

GCSE Combined Science : Chemistry Paper 1 – FRIDAY 17TH MAY 2024

Use your Y9, Y10 & Y11 exercise books , the online textbook and resources on Kerboodle & Educake to help you revise

Atoms, Bonding and Moles

Atomic Structure

1. Atoms
2. Chemical Equations
3. Separating Mixtures
4. Fractional Distillation & Paper Chromatography
5. History of the Atom
6. Structure of the Atom
7. Ions, Atoms and Isotopes
8. Electronic Structures

The Periodic Table

1. Development of the Periodic Table
2. Electronic Structures & the Periodic Table
3. Group 1 – the alkali metals
4. Group 7 – the halogens
5. Explaining Trends

Structure and Bonding

1. States of Matter
2. Atoms into Ions
3. Ionic Bonding
4. Giant Ionic Structures
5. Covalent Bonding
6. Structure of Simple Molecules
7. Giant Covalent Structures
8. Fullerenes and Graphene
9. Bonding in Metals
10. Giant Metallic Structures

Chemical Calculations

1. Relative Masses & Moles
2. *Equations & Calculations (HT only)*
3. *From Masses to Balanced Equations (HT only)*
4. Expressing Concentrations

Chemical Reactions & Energy Changes

Chemical Changes

1. The Reactivity Series
2. Displacement Reactions
3. Extracting Metals
4. Salts from Metals
5. Salts from Insoluble Bases
6. Making More Salts
7. Neutralisation & the pH Scale
8. *Strong & Weak Acids (HT only)*

Electrolysis

1. Introduction to Electrolysis
2. Changes at the Electrodes
3. The Extraction of Aluminium
4. Electrolysis of Aqueous Solutions

Energy Changes

1. Exothermic & Endothermic Reactions
2. Using Energy Transfers from Reactions
3. Reaction Profiles
4. *Bond Energy Calculations (HT only)*

Required Practicals

1. Prepare a salt from an insoluble metal carbonate or oxide
2. Investigate the electrolysis of a solution
3. Investigate temperature changes