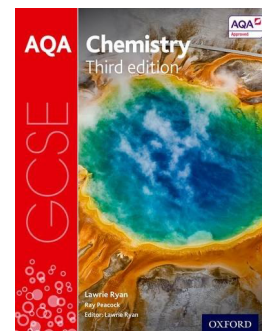




# Chemistry Overview

Term: Autumn  
Year: 9  
Teacher: Mr Alimgar Islam  
Textbook title: AQA GCSE Chemistry Oxford



What will we be covering this term?

## 1<sup>st</sup> Half Term:

**Atomic structure I** - This topic is a key concept that students should be confident with. It has significant overlapping contents between Key Stage 3 and Key Stage 4 which will be covered this term. Students will revise and develop their understanding of atoms as fundamental chemical building blocks. They will learn that a mixture consists of two or more elements or compounds not chemically combined together. They will be able to describe, explain and give examples of the specified processes of separation and suggest suitable separation and purification techniques for mixtures when given appropriate information.

**The periodic table** - Students will revise and develop their understanding of electronic structures from atomic structure and apply this to the arrangement of the periodic table and the chemical properties of Group 0, Group 1, and Group 7 elements.

**Structure and bonding** - Students will revise and develop their understanding of the states of matter from KS3.

## 2<sup>nd</sup> Half Term:

**Chemical change** - This topic is a fundamental concept that students should be confident with. It has significant contents between key stage 3 and key stage 4 which will be covered this term. Students will revise and develop their understanding of the reactivity series. Students will learn about salts and how they are prepared, including from metals and acids, acids and bases, and acids and carbonates. Students should be able to prepare a pure, dry sample of a salt from an insoluble metal oxide or carbonate as part of the required practical.



### Teacher's Marking Key:

Mark code	Means .....
SP	Spelling error
//	New paragraph needed
Work underlined	Indicate a word or phrase does not make sense
?	Not clear. Rewrite this section again to improve the expression.
FS	Write in full sentences
EX	Develop your explanation further using scientific keywords.
D	You need to add more detail.
EBI	Even better if
www	What went well
GR	Grammar error
P	Punctuation error

### How will my child be assessed this term?

There will be at least 2 assessed pieces this term. In more detail;

**1<sup>st</sup> Assessment:** Atomic structure & periodic table

**2<sup>nd</sup> Assessment:** Chemical change

At the end of the term there will be a summative exam that will test their knowledge for what they've covered during the course of the entire term.

### How can I help my child in this subject?

- Ensure homework is complete; you can track students' homework assignments at <https://www.showmyhomework.co.uk>
- Encouragement, praise, ensuring that they do their homework; and checking their student planner.
- Encouraging them to read around the subject.
- Their notes must be in order; discipline is essential.

### Resources

#### *Useful Websites*

For independent study the following websites are recommended:

- Decimal places and significant figures: <https://www.my-gcscience.com/decimal-places-significant-figures/>
- Describing, explaining and comparing graphs <https://www.my-gcscience.com/describing-explaining-comparing-graphs/>
- AQA specification: <https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF>
- BBC Bitesize: [http://www.bbc.co.uk/schools/gcsebitesize/science/add\\_aqa/](http://www.bbc.co.uk/schools/gcsebitesize/science/add_aqa/)
- Revision GCSE chemistry: <http://www.gcscience.com/pe.htm>



- Assessment resources:  
<https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462/assessment-resources>
- GCSE exam questions organised by Topics & difficulty:  
<https://www.savemyexams.co.uk/gcse-chemistry-aqa/>

### **Communications**

**Who do I contact if I have concerns about my child's progress in this subject?**

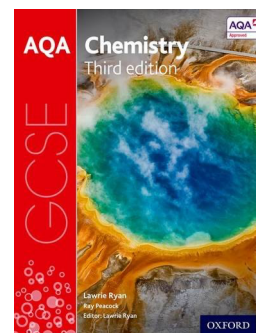
Please feel free to contact us at the school from 9.00-15:00 if you have any questions or concerns or contact me by email [alamgir.islam@alkhairschool.org.uk](mailto:alamgir.islam@alkhairschool.org.uk)



# Chemistry Overview

Term: Spring  
Year: 9  
Teacher: Mr Alimgar Islam

Textbook title: AQA GCSE Chemistry Oxford



What will we be covering this term?

## 1<sup>st</sup> Half Term:

**Energy changes:** - This topic is a key concept that students should be confident with. It has significant overlapping contents between Key Stage 3 and Key Stage 4 which will be covered this term. Students will be able to distinguish between exothermic and endothermic reactions on the basis of the temperature change of the surroundings.

**The Earth's atmosphere:** In this chapter, students will learn about the Earth's atmosphere. Students should be able to describe the human activities that are thought to cause global warming and be able to explain some of the effects this has on the climate of the Earth.

## 2<sup>nd</sup> Half Term:

**The Earth's resources:** In this chapter, students will be learnt about the difference between finite and renewable resources. Students' understanding of finite and renewable resources will be applied to the need to reuse and recycle, and they should be able to describe and evaluate ways of reducing the use of finite resources.

**Working scientifically:** In this chapter, students will develop their experimental skills. They should be able to plan experiments or devise procedures to make observations, produce or characterise a substance, test hypotheses, check data or explore phenomena. They should be able to make and record observations and measurements using a range of apparatus and methods. They should be able to interpret observations and other data (presented in verbal, diagrammatic, graphical, symbolic or numerical form), including identifying patterns and trends, making inferences and drawing conclusions.



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### How will my child be assessed this term?

There will be at least 2 assessed pieces this term.

In more detail;

**1<sup>st</sup> Assessment:** Energy changes & The Earth's atmosphere

**2<sup>nd</sup> Assessment:** The Earth's resources

At the end of the term there will summative exam that will test their knowledge for what they've covered during the course of the entire term.

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- BBC Bitesize: [http://www.bbc.co.uk/schools/gcsebitesize/science/add\\_aqa/](http://www.bbc.co.uk/schools/gcsebitesize/science/add_aqa/)



- Revision GCSE chemistry: <http://www.gcscience.com/pe.htm>
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# Chemistry Overview

Term: Summer  
Year: 9  
Teacher: Mr Alimgar Islam  
Textbook title: AQA GCSE Chemistry Oxford:



What will we be covering this term?

## 1<sup>st</sup> Half Term:

**Atomic structure II** - Students will learn about the development of the atomic model, providing ample opportunity to foster their Working scientifically skills - specifically around the development and use of models within science. Students will be able to describe the evidence that lead to each new stage in the development of the atomic model. Studying the development of the atomic model will lead into the model currently accepted for GCSE, and students will be able to use this to write and draw electronic structures up to element 20.

## 2<sup>nd</sup> Half Term:

**Structure and bonding** - In this chapter, students will study ionic and covalent bonding and learn how the different types of bonding in substances affect their bulk properties, such as the melting and boiling points. Students will build upon their understanding of the particle model, using this to explain the energy transfers involved when substances change state.

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### How will my child be assessed this term?

There will be at least 2 assessed pieces this term.

In more detail;

**1<sup>st</sup> Assessment:** Atomic structure II

**2<sup>nd</sup> Assessment:** Structure and bonding

At the end of the term there will summative exam that will test their knowledge for what they've covered during the course of the entire term.

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