

Supporting your child with their Science GCSEs

Mr C Holness

Director of Science

**SOUTH
HUNSLEY**

inspire · aspire

Year 11 Science Curriculum

- ❑ Finished teaching new content for combined classes
- ❑ Finishing teaching new content for separate classes this half term (with revision interleaved)
- ❑ Lesson time is used for **targeted** and **structured** revision based on class needs
- ❑ December Mock Exams – Paper 1
- ❑ Upcoming: in class assessment on Paper 2 content

Year 11 Tiers of Entry

- ☐ Based on performance in mocks and current assessment final tiers of entry will be decided for Year 11 students
- ☐ Combined students need to be entered for the same tier across all three sciences
- ☐ Separate students can be entered for different tiers
- ☐ Based on AQA advice:
 - ☐ Students estimated below a grade 5 should be entered for the Foundation Tier
 - ☐ Students estimated above a grade 5 should be entered for the Higher Tier

Answering Questions

0 3

This question is about making a soluble salt.

0 3 . 1

Plan a method to make pure, dry crystals of zinc chloride from zinc carbonate and a dilute acid.

[6 marks]

☐ 6 mark questions

☐ Bullet point responses – to the point

☐ Check the command word in the question

e.g. **Compare** – *give similarities and differences*

e.g. **Evaluate** – *give advantages and disadvantages*

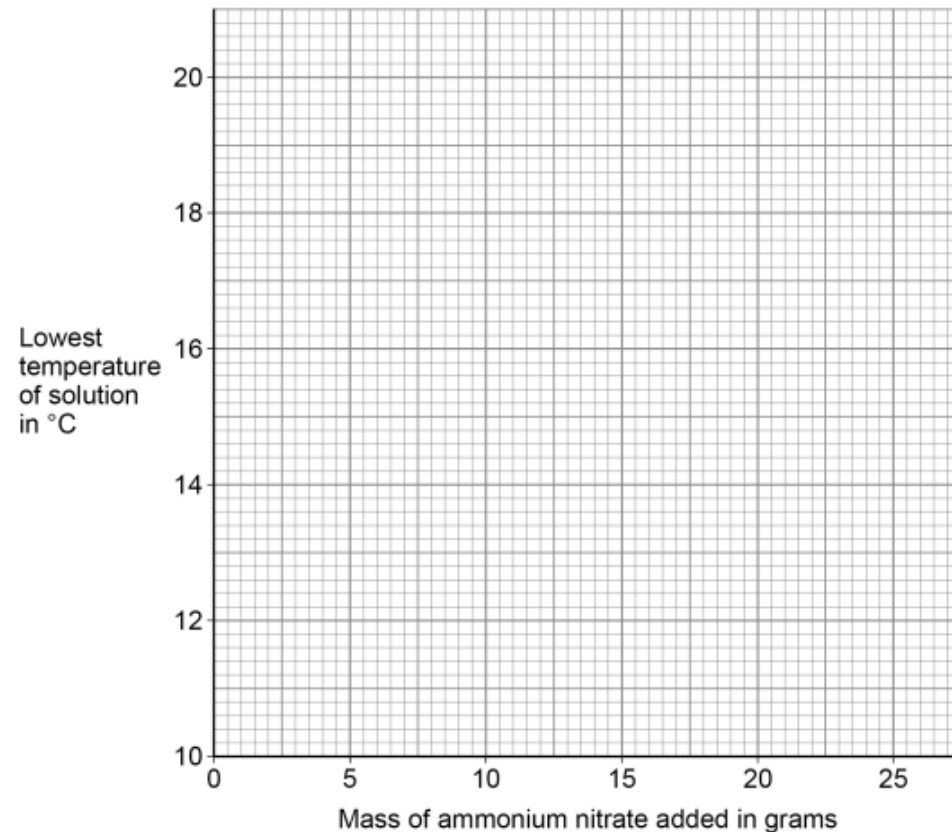
Answering Questions

0 2 . 2 Plot the data from Table 2 on Figure 2.

Draw a line of best fit.

[3 marks]

Figure 2



☐ Graph Drawing Questions

- ☐ Sharp pencil
- ☐ Clear points
- ☐ Line of best fit equal distribution of points

Answering Questions

0 5 . 5 A student does a titration using sodium carbonate solution and nitric acid.

The equation for the reaction is:



25.0 cm³ of 0.124 mol/dm³ sodium carbonate solution is neutralised by 23.6 cm³ of nitric acid.

Calculate the concentration of the nitric acid.

Give your answer to 3 significant figures.

You should calculate:

- the number of moles of sodium carbonate in 25.0 cm³ of the solution
- the number of moles of nitric acid in 23.6 cm³ of the nitric acid
- the concentration of the nitric acid in mol/dm³.

[5 marks]

Concentration (3 significant figures) = _____ mol/dm³

☐ Calculations Questions

☐ Show all working out

☐ Write all numbers down

☐ Write down equations used

Revising for Science

Learn and be able to **recall** key facts, terminology and definitions

- ☐ Use of revision guides
- ☐ Flashcards (creating own or App)
- ☐ BBC Bitesize
- ☐ GCSE Pod
- ☐ Tassomai
- ☐ YouTube Videos – in particular “Cognito Science”



Learn key details in **required practical** methods

- ☐ Use of revision guides
- ☐ YouTube Videos – Malmesbury Science
- ☐ Required Practical Guides



Apply knowledge to different situations

- ☐ Use of workbooks
- ☐ Past paper questions (Physics and Maths tutor website)
- ☐ Tassomai

Accessing Revision Resources



SHS25 Year 11 - All Students



▼ Main Channels

General

English

Maths

Science

Revision Resources

- **Physics and Maths Tutor**
- *Resources for Biology, Chemistry and Physics*

Notes

- Definitions
- Flashcards

Summary Notes

- 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

Mind Maps

- 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

Videos

- 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

PMT Shop

- Printed AQA Chemistry Resources

Questions by Topic

2018-2021 papers

- 1.1 A Simple Atomic Model MS
- 1.1 A Simple Atomic Model QP
- 1.2 The Periodic Table MS
- 1.2 The Periodic Table QP
- 1.3 Properties of Transition Metals MS (separate only)
- 1.3 Properties of Transition Metals QP (separate only)

pre-2018 papers

Questions selected for the current specification

- 1.1 A Simple Atomic Model 1 MS
- 1.1 A Simple Atomic Model 1 QP
- 1.1 A Simple Atomic Model 2 MS
- 1.1 A Simple Atomic Model 2 QP
- 1.1 A Simple Atomic Model 3 MS
- 1.1 A Simple Atomic Model 3 QP
- 1.2 Periodic Table 1 MS
- 1.2 Periodic Table 1 QP
- 1.2 Periodic Table 2 MS
- 1.2 Periodic Table 2 QP
- 1.2 Periodic Table 3 MS
- 1.2 Periodic Table 3 QP
- 1.3 Properties of Transition Metals 1 MS
- 1.3 Properties of Transition Metals 1 QP
- 1.3 Properties of Transition Metals 2 MS
- 1.3 Properties of Transition Metals 2 QP
- 1.3 Properties of Transition Metals 3 MS
- 1.3 Properties of Transition Metals 3 QP

- **Department Padlet Sites**
- *Past Paper Questions, Revision Placemats, Video Links, Links to access are on Limitless Potential and Teams*

Required Practicals

Required Practicals

Paper 1:

- RP1 - Making Salts
 - RP2 - (Chem Only) Titrations
 - RP3 - Electrolysis
 - RP4 - Temperature Changes
- #### Paper 2:
- RP5 - Rates of Reaction
 - RP6 - Chromatography
 - RP7 - (Chem Only) Identifying Ions
 - RP8 - Water Purification

RP1 - Making Salts



Making Salts - GCSE Science Required Practical

Note: Normally you partially evaporate the solution and leave the crystals to form over at least 24 hours

Paper 1

Further Paper 1 Exam Questions and Mark Scheme (Separate Chemistry)

Chemistry (H)

Paper 1

DOC **Practice paper**
SCH Paper 1 Practice Paper 2019 and MS

Further Paper 1 Exam Questions and Mark Scheme (Trilogy Higher)

Combined Chemistry (H)

Paper 1

Paper 2

Paper 2 Chemistry Key Questions

AQA Combined Science GCSE Trilogy
Chemistry Paper 2 A01 Questions
No loss of mass of reactants
1. How do you calculate the rate of a chemical reaction?
2. A chemical reaction produces 20g of hydrogen in 100s. What is the mean rate of the reaction?
3. How can you use a catalyst to speed up a chemical reaction?
4. State 5 factors that can affect the rate of a chemical reaction.
5. The graph of Time (Seconds) against Time (Seconds) shows the effect of the rate of the chemical reaction.
6. What is a catalyst?
7. What is the collision theory of chemical reactions?
8. What is a reversible reaction?
9. Any reversible reaction is a chemical reaction?
10. What is a reversible reaction?
11. What is a reversible reaction?
12. What is a reversible reaction?
13. What is a reversible reaction?
14. What is a reversible reaction?
15. What is a reversible reaction?
16. What is a reversible reaction?
17. What is a reversible reaction?
18. What is a reversible reaction?
19. What is a reversible reaction?
20. What is a reversible reaction?

Further Paper 2 Exam Questions and Mark Scheme (Higher)

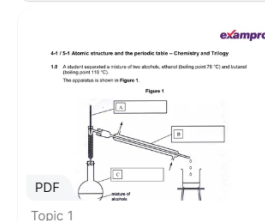
C2H 150
Q1
A student has many small beakers of the same volume, given electrical conductivity. They are used to test the conductivity of various solutions.
The main data for the selection of the solutions are shown in the flow chart.
Flow chart:
1. A solution of sodium chloride (NaCl) is added to a beaker.
2. A solution of sodium sulfate (Na2SO4) is added to a beaker.
3. A solution of sodium carbonate (Na2CO3) is added to a beaker.
4. A solution of sodium bicarbonate (NaHCO3) is added to a beaker.
5. A solution of sodium hydroxide (NaOH) is added to a beaker.
6. A solution of sodium nitrate (NaNO3) is added to a beaker.
7. A solution of sodium acetate (CH3COONa) is added to a beaker.
8. A solution of sodium formate (HCOONa) is added to a beaker.
9. A solution of sodium oxalate (Na2C2O4) is added to a beaker.
10. A solution of sodium malonate (Na2C3H2O4) is added to a beaker.
11. A solution of sodium succinate (Na2C4H4O4) is added to a beaker.
12. A solution of sodium glutarate (Na2C5H7O4) is added to a beaker.
13. A solution of sodium adipate (Na2C6H8O4) is added to a beaker.
14. A solution of sodium pimelate (Na2C7H10O4) is added to a beaker.
15. A solution of sodium suberate (Na2C8H14O4) is added to a beaker.
16. A solution of sodium sebacate (Na2C10H18O4) is added to a beaker.
17. A solution of sodium dodecate (Na2C12H22O4) is added to a beaker.
18. A solution of sodium tetradecate (Na2C14H26O4) is added to a beaker.
19. A solution of sodium hexadecate (Na2C16H32O4) is added to a beaker.
20. A solution of sodium octadecate (Na2C18H36O4) is added to a beaker.
DOC
C2H Practice paper

Topic 1 - Atomic Structure

Topic 1




Atomic structure revision CHECKED
Atomic Structure



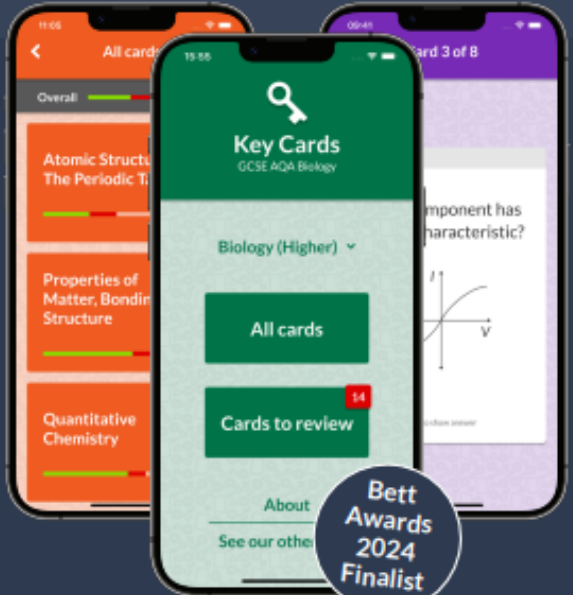
Topic 1

CHEMISTRY: REVISION: 4.1 Atomic structure and the periodic table


Revision Resources


 **Key Cards GCSE AQA Science Revision Apps**
by Simply Effective Education

It's time to close the books and open the apps



Bett Awards 2024 Finalist

 **Download on the App Store**

 **GET IT ON Google Play**

Tap these to get the apps or search for Key Cards

 **Totally Free!**

 **GCSE AQA Biology**

★★★★★

"helped me to achieve a grade 99"

App Store review

 **GCSE AQA Chemistry**

★★★★★

"the best chemistry revision app out there"

Google Play review

 **GCSE AQA Physics**

★★★★★

"I can finally understand physics"

Google Play review

GCSE Science Exam Dates 2025

Tuesday 13 May 2025

Biology Paper 1

1. Cell Biology
2. Organisation
3. Infection and Response
4. Bioenergetics

Monday 19 May 2025

Chemistry Paper 1

1. Atomic Structure & The Periodic Table
2. Bonding and Structure
3. Quantitative Chemistry
4. Chemical Changes
5. Energy Changes

Thursday 22 May 2025

Physics Paper 1

1. Energy
2. Electricity
3. Particle Model of Matter
4. Atomic Structure

Monday 9 June 2025

Biology Paper 2

5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

Friday 13 June 2025

Chemistry Paper 2

6. Rates and Equilibrium
7. Organic Chemistry
8. Chemical Analysis
9. Chemistry of the Atmosphere
10. Using Resources

Monday 16 June 2025

Physics Paper 2

5. Forces
6. Waves
7. Magnetism and Electromagnetism
8. Space (Separate Only)