



# Chemistry Overview

**Term:** Autumn  
**Year:** 11  
**Teacher:** Mrs Aziza Helaly  
**Textbook title:** AQA GCSE Chemistry Oxford



## What will we be covering this term?

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

**Using our resources:** In this chapter, students will develop their understanding of rusting from KS3 to understand how both water and air are required for iron to corrode. They should be able to explain how the two methods for preventing rusting - barrier methods and sacrificial methods - disrupt the oxidation of iron and prevent corrosion.

Students will also study the Haber process and how it is carried out economically on an industrial scale. This builds extensively upon knowledge of equilibrium conditions in *Chapter C8* and students should be able to explain why the industrial conditions for the Haber process are described as a compromise.

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

**Chemical calculations:** In this chapter, students will build upon their understanding of the structure of atoms and sub-atomic particles to understand relative atomic mass and relative formula mass. Students will be able to calculate the percentage yield and percentage atom economy of a reaction.

Students will apply their understanding of relative atomic mass, relative formula mass, and moles to concentrations. They will be able to carry out calculations with concentrations in  $\text{g/dm}^3$ . In addition, they will also carry out a titration as part of the required practical, with higher-tier students using their results to calculate the concentration of an unknown solution.

There will be an end of term exam based on what students have covered this half-term.

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

There will be at least 2 assessed pieces this term.

**Assessment 1:** Using our resources

**Assessment 2:** Chemical calculations

### 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-gcsescience.com/decimal-places-significant-figures/>
- Describing, explaining and comparing graphs <https://www.my-gcsescience.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.gcsescience.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

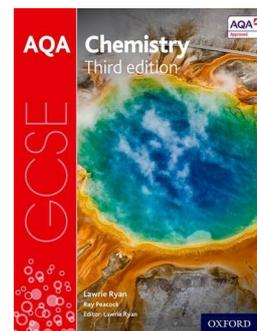
**Who do I contact if I have concerns about my child's progress in this subject?**

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 [aziza.helaly@alkhairschool.org.uk](mailto:aziza.helaly@alkhairschool.org.uk).



# Chemistry Overview

**Term:** Spring  
**Year:** 11  
**Teacher:** Mrs Aziza Helaly  
**Textbook title:** AQA GCSE Chemistry Oxford



## What will we be covering this term?

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

**Polymers:** In this chapter, students will learn about different types of manufactured polymers, including addition polymers and condensation polymers. Students should be able to identify an addition polymer from polymer and monomer diagrams - drawing the monomer from the polymer and the polymer from the monomer.

**Chemical analysis:** students will learn about various techniques for analyzing substances. Students should be able to describe experimental tests for positive and negative ions, and be able to write balanced symbol equations for them. Students will also study flame emission spectroscopy, and should be able to interpret instrumental results.

**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 should 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, and carry out life cycle assessments on products.

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

**The Earth's atmosphere:** In this chapter, students have learnt about the Earth's atmosphere. Students only need to be able to describe the volcanic activity theory of the origin of the atmosphere, but they should be able to interpret evidence concerning other theories, and be able to evaluate them.

Throughout this chapter, students will have many opportunities to develop their working scientifically skills, including evaluating models and interpreting and evaluating evidence for scientific theories.

There will be an end of term exam based on what students have covered this half-term.



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

There will be mock exams, these will include;

Chemistry Paper 1 - 1 hour 45 minutes

Chemistry Paper 2 - 1 hour 45 minutes

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- 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.gcsescience.com/pe.htm>
- Assessment resources: <https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462/assessment-resources>



- GCSE exam questions organised by Topics & difficulty:  
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# Chemistry Overview

**Term:** Summer  
**Year:** 11  
**Teacher:** Mrs Aziza Helaly  
**Textbook title:** AQA GCSE Chemistry Oxford:



## What will we be covering this term?

During this term, pupils would be revising for their GCSE exams and practising past paper questions.

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

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