

PEARSON EDEXCEL INTERNATIONAL GCSE (9–1)

CHEMISTRY

Welcome to Pearson

Event code: 4CH1-201F2

First teaching in 2017, first assessment in 2019



Welcome to today's event

- Introduction to your trainer
- Housekeeping
- What's in your pack?



Today's Agenda

10.00 – 10.10	Welcome and introductions
10.10 – 11.15	Session 1
11.15 – 11.30	MORNING BREAK
11.30 – 12.45	Session 2 (Part 1)
12.45 – 13.45	LUNCH
13.45 – 14.45	Session 2 (Part 2)
14.45 – 15.00	AFTERNOON BREAK
15.00 – 16.00	Session 3



Aims and objectives

- To gain an understanding about how the qualification is devised
- To understand the content of the qualification
- To understand the assessment of the qualification and how to cover the content
- To explore how to plan the course
- To network and share ideas with other teachers



SESSION 1

**Understanding how the
qualification and assessment are
devised**



Welcome to Pearson Edexcel

Welcome to Pearson Edexcel, the world's leading learning company and the UK's largest awarding body.

We set the standard for worldwide recognised qualifications, built on the UK educational system and accepted by universities worldwide.

We have a simple mission:

to help make a measurable impact on improving people's lives through learning.

*“We judge ourselves –
and invite others to judge
us – not by the products
that we make but by the
impact on learners.”*

John Fallon,
Chief Executive Officer,
Pearson



About Pearson Edexcel?

- As the UK's largest awarding organisation, we are best placed to provide qualifications that are most closely aligned to the British educational system.
- We are the most reliable awarding organisation in the UK, recognised and trusted by educators, learners and employers to provide high quality qualifications.
- By helping you to realise student potential, you can prepare and empower all your students to progress to further education, university and employment.
- Our technology capability allows us to provide you with more advanced support services, tools and resources to make life easier for school leaders, teachers and students.
- Pearson Edexcel are leading the way, challenging thinking and creating new ideas so you can be confident our qualifications will always be world-class.



Key documents

There are two key documents needed to deliver the course:

- The specification
- The SAMS



What is the specification?

- The specification is the main document you need to teach the course.
- It outlines the aims of the course, the content you **MUST** cover and all the information you need about assessing your students.
- This document can be found on our website.



What are the SAMS?

- SAMS is short for Sample Assessment Materials.
- This document is just as important as the specification.
- The SAMS are examples of the question papers and mark schemes and show the question types and how they will be marked by the examiners.
- We base all of our future papers and assessments on these Sample Assessment Materials.



Overview of the specification

Principles of chemistry	Inorganic chemistry	Physical chemistry	Organic chemistry
<ul style="list-style-type: none">(a) States of matter(b) Elements, compounds and mixtures(c) Atomic structure(d) The Periodic Table(e) Chemical formulae, equations and calculations(f) Ionic bonding(g) Covalent bonding(h) Metallic bonding(i) Electrolysis	<ul style="list-style-type: none">(a) Group 1 (alkali metals) – lithium, sodium and potassium(b) Group 7 (halogens) – chlorine, bromine and iodine(c) Gases in the atmosphere(d) Reactivity series(e) Extraction and uses of metals(f) Acids, alkalis and titrations(g) Acids, bases and salt preparations(h) Chemical tests	<ul style="list-style-type: none">(a) Energetics(b) Rates of reaction(c) Reversible reactions and equilibria	<ul style="list-style-type: none">(a) Introduction(b) Crude oil(c) Alkanes(d) Alkenes(e) Alcohols(f) Carboxylic acids(g) Esters(h) Synthetic polymers



Paper-by-paper breakdown

Paper 1	Paper 2
<p>Externally assessed</p> <ul style="list-style-type: none">• Availability: January and June <p>Content summary</p> <p>Assesses core content that is not in bold and does not have a 'C' reference. Questions may come from any topic area across the specification.</p> <ol style="list-style-type: none">1 Principles of chemistry2 Inorganic chemistry3 Physical chemistry4 Organic chemistry	<p>Externally assessed</p> <ul style="list-style-type: none">• Availability: January and June <p>Content summary</p> <p>Assesses all the content, including content that is in bold and has a 'C' reference. Questions may come from any topic area across the specification. Bold statements cover some sub-topics in greater depth.</p> <ol style="list-style-type: none">1 Principles of chemistry2 Inorganic chemistry3 Physical chemistry4 Organic chemistry



Paper-by-paper breakdown

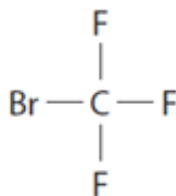
Paper 1	Paper 2
Assessment <ul style="list-style-type: none">• The paper is assessed through a 2-hour written examination paper set and marked by Pearson.• The total number of marks is 110.• A mixture of different question styles, including multiple-choice questions, short-answer questions, calculations and extended open-response questions.• A calculator may be used in the examinations. <ul style="list-style-type: none">• 61.1% of the total International GCSE	Assessment <ul style="list-style-type: none">• The paper is assessed through a 1-hour and 15-minute written examination paper set and marked by Pearson.• The total number of marks is 70.• A mixture of different question styles, including multiple-choice questions, short-answer questions, calculations and extended open-response questions.• A calculator may be used in the examinations. <ul style="list-style-type: none">• 38.9% of the total International GCSE



How is the content assessed?

Here are two questions from May 2019 Paper 1C.

(b) The diagram shows the displayed formula of a molecule of Halon 1301.



Draw a dot-and-cross diagram to show all the outer electrons in this molecule.

(2)

(c) The boiling point of Halon 1301 is -58°C .

Explain why Halon 1301 has a low boiling point.

(2)

Which specification statements are the questions testing?



ACTIVITY 1

Which specification point is the following question assessing?

Malachite is an ore of copper containing copper(II) carbonate and several other compounds that are insoluble in water.

You are supplied with several pieces of malachite, these chemicals and items of apparatus.

Chemicals: dilute sulfuric acid magnesium powder

Apparatus: beakers filter funnel and paper pestle and mortar

Describe how you would use the chemicals and the apparatus to obtain a sample of copper from the malachite.

(6)



ACTIVITY 2

Devise a question to assess the following specification statement

2.7 understand how displacement reactions involving halogens and halides provide evidence for the trend in reactivity in Group 7



Key content

The following topics are those that candidates regularly find more challenging in exam papers:

- Writing balanced chemical equations, particularly ionic equations (1.25)
- Calculations involving moles, particularly those involving volume and concentration (1.34C) and bond energies (3.7C)
- Linking properties to structures (1.41, 1.47, 1.49 and 1.50)
- Reversible reactions and equilibria (3.19C to 3.22C inclusive)
- Analysis of experimental data and evaluation of experimental methods



Some common errors seen in answers

- Referring to intermolecular forces of attraction when discussing the properties of substances with giant covalent structures, ionic compounds and metals
- Stating that covalent bonds are weak, and therefore require little energy to break, when explaining why simple molecular substances have low melting/boiling points
- Losing marks when writing chemical equations by getting the formulae incorrect (e.g. H instead of H_2 , MgCl instead of MgCl_2)



Some common errors seen in answers

- Referring to changes in (kinetic) energy of the particles when explaining the effect of surface area of a solid or concentration of a solution on the rate of reaction
- Providing contradicting information when explaining the effects of the change of a variable on the position of equilibrium of a reversible reaction



A decrease in temperature will increase the yield of ammonia as the equilibrium shifts in the endothermic direction.

Note that Le Chatelier's principle is not on the specification.

Mark schemes never give credit for the idea that an equilibrium reaction “wants to resist a change” or “moves to oppose a change”.



ACTIVITY 3

SiF_4 and SiCl_4 have simple molecular structures.

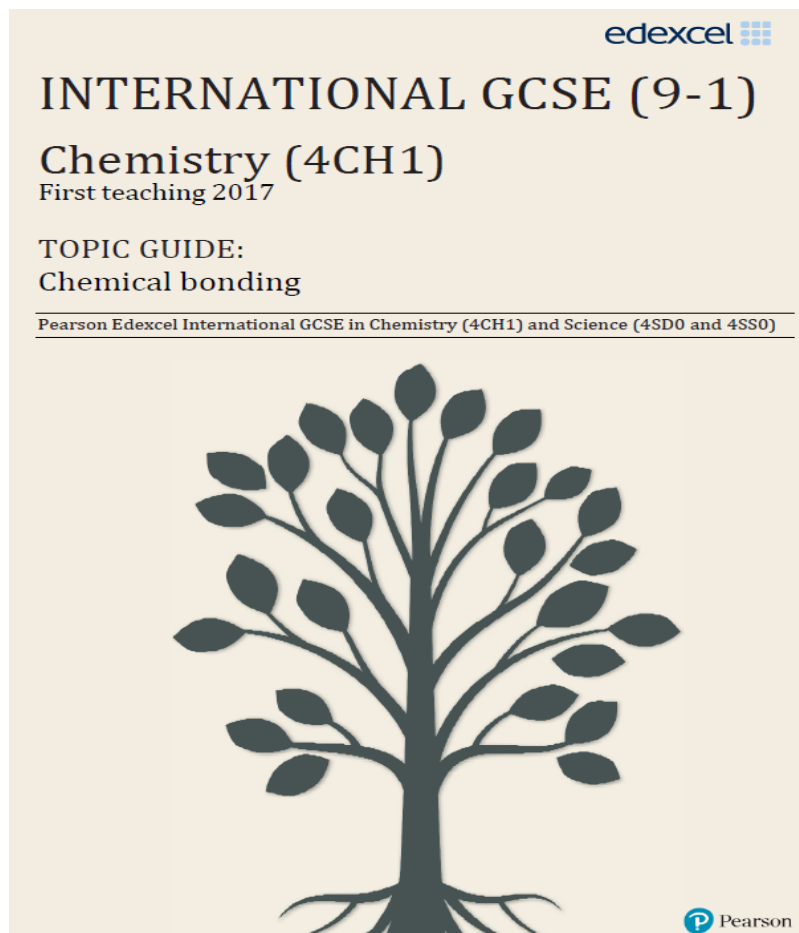
SiO_2 has a giant covalent structure.

- (i) Explain why the boiling point of SiCl_4 is greater than the boiling point of SiF_4 (2)
- (ii) Explain why the boiling point of SiO_2 is very much greater than the boiling point of SiCl_4 (2)

What are the essential points to include when answering these two questions?

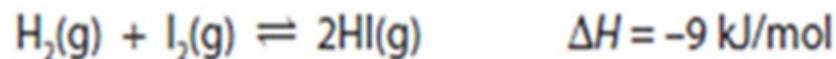


Topic Guide – Chemical Bonding



ACTIVITY 4

Hydrogen iodide can be manufactured from its elements using this reaction.



A temperature of 500 °C, a pressure of 4 atm and a platinum catalyst are used in this manufacturing process.

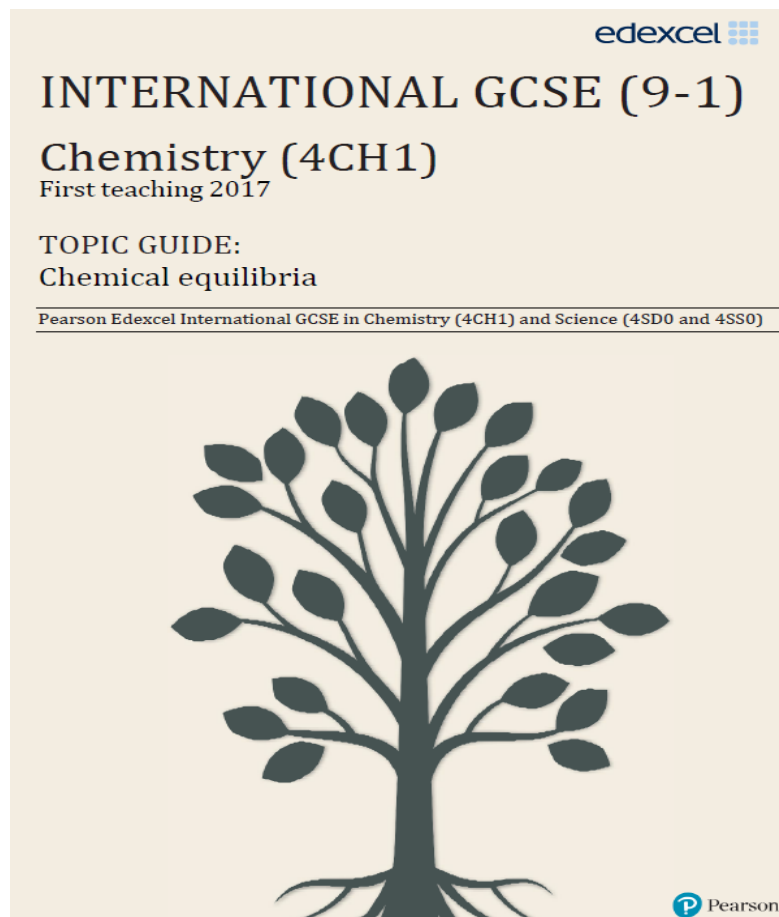
A manufacturer carries out this reaction using the same catalyst, a pressure of 4 atm, but a temperature of 400 °C.

State the effect of this change on the yield of hydrogen iodide.

Justify your answer. (2)



Topic Guide – Chemical Equilibria



How do I make sure I cover the content?

- Specification
- Schemes of work
- Lesson plans





BREAK TIME!

**PLEASE BE BACK
IN 15 MINS**

SESSION 2

Assessment objectives and exemplars



Aims and objectives

- To understand the assessment objectives for the qualification
- To understand the question types for the qualification
- To understand the mark schemes for the qualification
- To practise using the mark schemes using exemplar student work



Why do we have assessment objectives?

- Help make exams fairer year on year
- Provide structure for question paper writers
- Make sure that exams are about skills, not just about knowledge
- Can provide students with some reassurance about the types of questions they will be asked



Assessment objectives

AO1

Knowledge
and
understanding
in
chemistry

AO2

Application of
knowledge
and
understanding,
analysis
and evaluation
in
chemistry

AO3

Experimental
skills, analysis
and
evaluation
of data
and methods
in
chemistry



Assessment objectives

AO1

Questions requiring students to recall and use information that you have taught them

AO2

Questions requiring students to apply what you have taught them, or to use skills, or to analyse and make judgements

AO3

Questions on practical work and associated practical skills, such as planning, drawing graphs, analysing data, evaluating methods



Assessment objectives

AO1

**≈ 40%
of total marks**

AO2

**≈ 40%
of total marks**

AO3

**≈ 20%
of total marks**

- Note the proportions of AOs on International GCSE papers
- Paper 1 and Paper 2 both have the same balance of AO1 : AO2 : AO3
- Compared to our previous specification, the new specification has less AO1 and more AO2



Typical AO1 questions

- Can be simple recall

OR

- Can be based on understanding, not just knowledge



Typical AO2 questions

- Can involve simple ideas being applied to unfamiliar scenarios

OR

- Can involve more complex scenarios involving data analysis or evaluation



Typical AO3 questions

- Questions based on practical experiences – not just Core Practicals, but any practical work!

3 Sodium chloride is a soluble salt.

(a) Name the acid and the alkali that can be used to make sodium chloride.

(2)

acid

alkali

(b) A teacher drops a bottle containing sodium chloride. The bottle breaks when it hits the floor. The teacher sweeps up the mixture of sodium chloride and glass.

Describe how the teacher can obtain a pure, dry sample of sodium chloride from the mixture.

(4)



ACTIVITY 5 – Assigning AOs

Your pack contains questions from May/June 2019

Papers 1C and 2C.

Read the questions and assign an AO to each question part.

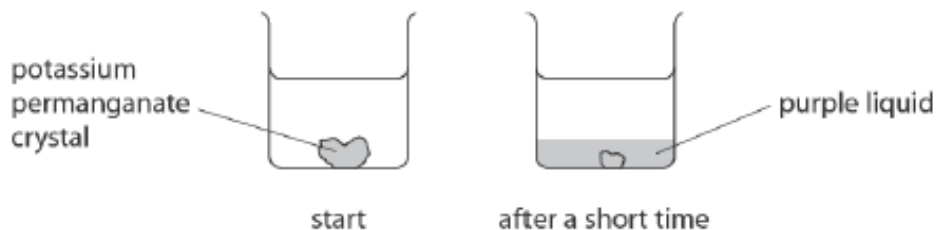


ACTIVITY 5 – Assigning AOs

AOs in Multiple choice questions

- 1 Potassium permanganate is a purple solid that is soluble in water.

A crystal of potassium permanganate is placed in a beaker containing water.



- (a) After a short time, the crystal becomes smaller and the liquid at the bottom of the beaker becomes purple.

Which statement explains this observation?

(1)

- ☒ A the crystal condenses in the water
- ☒ B the crystal dissolves in the water
- ☒ C the crystal evaporates in the water
- ☒ D the crystal melts in the water



ACTIVITY 5 – Assigning AOs

AOs in Multiple choice questions

(b) The beaker is left until there is no further change in the appearance of the liquid.

(i) Which statement describes the final appearance of the liquid?

(1)

- ☐ **A** all of the liquid is purple
- ☐ **B** none of the liquid is purple
- ☐ **C** only the bottom half of the liquid is purple
- ☐ **D** only the top half of the liquid is purple

(ii) Which process causes this change in appearance?

(1)

- ☐ **A** condensation
- ☐ **B** crystallisation
- ☐ **C** diffusion
- ☐ **D** evaporation



ACTIVITY 5 – Assigning AOs

AOs in Multiple choice questions

- 6 The reactions of metals with water and with dilute sulfuric acid can be used to determine the order of reactivity of the metals.

The table shows the reactions of four metals, W, X, Y and Z, with water and with dilute sulfuric acid.

Metal	Reaction with water	Reaction with dilute sulfuric acid
W	no reaction	no reaction
X	very slow reaction	reacts quickly
Y	no reaction	reacts slowly
Z	reacts quickly	reacts violently

- (a) What is the order of reactivity of these metals?

(1)

	most reactive				least reactive
<input type="checkbox"/> A	W	X	Y	Z	
<input type="checkbox"/> B	Z	X	Y	W	
<input type="checkbox"/> C	W	Y	X	Z	
<input type="checkbox"/> D	Z	Y	X	W	



ACTIVITY 5 – Assigning AOs

AOs in structured questions

3 A student does these two tests on a solution made from a white solid.

- flame test
- add acidified silver nitrate solution

The table shows his results.

Test	Result
flame test	red flame
add acidified silver nitrate solution	cream precipitate

(a) Give the formula of the ion that produces the red flame.

(1)

(b) Name the cream precipitate.

(1)

(c) Identify the white solid.

(1)



ACTIVITY 5 – Assigning AOs

AOs in structured questions

(d) The student uses a clean metal wire in the flame test.

(i) State why the wire should be clean when used in the flame test.

(1)

(ii) The table lists properties of some metals.

Add ticks (✓) to the table to show the two properties needed in a metal wire used in a flame test.

(2)

Property	
good conductor of electricity	
high density	
high melting point	
unreactive	



ACTIVITY 5 – Assigning AOs

AOs in structured questions

- 2 The table gives some information about the halogens, chlorine, bromine and iodine.

Halogen	Physical state at room temperature	Colour
chlorine	gas	pale green
bromine		red-brown
iodine	solid	

- (a) Complete the table.

(2)

- (b) Chlorine has two isotopes of mass numbers 35 and 37

The relative percentage of each isotope in a sample of chlorine is

chlorine-35 77.78% chlorine-37 22.22%

Calculate the relative atomic mass of this sample of chlorine.

Give your answer to one decimal place.

(3)

relative atomic mass =

- (c) A student is given an aqueous solution of chlorine and an aqueous solution of potassium bromide.

Explain how he can use these two solutions to compare the reactivity of chlorine with the reactivity of bromine.

(4)



Command words

- Questions in our exam papers are designed to use a specific command word to guide students
- The command words represent a range of skills:
 - simple recall (Give..., Name...)
 - using knowledge (Describe...)
 - giving reasons (Explain...)
 - provide more detailed analysis (Evaluate, Justify)
 - show particular skills (Calculate..., Plot...)
- Is there a link between command words and AOs?



ACTIVITY 6 – Assigning Command Words to AOs

Your pack contains a list of command words used in International GCSE Chemistry question papers.

- Draw a table with 3 columns one for each AO.

AO1	AO2	AO3

- Place command words into the columns, to show which command words can commonly be used to assess that AO.





AO2 QUESTIONS

Why not look at AO1?

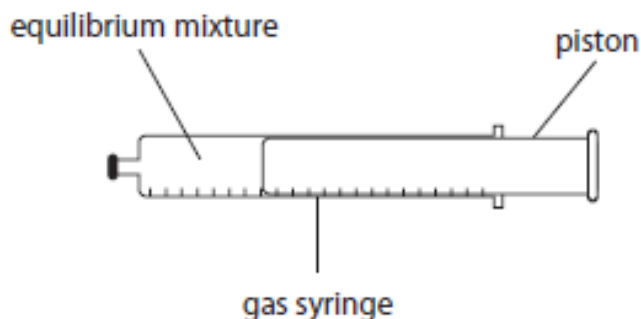
- AO1 is all about knowledge – and basic understanding
- This is not one that teachers can influence much...
- ... students either go away and learn what you teach them or they do not!
- **BUT...** remember that students should still recognise AO1 questions and not spend time going beyond AO1.



What is AO2?

- Application of knowledge to unfamiliar situations

(b) Some N_2O_4 and some NO_2 are put into a sealed gas syringe and allowed to form an equilibrium mixture.



This equilibrium mixture is brown.

- (i) The pressure of the gas in the syringe is increased by pushing in the piston. The mixture is then allowed to reach a new equilibrium at the same temperature as before.

Explain why the new equilibrium mixture contains less NO_2 than the original equilibrium mixture.

(2)



What is AO2?

- Calculations

9 Halon 1301 is a compound used in some fire extinguishers.

Halon 1301 has the percentage composition by mass of

C 8.05% Br 53.69% F 38.26%

(a) Show, by calculation, that the empirical formula of this compound is CBrF_3

(2)



What is AO2?

- Equations

(ii) Write a chemical equation for the complete combustion of ethanol in air.

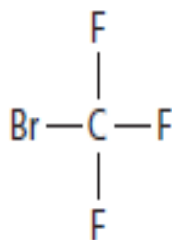
(2)



What is AO2?

- Unfamiliar dot and cross diagrams

(b) The diagram shows the displayed formula of a molecule of Halon 1301.



Draw a dot-and-cross diagram to show all the outer electrons in this molecule.

(2)



ACTIVITY 7 – AO2 in exams

Your pack contains questions from May/June 2019 Papers 1C and 2C, with mark schemes and student answers.

Mark the questions using the scheme provided.

We will discuss the students' answers to each question one by one, but don't let that stop you working on the next question if you are waiting for others to finish.





**Preparing
students for AO2**

Preparing students for AO2

Teaching approaches: Is it better to present facts or to teach principles? Why?

Questioning styles: Is it better to ask closed or open questions? Why?

Assessment activities: Is it better to set formative or summative assessments? Why?

Exam preparation: What else could you do to prepare your students to answer the AO2 exam questions?



AO2: question styles

- Think about one of the topics that you teach which often has AO2 questions in exams.
- What sorts of questions do you ask in class when teaching this topic?
- How do these questions help students to prepare for AO2 questions?



AO2: homework activities

- Why do you set homework?
- What sort of questions/problems do you set?
- What do you expect students to gain from the questions that you set?
- Will what they gain help them to answer AO2 questions?



ACTIVITY 8 – AO2 Exam preparation

Your pack contains two questions from June 2019 International GCSE Chemistry Paper 2C.

- Why is each question classified as AO2?
- How are these two questions different?
- What advice would you give to your students when trying to answer each question?





LUNCH



AO3 QUESTIONS

What is AO3?

- AO3 assesses the practical skills and understanding gained by students as they undertake practical work.
- AO3 questions may require RECALL of practical techniques and understanding or APPLICATION of these to new situations.
- AO3 may also involve the use of experimental data, and the evaluation of experimental methods or results.



AO3: Recall of Practical Technique

(e) Describe how the student could obtain a pure, dry sample of hydrated copper(II) sulfate crystals from the filtrate in stage 6.

(5)



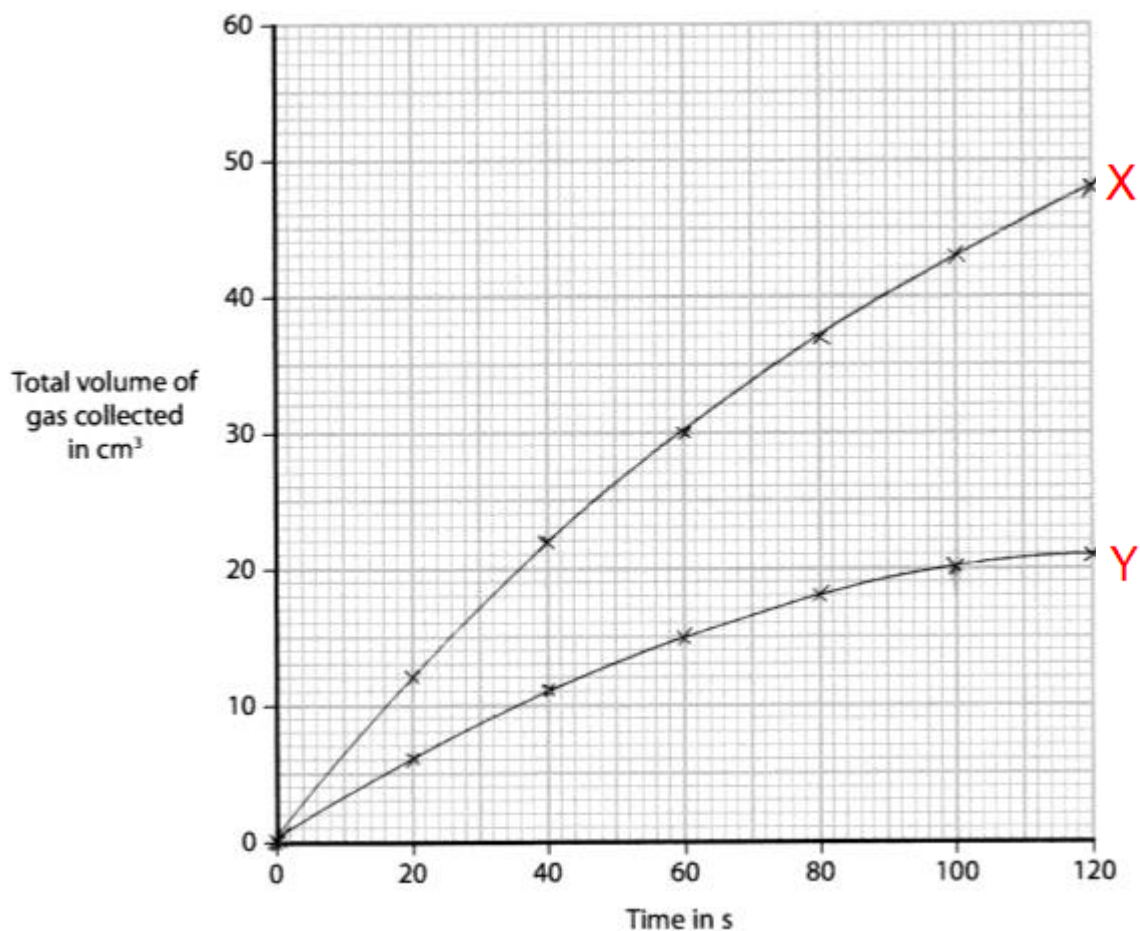
AO3: Analysis of results – graph

The graph on the next slide shows the results of reacting two different acids, X and Y, with the same mass of magnesium ribbon and at the same temperature.

Explain how the curves show which acid has the greater concentration.



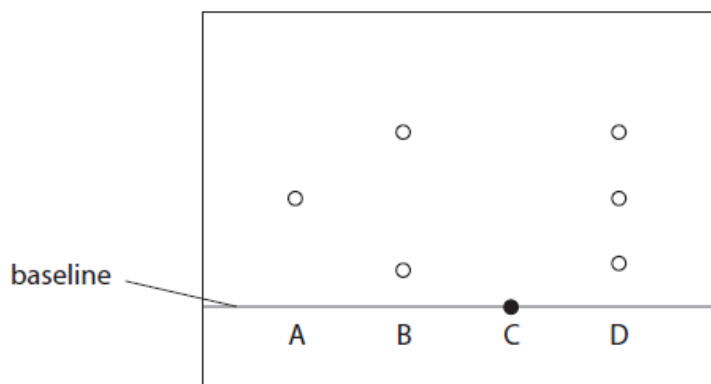
AO3: Analysis of results – graph



AO3: Analysis of results – diagram

(b) Another student does the experiment but does not make any mistakes.

The diagram shows her results.



(i) State how many colours ink D contains.

(1)

(ii) State which of the inks tested could be mixed together to make ink D.

(1)

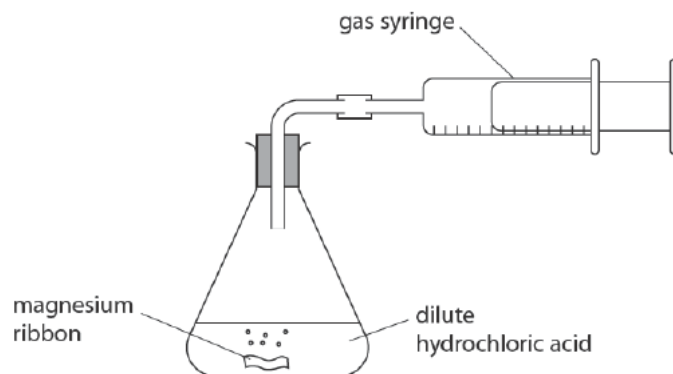
(iii) Explain which of the inks tested is insoluble in water.

(2)



AO3: Evaluation of methods

- 13 A student uses this apparatus to investigate the rate of reaction between magnesium and an **excess** of dilute hydrochloric acid.



She uses this method.

- use a graduated beaker to pour 50 cm^3 of dilute hydrochloric acid of concentration 2.00 mol/dm^3 into the conical flask
- add a piece of magnesium ribbon of mass 0.086 g to the acid and put the bung into the neck of the flask
- measure the total volume of gas collected every ten seconds until the reaction stops

- (c) The expected volume of gas produced in the first experiment is 86 cm^3 .

Suggest why the volume collected is less than the expected volume.

(1)

- (d) The student uses a graduated beaker to measure the volume of dilute hydrochloric acid.

Explain why it is **not** necessary to use a measuring cylinder in this experiment.

(2)



A03: Evaluation of methods

Examiner's report

Question 13 (c)

This question was poorly answered by the majority of candidates. Many said that gas escapes or is lost, but very few of these went on to say why it escapes, so this was insufficient to be awarded the mark. Mention of the magnesium being impure was rarely seen. Some said that the magnesium did not fully react, which was not creditworthy because as the acid is in excess there is no reason why the magnesium would stop reacting.

Question 13 (d)

This question was not particularly well answered. Many talked about an accurate measurement not being required but failed to mention that this was because the acid was in excess. As the second marking point was dependent on the first, answers such as these could not be awarded any marks.



AO3: Use of data

(c) The table shows the results of experiments done by four students, A, B, C and D.

Alcohol	Formula of alcohol	Time taken for liquid to evaporate in s				
		Student A	Student B	Student C	Student D	Mean time in s
methanol	CH ₃ OH	20	24	22	26	23
ethanol	C ₂ H ₅ OH	32	34	35	30	33
propanol	C ₃ H ₇ OH	45	47	50	48	48
butanol	C ₄ H ₉ OH	64	63	90	60	

(ii) Explain how the results show which alcohol evaporates most easily.

(2)



AO3: Use of data

Examiner's report

Question 3 (c) (ii)

Most candidates identified that methanol was the alcohol that evaporates most easily and gained the first mark.

The question asked for an explanation for this from the results, and as the results in the table were values of times, the required explanation needed to refer to methanol taking the shortest time.



Teaching AO3 – Terminology

validity

anomaly

precision

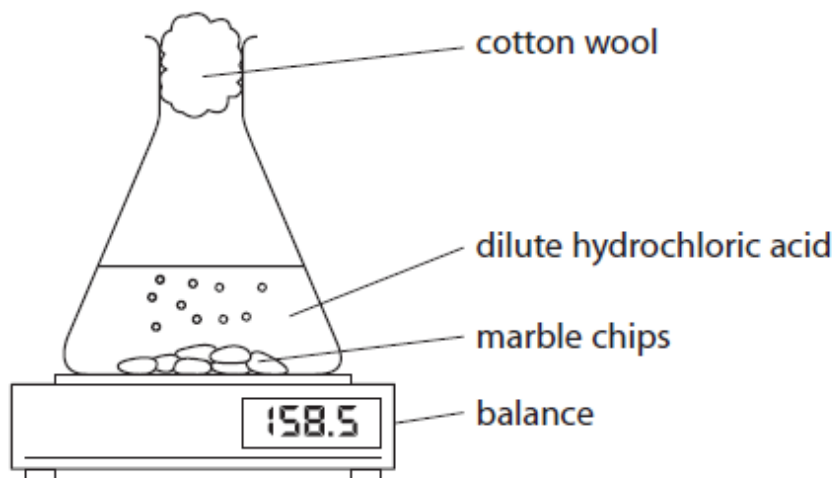
accuracy

reliability



Terminology – Accuracy

- 5 A student uses this apparatus to investigate the rate of reaction between marble chips and dilute hydrochloric acid.



- (a) During the reaction, the reading on the balance decreases because mass is lost from the flask.
- (i) Explain how using the cotton wool increases the accuracy of this investigation.

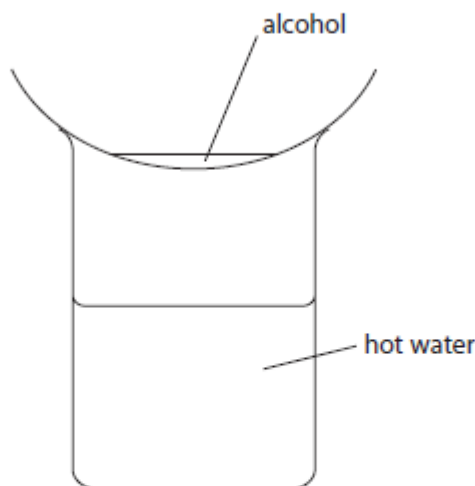
(2)



Terminology – Validity

- 3 Methanol, ethanol, propanol and butanol are alcohols. They are all liquids that evaporate easily when warmed.

A student uses this apparatus to compare the time taken for the four liquids to evaporate.



She uses this method.

- pour some methanol into an evaporating basin
- place the evaporating basin on top of a beaker containing hot water
- measure the time taken for the methanol to evaporate completely
- repeat the experiment with each of the other alcohols, using the same apparatus

(a) State two variables the student should control to make sure her results are valid.

(2)



ACTIVITY 9 – AO3 in exams

Your pack contains three questions from May/June 2019 Papers 1C and 2C, with mark schemes and student answers.

- Mark the questions using the scheme provided.
- Are students showing understanding of what they did in practical lessons?





BREAK TIME!

**PLEASE BE BACK
IN 15 MINS**

Teaching AO3 – doing practical work

- The specification for International GCSE Chemistry contains a number of practical activities that form part of the subject content.
- Exam questions expect students to be familiar with methods for these practicals.
- Questions also expect students to apply their knowledge of practical methodology to unfamiliar scenarios.



Teaching AO3 – doing practical work

- Why should students do practical work?
- Are students getting knowledge or skills from practical activities?
- When do you do practical activities: before or after teaching the theory of a topic?



Preparing students for AO3

Teaching approaches: fact vs. investigative

Why does copper turn black when heated in air using a Bunsen burner?

Fact: Copper reacts with oxygen to form copper(II) oxide

Investigative: What may have caused the black substance to appear?

Answer – the Bunsen flame or the air

How can we find out which?

Answer – heat the copper in a vacuum (not practical)

OR

heat the copper in a test tube so it is not in contact
with the Bunsen flame



Preparing students for AO3

Teaching approaches: fact vs. investigative

Investigative: The copper stills turns black so it must be something in the air.

How can we find out which gas in the air is responsible?

Answer – heat copper in each gas separately (not practical)

- heat copper in a sample of air and find out the percentage of gas used up
- $\approx 20\%$ used up, so copper has combined with oxygen



Preparing students for AO3

Good, I'm glad it's gone wrong!

- Add 1 cm depth of 1 mol/dm³ hydrochloric acid to each of the three boiling tubes
- Leave one tube at room temperature
- Place the second in a water bath at $\approx 40^{\circ}\text{C}$
- Place the third in a water bath at $\approx 60^{\circ}\text{C}$
- You are going to add a 1 cm strip of clean magnesium ribbon to each tube and measure how long it takes for the magnesium ribbon to completely disappear
- Predict the order of disappearance and then do the experiment



Preparing students for AO3

Prediction – magnesium disappears first at 50°C and last at room temperature

Outcome – magnesium usually disappears first at room temperature and last at 60°C

Explanation – gas given off so violently at 60°C that magnesium continuously lifts off the acid and falls back down
– at room temperature the magnesium sinks



ACTIVITY 10 – Questions for practicals

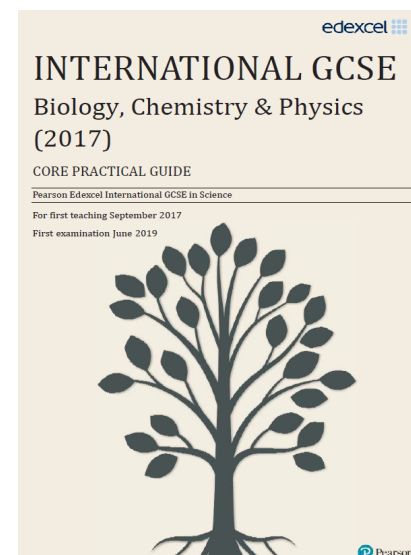
Your pack has a list of Core Practicals.

- Select one Core Practical from the list: it should ideally be one that your students actually do.
- What questions would you ask your students as they do this practical?
- What homework would you set?



Core practical guide

- An introduction to each practical activity
- Description of the practical, with some useful hints and tips
- Questions to use with students to test their understanding as they do the experiment in the lab
- A past paper question, where relevant, to use as a homework activity



SUPPORT



Support overview

Getting Started Guide &
Scheme of Work

Getting Ready to Teach
Events

Subject interpretation of
transferable skills

Subject Advisor

ResultsPlus

Regional Support Manager

Curriculum Matched
Publishing

Qualification Guides

Pre-recorded training

Exemplar marked responses
with commentaries

examWizard

Access to Scripts



Subject Home page

Chemistry (2017)

[Specification](#)[Course materials](#)[Published resources](#)[News](#)

Specification

[DOWNLOAD](#)

PDF | 1.5 MB

First teaching: **2017**
First external assessment: **2019**

Our Pearson Edexcel International GCSE (9-1) Chemistry specification and support materials have been developed with the help of teachers, higher education representatives and subject expert groups.

The qualification supports progression to further study, with up-to-date content reflecting the latest thinking in the subject. It is comparable to

Register your interest

Find out more about Pearson Edexcel International qualifications and sign up to receive the latest news.

[➤ Let us know](#)

Course materials

- [Specification and sample assessments \(3\)](#)
- [Exam materials \(13\)](#)
- [Teaching and learning materials \(18\)](#)



Teacher support and training

- [Training sessions](#)
- [Results support](#)
- [New 9-1 grading scale explained](#)



Teaching and learning materials

- Guidance on using practical terminology
- Exemplars with commentary
- Mapping documents
- Past training materials
- Guide for Core Practicals and Mathematics
- Scheme of work
- Topic Guides – Chemical bonding and chemical equilibrium



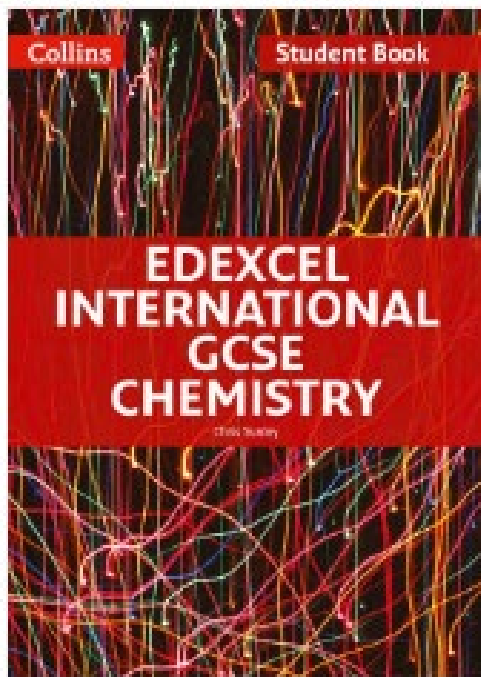
Published resources

- Three UK publishers have prepared resources, including Student Books, for the new International GCSE qualifications
- These are **Collins**, **Hodder** and **Pearson**
- All resources are now available
- The Student Books are endorsed by Edexcel – which means that they have been checked for specification coverage



Published resources – Collins

<http://collins.co.uk/product/9780008236212/Edexcel+International+GCSE+-+Edexcel+International+GCSE+Chemistry+Student+Book>



Student Book Teacher Pack

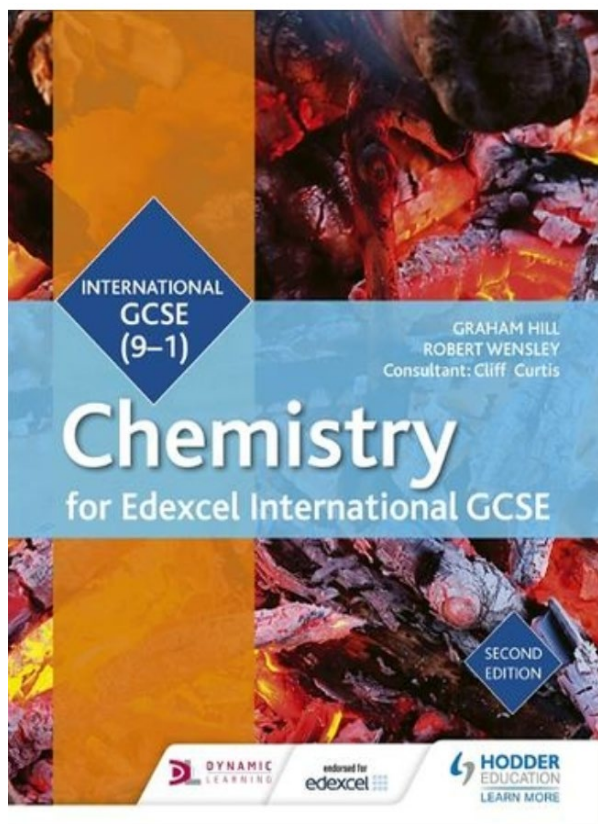
The Collins Student Book allows you to co-teach Edexcel International GCSE Chemistry and Double Award Science.

It is packed full of engaging content, practical skills features and questions, and is rigorously updated for the new specifications.



Published resources – Hodder

www.hoddereducation.co.uk/edexceligcse



Student Book

Provide your students with complete coverage of the Edexcel International GCSE Chemistry specification with these affordable student books written by expert authors and teachers; testing knowledge and building practical skills throughout.

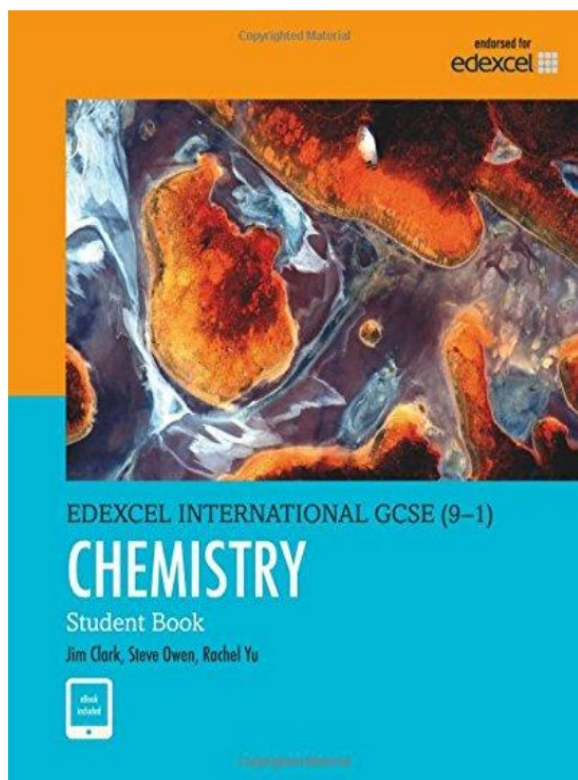
Workbook

Maximise every student's performance with exam-style questions, sample answers and examiner comments, written to support and enhance the content of the Edexcel International GCSE Chemistry book.



Published resources – Pearson

<http://www.pearsonglobalschools.com>



Student Book

This includes access to an eBook, has been developed for the new Edexcel International GCSE specification with progression, international relevance and support at their core. It is designed to supply students with the best preparation possible for the examination.

Teacher Pack

This is available online, and includes videos, worksheets, lesson plans and other support to help you deliver the International GCSE in Chemistry.



Pre-recorded training

<https://qualifications.pearson.com/en/support/training-from-pearson-uk/pre-recorded-training.html>

Pre-recorded training

These pre-recorded training videos have been developed to support you in the delivery, assessment and post-examination feedback for a range of different subjects. They can be watched at a time that suits you, shared with colleagues and revisited when needed.

Find your pre-recorded Training

Step 1. Select qualification family

A Level	Entry Level Certificate
Applied GCE	GCSE
Applied GCSE	International Advanced Levels
AS And A Level	International GCSEs And Edexcel Certificates
AS Level	LCCI Financial And Quantitative
BTEC Firsts	Mathematics In Context
BTEC Nationals	Project Qualification
Digital Applications (CIDA And DIDA)	

Step 2. Select Qualification Subject

Step 3. Available Resource



- Free online results analysis tool for teachers.
- Provides a detailed breakdown of student performance in Pearson Edexcel exams.
- Identify topics and questions where the student could benefit from further learning and inform teaching strategies and approaches.
- Benchmark your school's performance against other Pearson Edexcel schools in your country.
- Not just a post-results tool: Mock exam results can also be fed into the system to produce analysis.
- Find student results analysis from their previous Pearson Edexcel school.
- ResultsPlus Direct gives your students access to their final grades and performance breakdown, wherever they are.
- Schools can sign up for free ResultsPlus account in just a few quick and easy steps:

<https://qualifications.pearson.com/en/support/Services/ResultsPluses.html>





- [ResultsPlus Direct](#) gives your students access to their final grades and performance breakdown, wherever they are.
- Sign up for free ResultsPlus account in just a few quick and easy steps [here](#).
- Access additional video guides here:
- [ResultPlus - Individual Student Analysis](#)
[ResultsPlus - Cohort Analysis](#)
[ResultsPlus - Mock Analysis](#)
[ResultsPlus - Global Analysis](#)



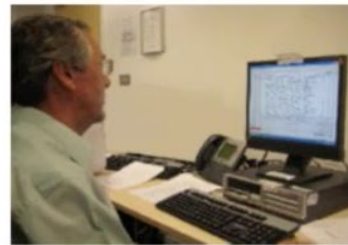
How ResultsPlus works



1.
Student
takes exam
on paper



2.
Exam papers
scanned



3.
Examiners
mark papers
online







4.
Performance
reports
shared







ResultsPlus Home page



Select an option



**Results Plus Analysis**
Analysis and reports on your Edexcel examinations



**Mock Analysis Service**
Print off past papers, assign papers to students for mock mark entry, enter student marks, analyse performance

**Create or edit a group**
Set up classes and other groups to help analyse performance

**Functional Skills on Demand Analysis**
Analysis and reports of your student's test performance

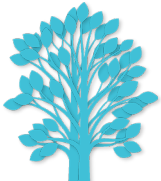
**BTEC Analysis**
Analysis of your student's BTEC National External Test performance

**Global Results Analysis**
View overall performance for the whole Edexcel cohort

**Retrieve Incoming Learner Results**
Retrieve Pearson results from a learner's previous centre



- A free tool for teachers which helps you make quick homework assignments, topic tests and mock exams.
- Questions tagged against unit, topic and assessment objective or simply choose a whole past paper.
- Use existing mark schemes for accurate marking.
- Use examiner report for insight.
- Most recent exam content available sooner.
- Use the results to understand where students need more support, informing teaching strategies.



examWizard Home page

examWizard Find Past Papers Build a paper My Papers

examWizard

examWizard is a free exam preparation tool containing a bank of past Edexcel exam questions, mark schemes and examiners' reports for a range of GCSE, GCE, Functional Skills subjects & BTEC sectors.

- Saves you time by enabling you to create your own mock exams, topic tests, homework or revision activities in minutes.
- Links directly to associated examiner reports and mark schemes!

General Qualification subjects

Sciences

Proceed to login

BTEC & Functional Skills

Choose sector

Proceed to login



Post-results services

Reviews of marking and moderation (RoMM)

Access to scripts (ATS)

Appeals

Our Reviews of marking and moderation (RoMM) services allow you to request us to run additional checks that the grades we've issued your candidates are correct.

Clerical check (Service 1)



Review of marking of externally assessed components (Service 2)



Priority review of marking of externally assessed components (Service P2)



Review of moderation for internally assessed/externally moderated controlled assessment and coursework components (Service 3)



If a centre is concerned about the marking of a centre cohort



New Access to Script (ATS) Online Portal

Access to Scripts (ATS) is a free online portal which allows teachers to immediately access electronically marked exam papers.

Provides enhanced transparency and

- offers transparent approach to marking process
- provides better understanding of marking before requests for enquiries about results are made
- provides excellent aid for teaching and preparing other cohorts for examinations by helping you to evaluate a student's performance on particular questions in relation to what they have been taught.

Available instantly from results day for all our examination series, for a defined window, you can view and download scripts which have been marked online free of charge from our Self-Service Portal.

For more information on ATS, and the post results windows, visit our post-results pages.



Other useful links

[1. Grade Boundaries](#)

This page shows the minimum marks needed to achieve a certain grade for all UK and international examinations. Also refer to the Examiner's report which is available for download with other documents.

[2. Examination Results Statistics](#)

Results statistics summarise the overall grade outcomes of candidates sitting Pearson Edexcel examinations.

[3. Progress to University](#)

Here you can find information and guidance about how to progress to universities worldwide with Pearson Edexcel qualifications.

[4. Access to scripts](#)

Make an informed enquiry about results (EARs) using our free access to scripts portal.



Contact your dedicated Subject Advisor

Subject Advisor details

Your subject advisor is **Irine Muhiuddin**

Phone:

Intl: +44 (0)344 463 2934

Twitter: **@PearsonSciences**



Sign up for monthly newsletters to stay on top of qualification updates, training, course materials and industry news.

Contact us: <https://qualifications.pearson.com/en/contact-us/teachers.html>



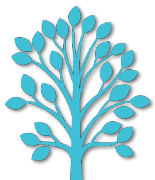
Pearson International Schools Community

Connect with international teachers around the world.

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- Read topical news and articles and share yours
- Advertise jobs at your school or find job opportunities
- Download free resources
- Sign up for events.

Sign up today at:

pearson.com/internationalschools/blog



Thank you

Find out more about us at:
<http://qualifications.pearson.com>

ALWAYS LEARNING