ImJfi5sPH4UBp7cZtyQ We actively encourage students to read and research about the wider Scientific word- Planet Earth and Perfect Planet both on BBC iPlayer are examples of where students can engage with Science from the safety and comfort of their own homes.		

Curriculum Overview

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Year Group: 11

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TERM 1	TERM 2	TERM 3
KNOWLEDGE/SKILLS **C12** - Chemical analysis (Chromatography, gas tests, instrumental, positive/negative ions). **C14**- Earth's resources (Potable water, waste water treatment, life cycle assessments, extracting metals) Personalised Revision from Yr 10 PPE Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.	KNOWLEDGE/SKILLS **C10**- Organic reactions (Alkenes, alcohol, carboxylic esters/ acids) **C11**- Polymers (addition/ condensation, natural) **C15** - Using our resources (Rusting, glass/ceramics/composites, Haber process, Fertilisers) Personalised revision from December PPE Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.	KNOWLEDGE/SKILLS Personalised revision from Easter PPE Skills: • AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. • AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. • AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.
KEY ASSESSMENTS	KEY ASSESSMENTS	KEY ASSESSMENTS

Half term 1: Autumn PPE paper 1 Half term 2: Chromatograms, Rf exam	Half term 1: Spring PPE paper 2 Half term 2: QLA Paper 1/ 2	GCSE's
Extended reading suggestions and external resources: KS4 Bitesize Science https://www.bbc.co.uk/bitesize/subjects/zs6hvcw Oak National Academy Lessons https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/chemistry Chase High Youtube Playlists https://www.youtube.com/channel/UCSK4ImJfi5sPH4UBp7cZtyQ We actively encourage students to read and research about the wider Scientific word- Planet Earth and Perfect Planet both on BBC iPlayer are examples of where students can engage with Science from the safety and comfort of their own homes.		