

# AQA GCSE Chemistry 8462/8464 (9-1) Specification map

## Trilogy, Chemistry only and Higher Tier

### 1 Atomic structure and the periodic table

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11
1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes	●										
1.2 The periodic table		●									
1.3 Properties of transition metals (chemistry only)		●									

### 2 Bonding, structure, and the properties of matter

2.1 Chemical bonds, ionic, covalent and metallic			●								
2.2 How bonding and structure are related to the properties of substances			●								
2.3 Structure and bonding of carbon			●								
2.4 Bulk and surface properties of matter including nanoparticles (chemistry only)			●								

### 3 Quantitative chemistry

3.1 Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations				●							
3.2 Use of amount of substance in relation to masses of pure substances				●							
3.3 Yield and atom economy of chemical reactions (chemistry only)				●							
3.4 Using concentrations of solutions in mol/dm <sup>3</sup> (chemistry only) (HT only)				●							
3.5 Use of amount of substance in relation to volumes of gases (chemistry only) (HT only)				●							

### 4 Chemical changes

4.1 Reactivity of metals					●						
4.2 Reactions of acids					●						
4.3 Electrolysis						●					

### 5 Energy changes

5.1 Exothermic and endothermic reactions						●					
5.2 Chemical cells and fuel cells (chemistry only)						●					

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### 6 The rate and extent of chemical change

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11
6.1 Rate of reaction							●				
6.2 Reversible reactions and dynamic equilibrium							●				

### 7 Organic chemistry

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11
7.1 Carbon compounds as fuels and feedstock								●			
7.2 Reactions of alkenes and alcohols (chemistry only)									●		
7.3 Synthetic and naturally occurring polymers (chemistry only)									●		

### 8 Chemical analysis

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11
8.1 Purity, formulations and chromatography											●
8.2 Identification of common gases											●
8.3 Identification of ions by chemical and spectroscopic means (chemistry only)											●

### 9 Chemistry of the atmosphere

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11
9.1 The composition and evolution of the Earth's atmosphere											●
9.2 Carbon dioxide and methane as greenhouse gases											●
9.3 Common atmospheric pollutants and their sources											●

### 10 Using resources

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11
10.1 Using the Earth's resources and obtaining potable water											●
10.2 Life cycle assessment and recycling											●
10.3 Using materials (chemistry only)											●
10.4 The Haber process and the use of NPK fertilisers (chemistry only)											●