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# Chemistry






## AQA

### Getting Ready for KS4 (GCSE)

#### Getting Ready for KS4 (GCSE) Chemistry

Exothermic & Endothermic Reactions	CHEM-2081			
Getting Ready for KS4 (GCSE)	GRF-01-001			
Representing Chemical Reactions	CHEM-2017			
States of matter	CHEM-2150			
The Periodic Table	CHEM-2008			
Discovery of the Structure of the Atom	CHEM-2009			
Atomic Structure	CHEM-2010			
Combining Elements	CHEM-2013			
Atoms and Formula	CHEM-2015			
Determination of a Melting Point for a Pure and Impure Substance	CHEM-20-014			
Investigate the Variables that Affect Temperature Changes in Reacting Solutions	CHEM-20-012			
Solubility	CHEM-2126			
Separation Methods	CHEM-2089			
Chromatography	CHEM-2086			
Diffusion	CHEM-2153			
Acids and Bases	CHEM-2101			
Investigate the Change in pH on Adding Powdered Calcium Hydroxide or Calcium Oxide to a Fixed Volume of Dilute Hydrochloric Acid	CHEM-20-013			
Making Salts	CHEM-2104			
Displacement	CHEM-2031			
Group 1: Alkali Metals	CHEM-2001			
Group 7: The Halogens	CHEM-2004			
Traditional Extraction Methods	CHEM-2025			
Elements in the Periodic Table	CHEM-2007			
Polymerisation	CHEM-2046			

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Properties Of Polymers	CHEM-2047			
The Atmosphere: Past and Present	CHEM-2054			
Processes that Change the Atmosphere	CHEM-2057			
Acid metal reactions	CHEM-2145			
Climate Change	CHEM-2039			
Scientific Method	SCI-MAT-001			
Lab measurements	CHEM-2155			
Chemical Reactions	CHEM-2016			

## 4.1/Atomic structure and the periodic table

### 4.1.2/The periodic table

The Periodic Table	CHEM-2008			
History of the Periodic Table	CHEM-2014			
The Noble Gases	CHEM-2006			
Group 1: Alkali Metals	CHEM-2001			
Reactivity in Group 1	CHEM-2002			
Group 7: The Halogens	CHEM-2004			
Reactivity in Group 7	CHEM-2005			




### 4.1.1/A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes

Atomic Structure	CHEM-2010			
Combining Elements	CHEM-2013			
Representing Chemical Reactions	CHEM-2017			
Electronic Structure	CHEM-2012			
Elements and compounds	CHEM-2151			
Isotopes and Relative Atomic Mass	CHEM-2070			
Separation Methods	CHEM-2089			
Discovery of the Structure of the Atom	CHEM-2009			
Subatomic Particles	CHEM-2011			
Elements in the Periodic Table	CHEM-2007			
<b>4.1.3/Properties of transition metals</b>				
The Transition Metals in the Periodic Table	CHEM-2003			

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Transition Metals

 CHEM-2029   

## 4.2/Bonding, structure, and the properties of matter

### 4.2.2/How bonding and structure are related to the properties of substances

 States of matter CHEM-2150   


 Polymerisation CHEM-2046   


 Properties of metals CHEM-2158   

### 4.2.1/Chemical bonds, ionic, covalent and metallic

 Ionic bonding CHEM-2060   

 Ionic Compounds CHEM-2062   

 Formula of Ionic Compounds CHEM-2061   

 Covalent Bonding CHEM-2063   

 Metallic Bonding CHEM-2064   

 Simple & Giant Covalent Substances CHEM-2065   

### 4.2.3/Structure and bonding of carbon

 Allotropes of Carbon CHEM-2066  



### 4.2.4/Bulk and surface properties of matter including nanoparticles

 Nanoscience CHEM-2069  

## 4.3/Quantitative chemistry

### 4.3.1/Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations

 Atoms and Formula CHEM-2015   

 Relative Formula Mass and Percentage By Mass CHEM-2071   

### 4.3.2/Use of amount of substance in relation to masses of pure substances

 Moles CHEM-2073   

 Reacting Masses CHEM-2139   

 Empirical Formulae CHEM-2072   

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Concentration and Solutions CHEM-2074   

Chemical Reactions CHEM-2016   

### 4.3.3/Yield and atom economy of chemical reactions


Percentage Yield and Atom Economy CHEM-2075  

### 4.3.4/Using concentrations of solutions in mol/dm<sup>3</sup>

Titration Calculations Using Moles CHEM-2134  


## 4.4/Chemical changes

### 4.4.2/Reactions of acids




Neutralisation CHEM-2103   

Making Salts CHEM-2104   

Salt CHEM-2018   

Acids and Bases CHEM-2101   


Alkalis CHEM-2102   

Titration Calculations Using Relative Formula Mass CHEM-2135   

Titration: Practical Procedure CHEM-2092   

Titration: Practical Procedure CHEM-2140   


Strong & Weak Acids CHEM-2124   

Acid metal reactions CHEM-2145   


### 4.4.3/Electrolysis

Electrolysis CHEM-2095   

Uses Of Electrolysis CHEM-2100   

Events at the Electrodes CHEM-2096   

### 4.4.1/Reactivity of metals

Oxides CHEM-2148   

Metals & Ores CHEM-2024   

Traditional Extraction Methods CHEM-2025   

Displacement CHEM-2031   

Redox CHEM-2128   

## 4.5/Energy changes

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### 4.5.1/Exothermic and endothermic reactions

Exothermic & Endothermic Reactions	CHEM-2081			
Bond breaking & bond making	CHEM-2082			
Measuring Energy Changes	CHEM-2083			
Calculations Using Bond Energies	CHEM-2137			

### 4.5.2/Chemical cells and fuel cells

Fuel Cells	CHEM-2127			
Fuel cells	CHEM-2156			

## 4.6/The rate and extent of chemical change

### 4.6.1/Rate of reaction

Effect of Concentration and Pressure	CHEM-2078			
Interpreting Rate Graphs	CHEM-2136			
Measuring Reaction Rates	CHEM-2138			
Effect of Temperature & Surface Area	CHEM-2079			
Rates Of Reaction & Collision Theory	CHEM-2077			
Catalysts	CHEM-2080			

### 4.6.2/Reversible reactions and dynamic equilibrium

Reversible Reactions & Equilibria	CHEM-2084			
Choosing the Reaction Conditions	CHEM-2106			

## 4.7/Organic chemistry

### 4.7.2/Reactions of alkenes and alcohols

Alkenes	CHEM-2041			
Alcohols	CHEM-2114			
Ethanol	CHEM-2115			
Carboxylic Acids	CHEM-2116			

### 4.7.1/Carbon compounds as fuels and feedstock

Crude Oil	CHEM-2032			
Fuels	CHEM-2034			
Alkanes	CHEM-2033			

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Complete and Incomplete Combustion CHEM-2035   

### 4.7.3/Synthetic and naturally occurring polymers

Condensation polymerisation CHEM-2149   

## 4.8/Chemical analysis

### 4.8.1/Purity, formulations and chromatography

Chromatography CHEM-2086   

### 4.8.3/Identification of ions by chemical and spectroscopic means



Flame Testing & Spectroscopy CHEM-2090   


Uses of sodium hydroxide and chlorine CHEM-2143   

Metal Carbonates CHEM-2022   


## 4.9/Chemistry of the atmosphere

### 4.9.3/Common atmospheric pollutants and their sources

Environmental Impact of Burning Hydrocarbons CHEM-2036  

Pollution CHEM-2037  

### 4.9.2/Carbon dioxide and methane as greenhouse gases

Climate Change CHEM-2039   

Processes that Change the Atmosphere CHEM-2057   

### 4.9.1/The composition and evolution of the Earth's atmosphere

The Atmosphere: Past and Present CHEM-2054   

## 4.10/Using resources






### 4.10.4/The Haber process and the use of NPK fertilisers

Using Fertilisers CHEM-2108   

### 4.10.1/Using the Earth's resources and obtaining potable water

Purifying Water CHEM-2120   

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Testing for water	CHEM-2146			
New Ways of Extracting Copper	CHEM-2026			

### 4.10.3/Using materials

Corrosion	CHEM-2030			
Alloys	CHEM-2028			
Properties Of Polymers	CHEM-2047			

### 4.10.2/Life cycle assessment and recycling

Reducing Pollution	CHEM-2038		
Recycling metals	CHEM-2160		

## Chemistry Practicals

### Chemistry Practicals

Preparation of a Pure, Dry Sample of Salt from an Insoluble Oxide or Carbonate	CHEM-20-001			
Investigation Into Factors Affecting the Rates of Reactions	CHEM-20-002			
Investigate What Happens When Aqueous Solutions Are Electrolysed Using Inert Electrodes	CHEM-20-003			
Determination of the Reacting Volumes of Solutions of a Strong Acid and a Strong Alkali by Titration	CHEM-20-005			
Use of Chemical Tests to Identify the Ions in Unknown Single Ionic Compounds	CHEM-20-006			
Investigate How Paper Chromatography Can Be Used to Separate and Tell the Difference Between Coloured Substances	CHEM-20-007			
Separation of Liquids by Distillation	CHEM-20-008			
Investigate the Variables that Affect Temperature Changes in Reacting Solutions	CHEM-20-012			

## Revision Skills and Tips - Chemistry








































































### Revision Tips

Introduction	REV-001-002-001		
Revising Chemistry	REV-001-002-002		
Discussing Topics with Friends	REV-001-002-003		
Breaking Up Lists	REV-001-002-004		
Being Definite About Definitions	REV-001-002-005		

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Summary	REV-001-002-006		
Web Links	REV-001-002-007		
<b>Revision and Study Skills</b>			
Introduction	REV-001-004-001		
Planning for Revision	REV-001-004-002		
Developing Independent Study Skills for Success	REV-001-004-003		
Managing Exam Stress	REV-001-004-004		
Keeping Your Brain Active During Revision	REV-001-004-005		
Summary	REV-001-004-006		
Web Links	REV-001-004-007		
<b>GCSEPod's Top Revision Tips</b>			
GCSEPod's Top Revision Tips	REV-011-001		
<b>Getting Ready for KS5 (A Level)</b>			
<b>Getting Ready for KS5 (A Level) Chemistry</b>			
Ionic bonding	CHEM-2060		 
Ionic Compounds	CHEM-2062		 
Exothermic & Endothermic Reactions	CHEM-2081		 
Getting Ready for KS5 (A Level)	GRF-01-002		 
Atoms and Formula	CHEM-2015		 
Formula of Ionic Compounds	CHEM-2061		 
The Periodic Table	CHEM-2008		 
Discovery of the Structure of the Atom	CHEM-2009		 
Moles	CHEM-2073		 
Covalent Bonding	CHEM-2063		 
Atomic Structure	CHEM-2010		 
Electronic Structure	CHEM-2012		 
Metallic Bonding	CHEM-2064		 
Isotopes and Relative Atomic Mass	CHEM-2070		 
Separation Methods	CHEM-2089		 
Subatomic Particles	CHEM-2011		 
DNA (Part 1)	BIOL-2024		 

**Symbol Keys**


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
































































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Additional Resources

DNA (Part 2)	BIOL-2025			
Relative Formula Mass and Percentage By Mass	CHEM-2071			
Titration Calculations Using Moles	CHEM-2134			
Concentration and Solutions	CHEM-2074			
Gas Pressure	PHYS-2098			
Percentage Yield and Atom Economy	CHEM-2075			
Simple & Giant Covalent Substances	CHEM-2065			
Bond breaking & bond making	CHEM-2082			
Calculations Using Bond Energies	CHEM-2137			
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Alkanes	CHEM-2033			
Alkenes	CHEM-2041			
Alcohols	CHEM-2114			
Carboxylic Acids	CHEM-2116			
Properties Of Polymers	CHEM-2047			
Polymerisation	CHEM-2046			
Lab measurements	CHEM-2155			
Chromatography	CHEM-2086			

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