

# Isaac Physics Teacher CPD

Using [isaacphysics.org](https://isaacphysics.org) for A Level Chemistry and Thermal Physics resources



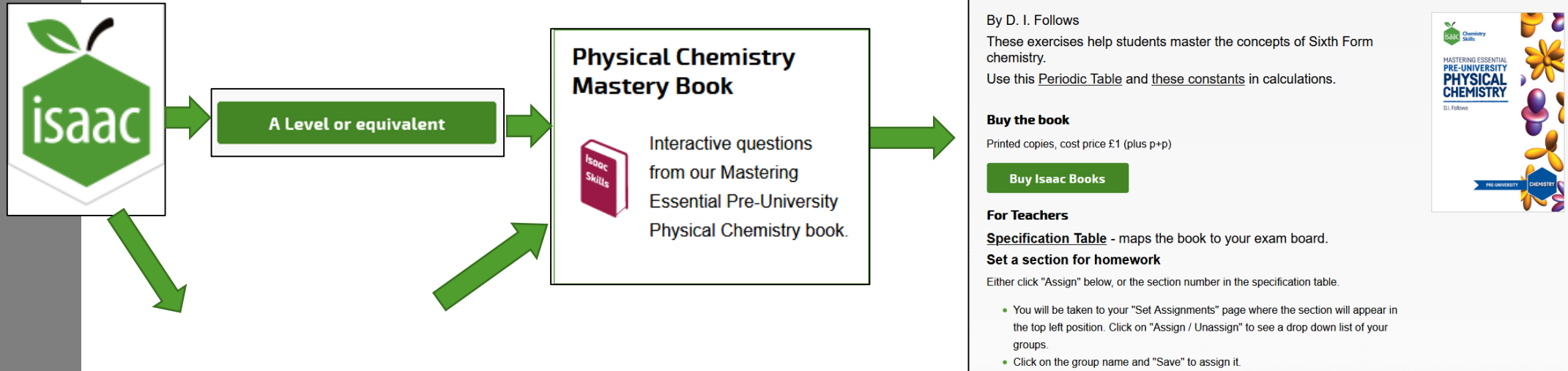
# This session's objectives:

- Finding **Isaac Chemistry resources**: <https://isaacphysics.org/chemistry>
- Using the **Syllabus maps** to find syllabus-appropriate book questions: [https://isaacphysics.org/pages/syll\\_map\\_chem](https://isaacphysics.org/pages/syll_map_chem)
- Using the **Boards by Topic** page to find suitable questions on a given topic
- Using the **Question Finder** to select questions by topic and level
- Using the **Chemistry Equation Editor**: <https://youtu.be/zeBHUKVeKPE>
  - [https://isaacphysics.org/questions/ch\\_editor\\_1](https://isaacphysics.org/questions/ch_editor_1)
  - [https://isaacphysics.org/questions/ch\\_editor\\_2](https://isaacphysics.org/questions/ch_editor_2)
- Using the **Structural Formula Editor**: [https://jsme-editor.github.io/dist/JSME\\_test.html](https://jsme-editor.github.io/dist/JSME_test.html)
- Your questions!



# Using the Syllabus Maps to find syllabus-appropriate book questions

› Follow this path to find the specification table for A Level:



Apple/Learn A Level or Learn/A Level Resources/Physics Chemistry Mastery Book/Specification table  
[https://isaacphysics.org/pages/syll\\_map\\_chem](https://isaacphysics.org/pages/syll_map_chem) (copy into SOW for ref)  
7 English and Welsh specifications are here – we are planning to include the Scottish and Irish specifications as soon as possible



# A Level Physical Chemistry Syllabus Maps

- › Find syllabus-appropriate questions:

Home > Mastering Physical Chemistry Syllabus Maps

## Mastering Physical Chemistry Syllabus Maps

Link to paste

[https://isaacphysics.org/pages/syll\\_map\\_chem](https://isaacphysics.org/pages/syll_map_chem)



You can set each page of the book as homework in 2 clicks! When logged on as a teacher, click on the page you wish to assign (e.g. A1) and you will be taken to your set assignments page with A1 as the top left box ready to assign to as many groups as you wish.

&nbsp;	&nbsp;	OCR A (H032/H432)	OCR B (H033/433)	AQA	Edexcel	Eduqas	CIE Pre-U	IE Chem
A	Formulae & Equations							
A1	Empirical formulae	2.1.3	EL(b)	3.1.2.4	Topic 5	C1.3	A4.1	1.
A2	A <sub>r</sub> & M <sub>r</sub> and molecular formula	2.1.3	EL(a)	3.1.1.2 / 3.1.2.1	Topic 1	C1.3	A4.1	1.



# Using the Boards by Topic page to find questions

- › [https://isaacphysics.org/pages/boards\\_by\\_topic\\_chem](https://isaacphysics.org/pages/boards_by_topic_chem)
- › [rb.gy/oqbrq](https://rb.gy/oqbrq)



**A Level (only A Level boards are available for chemistry currently)**

Topic	What it contains	Link
<b>Stoichiometry and Inorganic Chemistry</b>		
<a href="#">Atomic Structure</a>	7×P1, 1×P2; MCQ, short-answer, drag-and-drop	<a href="#">View board</a>
<a href="#">Electron Configurations</a>	7×P1, 1×P2; MCQ, short-answer, drag-and-drop	<a href="#">View board</a>
<a href="#">Mass Spectrometry</a>	4×P1, 2×P2, 1×C2; quick, MCQ, numeric, short-answer	<a href="#">View board</a>
<a href="#">Moles &amp; Chemical Formulae</a>	5×P1, 3×P2; numeric, chemistry	<a href="#">View board</a>
<a href="#">Chemical Equations &amp; Stoichiometry</a>	8×P1, 1×P2; numeric, chemistry	<a href="#">View board</a>
<a href="#">Further Stoichiometry (incl. Titrations)</a>	7×P1, 2×P2, 1×C2	<a href="#">View</a>



# Question Finder

Use the Question Finder to create gameboards

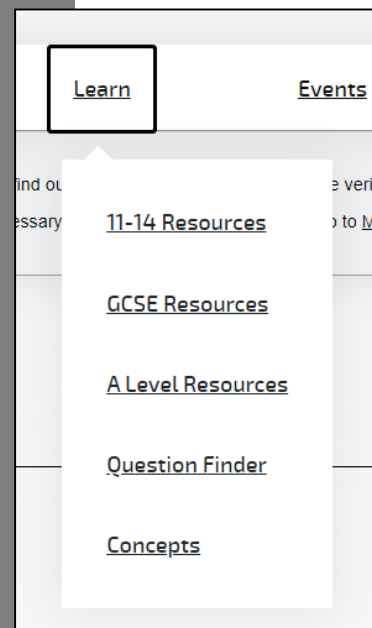
## Route

- Learn/Question finder

Help Video



[https://youtu.be/9docn\\_H8hh4](https://youtu.be/9docn_H8hh4)



Topics:

**Click these buttons to choose your question gameboard**

I am interested in stage... ?

A Level

I would like questions for... ?

Practice

P1 P2 P3

Challenge

C1 C2 C3

Topics: 2

Physics Maths Chemistry

Foundations Physical Inorganic Organic Analytical

Functional Groups Isomerism Organic Reactions Aromaticity Reactions (aromatics)

**Scroll to questions...**

**Shuffle Questions**

1 Use the dropdown to select a stage (GCSE, A Level, Further A, University)

3 Select difficulty levels.  
Practice: directly apply 1 idea  
Challenge: Apply multiple ideas, use creativity

2 Select a subject, field and topic.



# Equation editor: Chemistry

Help Video



<https://youtu.be/zeBHUKVeKPE>

- › Use mouse/touch to answer symbolic questions

Write reduction half-equations to show:

Part A Iron(III)

Reduction of iron(III) to iron metal

Click to enter your answer

Check my answer

numbers

elements & particles

states

operators, fractions, other symbols

e

1 2 3 H He Li (aq) (g) (l) → ⇌ +

$\text{Fe}^{2+} + 2 \text{e}^- \rightarrow$

?

Reduction of iron(III) to iron metal

HIDE QUESTION

$\text{Fe}^{2+} + 2\text{e}^-$

>

# Structural Formula editor

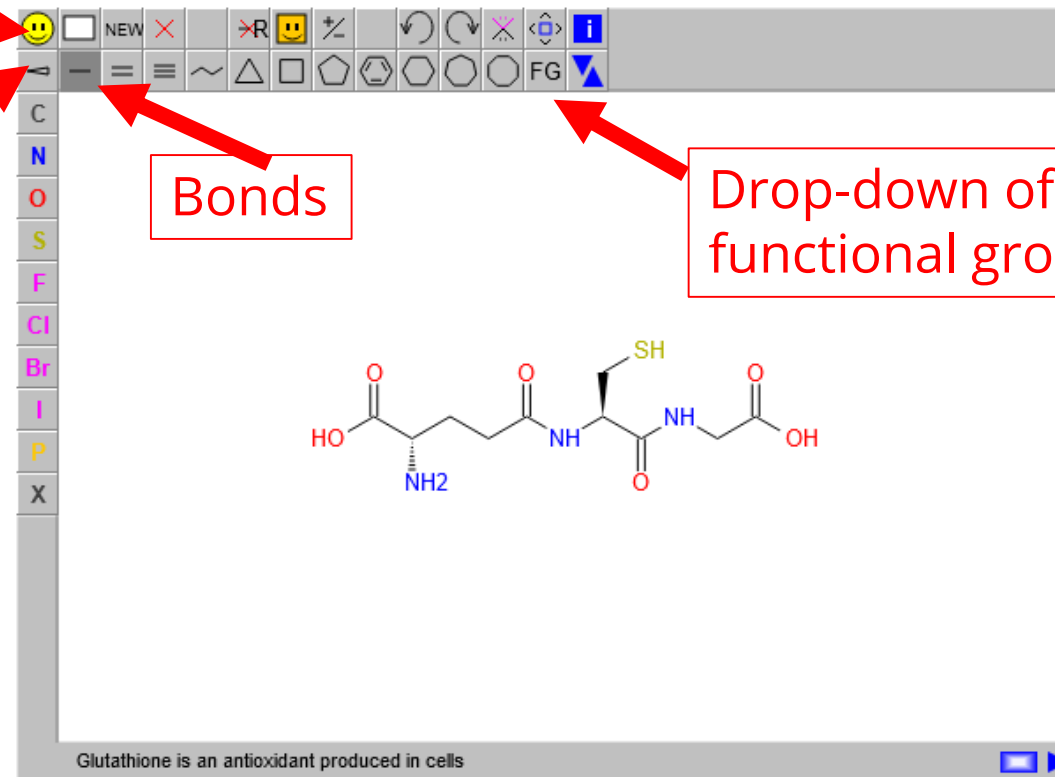
JSME test page

Click to show smile string  
(paste into answer box)

Can show  
stereoisomers

Bonds

Drop-down of  
functional groups



Old look

Turn on antialias

Turn on antialias for the molecular drawing area

Drawing area line width: 2.0

Drawing area font size: 12

Drawing area scale: 1.5

Non drawing area scale: 1.5

Set another background color for the GUI frame and the dialog boxes

New look

Turn off antialias

Turn off antialias for the molecular drawing area

set line width

set font size

set scale get scale

set scale get scale

set predefined color