

Stowmarket High School

Year 11 Chemistry Learning Journey

Skills taught in Chemistry:

1. Planning an investigation
2. Practical skills
3. Collecting and recording data
4. Presenting data – drawings graphs and tables
5. Interpreting data to make conclusions and evaluations



GCSE Exams!

Further education or work

Curriculum links to:

Biology 9 - Anaerobic respiration
Biology 13 - DNA structure
Biology 18 – Land pollution
Physics 3 – Energy resources
Physics 13 – Electromagnetic spectrum

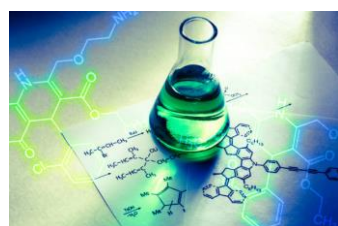


Summer Term

Throughout year 11 all students have the opportunity to: attend visits from professionals working in the field of Science, get access to science careers information, participate in the bronze or silver STEMM award, experience extracurricular trips and activities.

SUCCESS SESSIONS

Life is like organic chemistry. Easy and pleasant as long as we pay attention, difficult and challenging unless we take the plunge.
Chinnmaya das



Review and revision



Feedback and DIRT



Seneca

SMHW

Fuseschool.org

Freesciencelessons.com

REVISION BEGINS!

Sharepoint

BBC Bitesize

myGCSEscience

Studyrocket.co.uk

Spring Term

Required Practical: testing for Negative ions



Testing for Positive ions



Testing for gases



Instrumental analysis



Required Practical: Analysing chromatograms

End Of Unit Test



10. Chemical Analysis

Numeracy: calculating Rf values



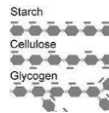
Feedback and DIRT



End Of Unit Test



DNA



Natural polymers

Review and revision



Condensation polymerisation



Giant covalent structure of diamond and graphite



Carboxylic Acids



Esters

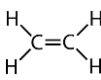
Alcohols: reactions and uses



Glass, ceramics and composites



Addition polymerisation



8. Organic Chemistry

Finite and renewable resources



Review and revision



Nanoparticles and their applications



Giant covalent structure of fullerene and graphene



Pure substances and mixtures



9. Material Chemistry

Rusting



Methods of extracting metals

Alloys



Life cycle assessments and recycling



Autumn Term



welcome

Stowmarket High School

Year 10 Chemistry Learning Journey

Skills taught in Chemistry:

1. Planning an investigation
2. Practical skills
3. Collecting and recording data
4. Presenting data – drawings graphs and tables
5. Interpreting data to make conclusions and evaluations



Year 10
PRE!

Year 11

Curriculum links to: **Biology 3 – Catalysts and enzymes**
Biology 5 – Communicable diseases
Biology 8 – Photosynthesis
Biology 18 and Physics 13 – Global warming
Physics 1 – Energy transfer



Throughout year 10 all students have the opportunity to: attend visits from professionals working in the field of Science, get access to science careers information, participate in the bronze STEMM award, experience extracurricular trips and activities.

I believe that the science of Chemistry alone almost proves the existence of an intelligent creator
Thomas Edison



Fractional distillation



Combustion of alkanes



Atmospheric pollutants

Feedback and DIRT



End Of Unit Test

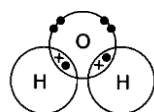


Summer Term

Required Practical: purifying drinking water

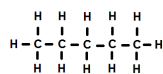


Earth's atmosphere



Covalent bonding

Hydrocarbons



Simple molecular structure

7. Earth Chemistry

Cracking



Feedback and DIRT



Review and revision



Greenhouse gases and climate change



The Haber process



Review and revision



Reversible reactions and energy



Catalysts

Numeracy: Percentage yield and atom economy

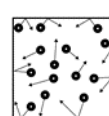


Dynamic equilibrium



The effect of temperature on rate of reaction

The effect of surface area on rate of reaction



Rate of reaction and collision theory



6. Rates and Equilibria

End Of Unit Test



Review and revision



Spring Term

Fuel cells

Required Practical: electrolysis of aqueous solutions

Feedback and DIRT



Electrolysis of Molten compounds

1 Mole
 6.02×10^{23}



Required Practical: investigating energy changes

Numeracy: calculations involving gases



Exothermic and Endothermic reactions



Required Practical: concentration and rate of reaction

Autumn Term

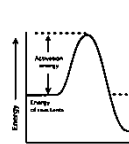


Uses of electrolysis



Changes at the electrodes

Numeracy: bond energy calculations



Using energy transfers

5. Energy and Reactions

welcome

Stowmarket High School

Year 9 Chemistry Learning Journey

Skills taught in Chemistry:

1. Planning an investigation
2. Practical skills
3. Collecting and recording data
4. Presenting data – drawings graphs and tables
5. Interpreting data to make conclusions and evaluations

Curriculum links to:

Biology 1 – Electron microscope
Physics 1 – Law of conservation
Physics 6 – molecules and matter
Physics 7 – Radioactivity



Throughout year 9 all students have the opportunity to: attend visits from professionals working in the field of Science, get access to science careers information, participate in the bronze STEMM award, experience extracurricular trips and activities.

Chemistry begins in the stars. The stars are the source of the chemical elements, which are the building blocks of matter and the core of our subject.
Peter Atkins

