

## Chemistry

**Note – Lessons are delivered to students earlier or later depending on how much curriculum time you get for Biology, Chemistry and Physics in that particular year. So some students learn about a topic in the Autumn term in one class and other students learn about it in the Spring term. Try to find where you are up to. (Note – all students will receive the exact same amount of curriculum time between Years 7 and 11 by the end of Year 11)**

### Year 7 Chemistry

Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge quizzes.

#### **Unit Title: C7a Particles (Autumn Term)**

[Working safely in the lab - Working scientifically - KS3 Science - BBC Bitesize - BBC Bitesize](#)  
[What is the arrangement of particles in a solid, liquid and gas? - BBC Bitesize](#)  
[What are changes of state? - BBC Bitesize](#)  
[Gas pressure - BBC Bitesize](#)  
[What is water guide for KS3 chemistry students - BBC Bitesize](#)

#### **Unit Title: C7b Atoms and Elements (Autumn/Spring Term)**

[Atoms and molecules - BBC Bitesize](#)  
[What are elements in science? KS3 guide for chemistry students - BBC Bitesize](#)  
[The modern periodic table - BBC Bitesize](#)  
[Elements, compounds and mixtures - BBC Bitesize](#)  
[Symbols and formulae - BBC Bitesize](#)  
[What is the process of filtration? - BBC Bitesize](#)  
[Evaporation - BBC Bitesize](#)  
[Distillation - BBC Bitesize](#)  
[Chromatography guide for KS3 chemistry students - BBC Bitesize](#)

#### **Unit Title: C7c Acids and Alkalis (Spring/Summer Term)**

[What is the pH scale and what does it measure? - BBC Bitesize](#)  
[What is a neutralisation reaction? - BBC Bitesize](#)  
[What is an acid and metal reaction? - BBC Bitesize](#)  
[Acids in the laboratory - Acids and bases - KS3 Chemistry Revision - BBC Bitesize](#)

## **Year 8 Chemistry**

Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge quizzes.

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| <b>Unit Title: C8a Chemical Reactions (Autumn Term)</b> |
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| <a href="#">Physical and chemical properties - BBC Bitesize</a><br><a href="#">What is a chemical reaction? - BBC Bitesize</a><br><a href="#">Writing word equations - BBC Bitesize</a><br><a href="#">Making a reactivity series - The reactivity series - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a><br><a href="#">Displacement reactions guide for KS3 chemistry students - BBC Bitesize</a><br><a href="#">Oxidation - BBC Bitesize</a><br><a href="#">What are exothermic and endothermic reactions? - BBC Bitesize</a><br><a href="#">Catalysts guide for KS3 chemistry students - BBC Bitesize</a><br><a href="#">Combustion: what is it? - BBC Bitesize</a> |
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| <b>Unit Title: C8b Materials (Spring Term)</b> |
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| <a href="#">Composites - Materials - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a><br><a href="#">Ceramics - Materials - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a><br><a href="#">Polymers - Materials - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a> |
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| <b>Unit Title: C8b The Earth and Rocks (Spring/Summer Term)</b> |
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| <a href="#">Resources from the Earth guide for KS3 chemistry students - BBC Bitesize</a><br><a href="#">Structure of the Earth - The Earth and atmosphere - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a><br><a href="#">Rock types - The Earth and atmosphere - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a><br><a href="#">The rock cycle - The Earth and atmosphere - KS3 Chemistry - BBC Bitesize - BBC Bitesize</a><br><a href="#">Composition of the atmosphere - BBC Bitesize</a><br><a href="#">Atmospheric pollution guide for KS3 chemistry students - BBC Bitesize</a><br><a href="#">Bias in Science - Working scientifically - KS3 Science - BBC Bitesize - BBC Bitesize</a> |
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## Year 9 Chemistry Autumn term

TASK - Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge quizzes.

### **Unit Title: Atomic Structure**

[Early ideas about atoms - Atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Developing models of atoms - Atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Structure of the atom - Atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Atomic number and mass number - Atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Isotopes - Atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Calculating relative atomic mass - Atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

## Year 9 Chemistry Spring term

### **Unit Title: Structure and Bonding**

Ionic Bonding

[Forming ions - Ionic compounds - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Forming ionic bonds - Ionic compounds - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The ionic lattice - Ionic compounds - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Properties of ionic compounds - Ionic compounds - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Covalent Bonding

Simple Covalent

[Covalent bonds - Small molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Modelling molecules - Small molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Drawing dot and cross diagrams - Small molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Interpreting dot and cross diagrams - Small molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Properties of substances with small molecules - Small molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Giant Covalent

[Substances with many covalent bonds - Giant covalent molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Diamond and graphite - Giant covalent molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Graphene and fullerenes - Giant covalent molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Polymers - Giant covalent molecules - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

#### **Metallic Bonding**

[Structure and bonding in metals - Metals and alloys - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Alloys - Metals and alloys - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

## Year 9 Chemistry Summer term

### **Unit Title: Chemical changes**

Reactivity of metals and reactions of metals.

[The reactivity series of metals - Reactions of metals - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Oxidation, reduction and displacement reactions - Reactions of metals - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Extracting iron and copper - Reactions of metals - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Reactions of Acids

[Acidic and alkaline solutions - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Neutralisation - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Reactions of acids with metals - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Naming salts - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Making soluble salts from insoluble substances - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - preparation of soluble salt - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Concentrations and strengths of acids - Higher - Acids, alkalis and salts - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

## Year 10 Chemistry Autumn term

### **Unit Title: The Periodic table**

[Mendeleev's periodic table - The periodic table - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The modern periodic table - The periodic table - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Electronic structure - The periodic table - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Properties of metals and non-metals - The periodic table - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Metals and non-metals in the periodic table - The periodic table - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

### **Unit Title: Chemical calculations**

[Relative formula mass - Calculations in chemistry - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Law of conservation of mass - Calculations in chemistry - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Chemical measurements - Calculations in chemistry - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Concentration of solutions - Calculations in chemistry - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Higher Tier only content

[The mole - Higher - Calculations in chemistry - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Moles and masses - Higher - Calculations in chemistry - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Mole calculations - Higher - Calculations in chemistry - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Reactions and moles - Higher - Calculations in chemistry - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Calculating concentrations - Calculations in chemistry - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Volumes of solutions in reactions - Calculations in chemistry - Higher - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

## **Year 10 Chemistry Spring term**

**Unit Title: Electrolysis**

[Electrolysis of molten salts - Electrolysis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Electrolysis of solutions - Electrolysis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - electrolysis of aqueous solutions - Electrolysis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Higher Tier

[Oxidation and reduction in electrolysis - Higher - Electrolysis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**Unit Title: Energy changes**

[Reactions and temperature changes - Exothermic and endothermic reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - temperature changes in reacting solutions - Exothermic and endothermic reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Reaction profiles - Exothermic and endothermic reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Higher only

[Explaining energy changes in reactions - Higher - Exothermic and endothermic reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Calculating energy changes - Higher - Exothermic and endothermic reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**Year 10 Chemistry Summer term****Unit Title: Rates and equilibrium**

[Rate of reaction - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Rates, concentration and pressure - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Rates and surface area to volume ratio - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Rates and temperature - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Catalysts - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - measure the production of a gas - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - investigate the rate of reaction by colour change - Rates of reaction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Reversible reactions - Reversible reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Changing the position of equilibrium - Higher - Reversible reactions - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**Unit Title: Crude oil and fuels**

[Crude oil and hydrocarbons - Crude oil, hydrocarbons and alkanes - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Alkanes - Crude oil, hydrocarbons and alkanes - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Separating crude oil - Crude oil, hydrocarbons and alkanes - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Properties of fractions - Crude oil, hydrocarbons and alkanes - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Cracking and alkenes - Crude oil, hydrocarbons and alkanes - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Multiple choice questions - Sample exam questions - organic chemistry - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**Year 11 Chemistry Autumn term**

**Unit Title: Chemical analysis**

[Pure substances - Analysing and identifying substances - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Formulations - Analysing and identifying substances - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Chromatography - Analysing and identifying substances - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - investigating the composition of inks - Analysing and identifying substances - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Tests for gases - Analysing and identifying substances - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Multiple choice questions - Sample exam questions - chemical analysis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**Unit Title: The Earth's atmosphere**

[The Earth's early atmosphere - Developing the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[How oxygen increased - Developing the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[How carbon dioxide decreased - Developing the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The greenhouse effect - Polluting the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Human activities and the greenhouse effect - Polluting the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Global climate change - Polluting the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The carbon footprint and its reduction - Polluting the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Combustion of hydrocarbon fuels - Polluting the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Atmospheric pollutants - Polluting the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Multiple choice questions - Sample exam question - chemistry of the atmosphere - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**Year 11 Chemistry Spring term****Unit Title: The Earth's resources**

[The Earth's resources - Sustainable development - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Finite and renewable resources - Sustainable development - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Potable water - Water - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Desalination - Water - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Waste water treatment - Water - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - analysis and purification of water - Water - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Life-cycle assessment - Ways of reducing the use of resources - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Recycling - Ways of reducing the use of resources - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Multiple choice questions - Sample exam questions - using resources - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Higher only

[Biological methods of metal extraction - Higher - Ways of reducing the use of resources - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

**End of Chemistry curriculum**