

What can you do to help your child succeed in their science GCSE

“I don’t know what to do”

Where to find resources

“I don’t know what to do first”

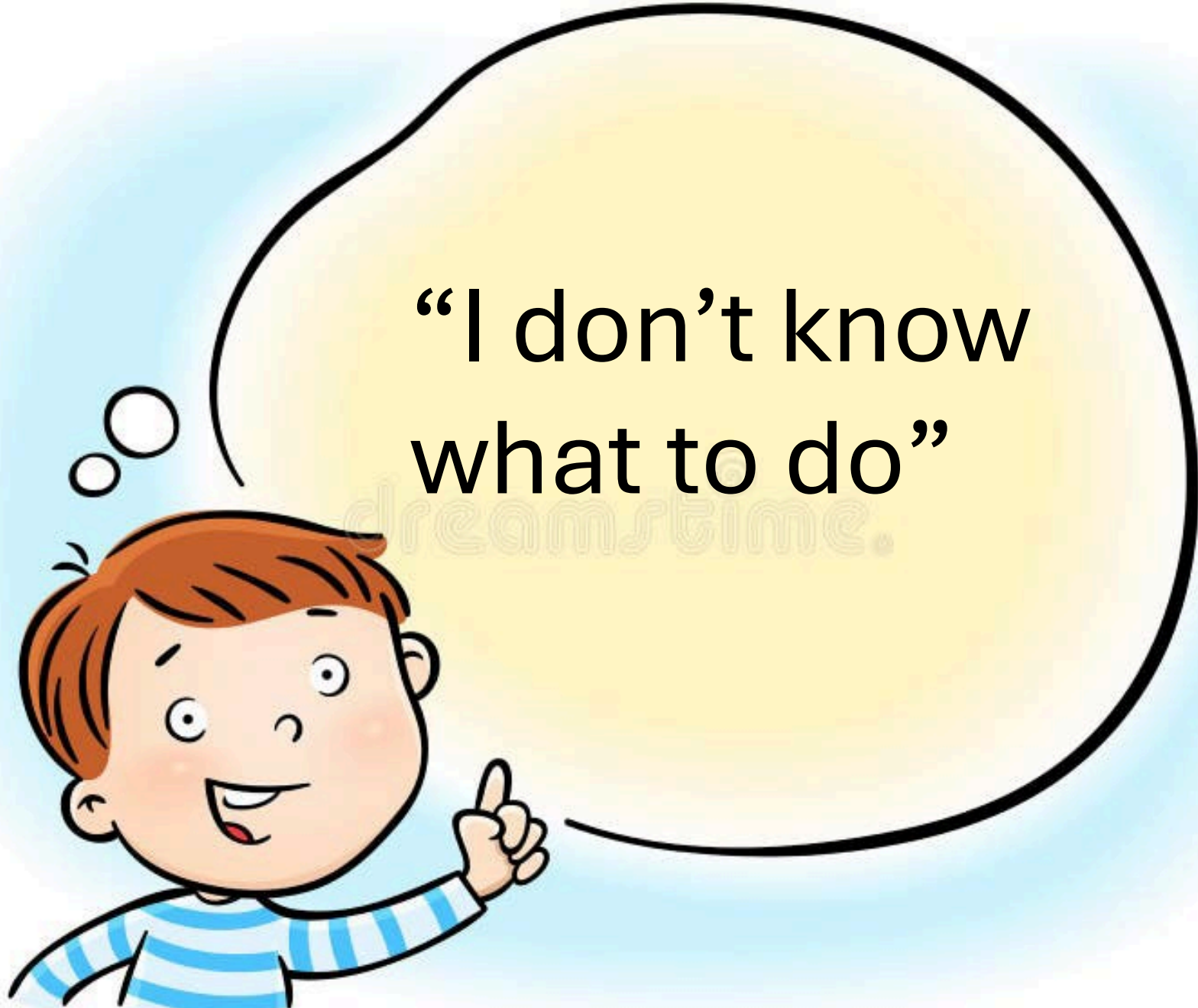
What you should be doing to revise

“I don’t know where to find resources”

What should their focus be

“I don’t know how to revise science”

“I don’t know what to focus on”



“I don't know
what to do”

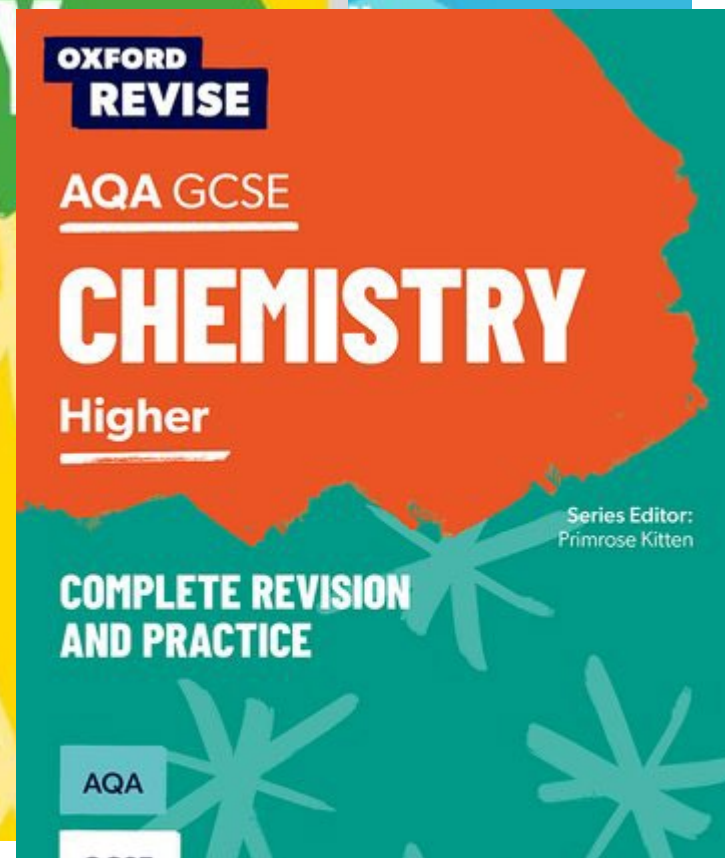
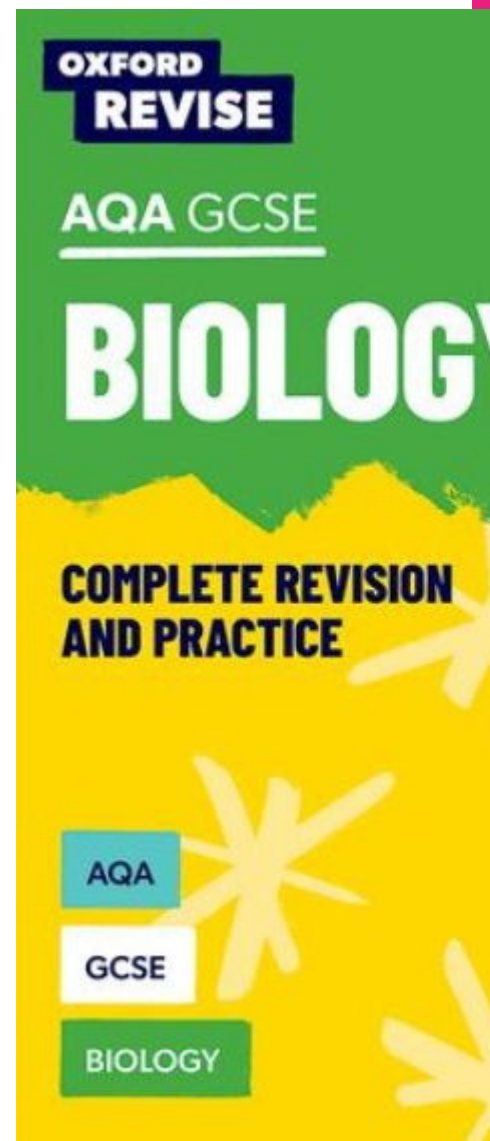
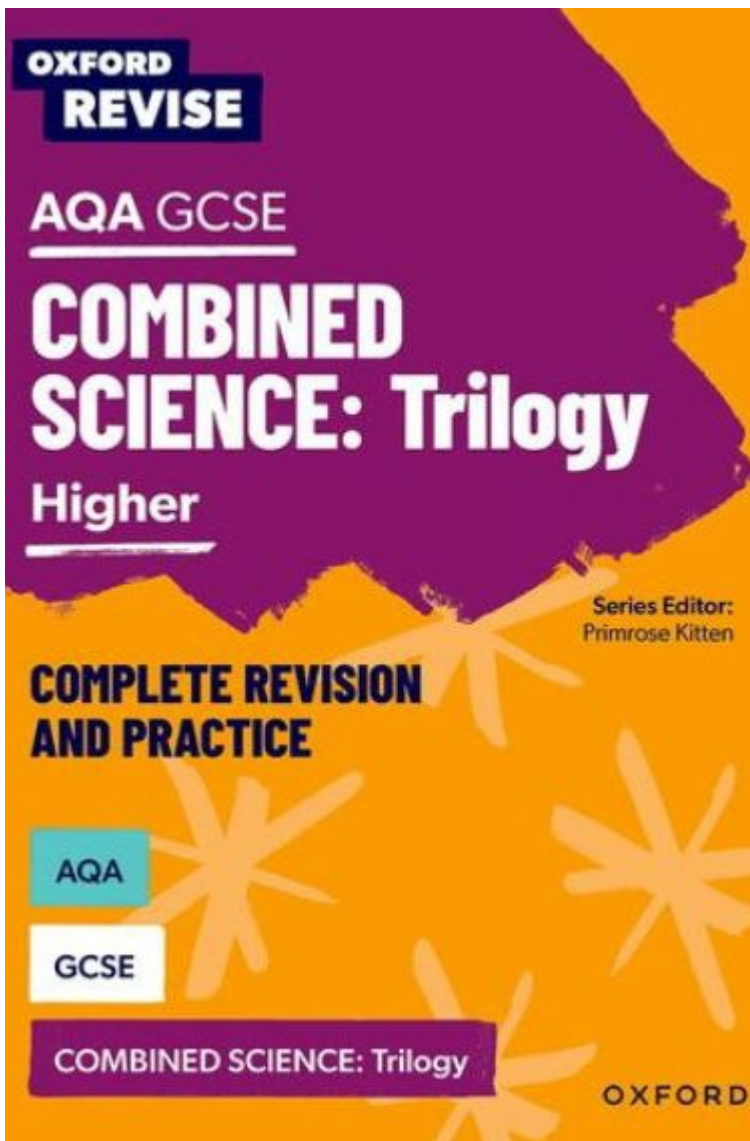
dreamstime.


Exam board is AQA

The tier and if they are triple or combined effect the content examined.

The logo for AQA (Assessment and Qualifications Alliance) features the letters 'AQA' in a bold, dark blue, sans-serif font. A red diagonal bar is positioned behind the letter 'Q', extending from the bottom right towards the top left.

Questions matter





“I don’t know
where to find
resources”



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9-1 GCSEs (UK)

| AQA | Edexcel | OCR | OCR | Eduqas |
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| Biology 2 | Biology 2 | Paper 1 (F) Biology | Paper 1 | Component 2 |
| Chemistry 1 | Chemistry 1 | Paper 2 (F) Biology | Paper 2 | Component 3 |
| Chemistry 2 | Chemistry 2 | Paper 3 (F) Chemistry | Paper 3 | Component 4 |
| Physics 1 | Physics 1 | Paper 4 (F) Chemistry | Paper 4 | |
| Physics 2 | Physics 2 | Paper 5 (F) Physics | Paper 5 | WJEC |
| | | Paper 6 (F) Physics | Paper 6 | Unit 1 |
| | | | Paper 7 | Unit 2 |
| | | | Paper 8 | |

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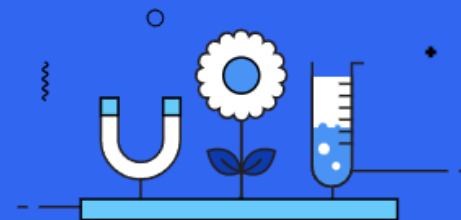
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OCR 21st Century

OCR Gateway

Language:

English

A cartoon illustration of a young boy with short brown hair, wearing a blue and white striped shirt. He is smiling and pointing his right index finger towards a large, yellow speech bubble. The speech bubble has a black outline and contains the text "I don't know where to start". The background is a light blue circular gradient. There are also two small white circles above the boy's head, suggesting thought or movement.

“I don't know
where to start”

dreamstime.

Recall key definitions, systems, processes.

Model Exam Question Booklet Combined Science

This booklet is split into 3 parts.

Part 1

A selection of short response questions and answers that are likely to come in the exam paper. Spend time learning the answers to these questions, for example you could produce flash cards. You should self quiz yourself on these questions regularly!

Part 2

Selection of extended response questions (4 to 6 marks) that are likely to be on your paper this year, either because they have not been assessed in the last couple of years. or

| Physics Paper 2 | |
|----------------------|-------------------|
| Topics in the Paper: | |
| P8 | Forces |
| P9 | Motion |
| P10 | Forces and Motion |
| P12 | Waves |
| P13 | Electromagnetic |

P8: Forces

1. What is the difference between scalar and vector quantities?
2. How can a vector quantity be represented?
3. What is a force?
4. What are examples of contact forces?
5. What are examples of non-contact forces?
6. What type of quantity is force?
7. What is weight?
8. What causes the force of gravity close to Earth?
9. What does the weight of an object depend on?
10. What is the equation that links gravitational field strength, mass and weight?
11. What is the unit for weight?
12. What is the unit for mass?
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14. What is an objects centre of mass?
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17. When is work done on an object?
18. What is the equation that links distance, force and work done?
19. What is the unit for work done?
20. What is the unit for force?
21. What is the unit for distance?
22. How many newton-metres is 1 joule?
23. What is the relationship between the extension of an elastic object and the force applied?
24. What is the equation that links extension, force and spring constant?
25. What is the unit for spring constant?
26. What is the unit for extension?
27. What happens when a force squashes a spring?

1. Scalar quantities have magnitude only, vector quantities have magnitude and direction.
2. An arrow.
3. A push or pull that acts on an object due to the interaction with another object.
4. Friction, air resistance, tension, normal contact forces.
5. Gravitational force, electrostatic force and magnetic force.
6. Vector
7. The force acting on an object due to gravity.
8. The gravitational field around the Earth.
9. The gravitational field strength at the point where the object is at.
10. $\text{Weight} = \text{Mass} \times \text{Gravitational Field Strength}$
11. Newtons, N
12. Kilograms, kg
13. Gravitational Field Strength, N/kg
14. The point at which the weight of an object acts through.
15. A Newtonmeter
16. It is a single force that is the result of all the different forces acting on the object.
17. When a force causes a displacement of an object.
18. $\text{Work Done} = \text{Force} \times \text{Distance}$
19. Joules, J
20. Newtons, N
21. Metres, m
22. 1 newton-metre
23. It is directly proportional, provided the limit of proportionality is not exceeded.
24. $\text{Force} = \text{Spring Constant} \times \text{Extension}$
25. Newtons per metre, N/m
26. Metres, m
27. Work is done and elastic potential energy is stored in the spring.

Recall key definitions systems, processes.

Flash cards,

Look cover write check,

Verbal tests

P8: Forces

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Cover answers

Then check

| | |
|--------------|---|
| Topic | P8 Forces in Balance |
| Qu | <ol style="list-style-type: none"> 1. Explain you would determine the centre of mass of a piece of card. 2. Explain how you could check that the centre of mass point is accurate. 3. Explain when an object will topple over. |

Model Exam Question Booklet

Combined Science

Cover the answers, use the hints and tips, check your answer

Repeat!

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Part 1

A selection of short response questions and answers that are likely to come in the exam paper. Spend time learning the answers to these questions, for example you could produce flash cards. You should self quiz yourself on these questions regularly!

Part 2

Selection of extended response questions (4 to 6 marks) that are likely to be on your paper this year, either because they have not been assessed in the last couple of years, or because they come up most years in exams. Prepare and practice your responses to these questions.

Part 3

Required practical section. In this section you will find step by step guidance for each practical. This is followed by a page of short response questions and answers to learn for each of the practicals. There are also some extended response questions (4 to 6 marks).

Physics Paper 2

Topics in the Paper:

| | |
|-------------|-----------------------|
| P8 | Forces |
| P9 | Motion |
| P10 | Forces and Motion |
| P12 | Waves |
| P13 | Electromagnetic Waves |
| P15 | Electromagnetism |
| RP18 | Force and Extension |
| RP19 | Acceleration |
| RP20 | Waves |
| RP21 | Infrared Radiation |

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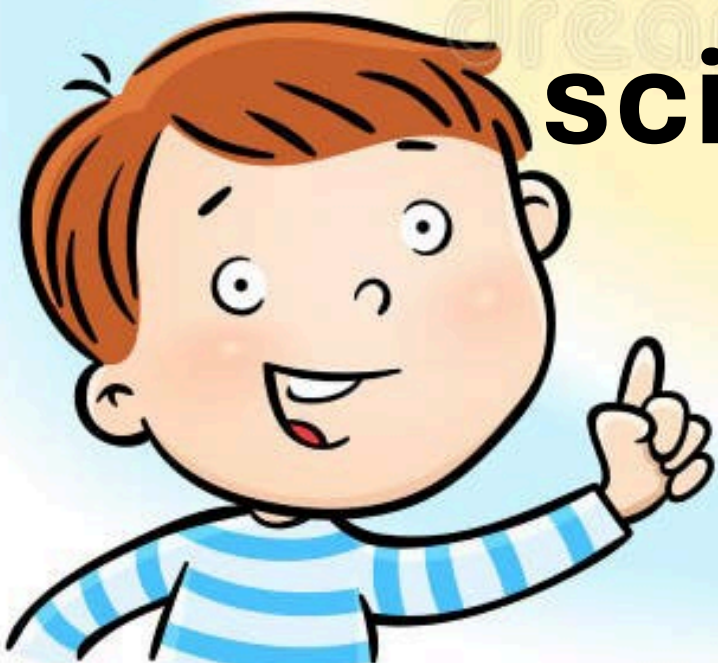
**“I don’t know
what to focus
on”**

| AQA Chemistry (8462) from 2016 Topics C4.1 Atomic structure and the periodic table | | | | |
|---|---|---|---|---|
| Topic | Student Checklist | R | A | G |
| 4.1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes | State that everything is made of atoms and recall what they are | | | |
| | Describe what elements and compounds are | | | |
| | State that elements and compounds are represented by symbols; and use chemical symbols and formulae to represent elements and compounds | | | |
| | Write word equations and balanced symbol equations for chemical reactions, including using appropriate state symbols | | | |
| | HT ONLY: Write balanced half equations and ionic equations | | | |
| | Describe what a mixture is | | | |
| | Name and describe the physical processes used to separate mixtures and suggest suitable separation techniques | | | |
| | Describe how the atomic model has changed over time due to new experimental evidence, inc discovery of the atom and scattering experiments (inc the work of James Chadwick) | | | |
| | Describe the difference between the plum pudding model of the atom and the nuclear model of the atom | | | |
| | State the relative charge of protons, neutrons and electrons and describe the overall charge of an atom | | | |
| | State the relative masses of protons, neutrons and electrons and describe the distribution of mass in an atom | | | |
| | Calculate the number of protons, neutrons and electrons in an atom when given its atomic number and mass number | | | |
| | Describe isotopes as atoms of the same element with different numbers of neutrons | | | |
| | Define the term relative atomic mass and why it takes into account the abundance of isotopes of the element | | | |
| | Calculate the relative atomic mass of an element given the percentage abundance of its isotopes | | | |
| Describe how electrons fill energy levels in atoms, and represent the electron structure of elements using diagrams and numbers | | | | |
| periodic table | Recall how the elements in the periodic table are arranged | | | |
| | Describe how elements with similar properties are placed in the periodic table | | | |
| | Explain why elements in the same group have similar properties and how to use the periodic table to predict the reactivity of elements | | | |
| | Describe the early attempts to classify elements | | | |
| | Explain the creation and attributes of Mendeleev's periodic table | | | |
| | Identify metals and non-metals on the periodic table, compare and contrast their properties | | | |
| | Explain how the atomic structure of metals and non-metals relates to their position in the periodic table | | | |
| | Describe noble gases (group 0) and explain their lack of reactivity | | | |
| | Describe the properties of noble gases, including boiling points, predict trends down the group and | | | |

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If they struggle with the topic recall question's then they should focus some revision on that area.

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**“I don’t know
how to revise
science”**

Make a summary of
the topic

See how much of the
summary you can recall

Try questions without
summary

Try some questions
on that topic with the
summary to help

Improve summary
based on the
questions

Have resources ready, an areas to revise ready. Getting out pens and paper and resources does not count as revision time

You need to be organised to be efficient with your time.





Good luck!