



AQA network meeting

Hub school:

AQA Presenters:

Agenda

- GCSE update: accreditation and resources
- A-level updates: resources and monitoring visits
- Events and CPD offer 2016 /2017
- Planning and teaching the new GCSEs – host school to share their ideas on their approach and experiences so far of the new GCSEs
- An opportunity for other schools to share their experience of the new GCSEs so far

Previous hub schools meetings

Autumn term

- GCSE update:
 - analysis of the subject content: change in tier
 - insight into the new exams: our exams explained book
 - Practical work: list and resources
- Current science GCSEs and A-levels: feedback from the summer 2015 exams – summary reports

Spring term

- GCSE practical work: resource offer
- Get to grips with the Maths: development of resources to support teaching maths in science; exemplar materials using standard form
- managing transitions and planning interventions: transition tests Yr 7 and 9
- KS3 syllabus and accompanying resources
- A level update – endorsement and our new transition guides

GCSE update: accreditation and resources

- One full suite of specifications will be sent to all schools
- Summary of change documents draft – accredited
- Update on resources
 - Schemes of work
 - Practicals
 - Maths in Science
- Update on exampro

Summary of changes draft – accredited

The subject content in this specification has a few changes from the draft version. We have made these changes:

- in response to specific feedback from Ofqual
- to remove material that is assumed knowledge from KS3
- to remove specific examples that may restrict teaching opportunities.

What's changed:

- there are a number of new required practical activities
- some of the wording to the required practical activities has changed to make them more focused and specific
- we have signposted what students should be able to do in order to cover the mathematical skills
- we have indicated the depth needed to be covered by using a command word, such as students should be able to describe or students should be able to explain
- we have added more signposts to working scientifically to increase the opportunities to incorporate this into your teaching and learning.

We have signposted what students should be able to do in order to cover the mathematical skills

3.1.1.1 Eukaryotes and prokaryotes

Draft: maths skills signposted in RHS

Accredited : Students should be able to demonstrate an understanding of the scale and size of cells and be able to make order of magnitude calculations, including the use of standard form.

4.6.1.3 Collision theory and activation energy

Draft: maths skills signposted in RHS

Accredited : predict and explain the effects of changes in the size of pieces of a reacting solid in terms of surface area to volume ratio

use simple ideas about proportionality when using collision theory to explain the effect of a factor on the rate of a reaction.

We have signposted what students should be able to do in order to cover the mathematical skills

4.3.3.2 Pressure in gases (physics only)

Draft: maths skills signposted in RHS

Accredited : Students should be able to calculate the change in the pressure of a gas or the volume of a gas (a fixed mass held at constant temperature) when either the pressure or volume is increased or decreased.

we have indicated the depth needed to be covered by using a command word, such as students should be able to describe or students should be able to explain

4.1.1.4 Cell differentiation

Same content in both draft and accredited version but added detail in accredited to show depth needed

Accredited: Students should be able to explain the importance of cell differentiation.

4.2.3.1 Diamond

Same content in both draft and accredited version but added detail in accredited to show depth needed

Accredited: Explanation of students' expected knowledge of the properties of diamonds has been added.

Students should be able to explain the properties of diamond in terms of its structure and bonding.

we have indicated the depth needed to be covered by using a command word, such as students should be able to describe or students should be able to explain

4.2.1.4 Resistors

Same content in both draft and accredited version but added detail in accredited to show depth needed

Accredited: Students should be able to explain that, for some resistors, the value of R remains constant but that in others it can change as the current changes.

Detail on replaced with description of what students are expected to know

4.2.2.1 *The human digestive system*

- *Detail on enzymes replaced with description of what students are expected to know.*

Draft: Enzymes are used to convert food into soluble substances that can be absorbed into the bloodstream. Enzymes:

- are biological catalysts that speed up chemical reactions in living organisms
- are proteins
- catalyse a specific reaction due to the shape of the active site
- are denatured by high temperature and extremes of pH due to changes in the shape of the active site
- have an optimum temperature
- have an optimum pH.

Accredited: Students should be able to **describe** the nature of enzyme molecules and **relate** their activity to temperature and pH changes.

A-level update: resources

- A second full set of A-level specimen assessment materials for Biology, Chemistry and Physics
 - Available from the start of September and only accessible through Secure Key Materials (SKM)
 - Second set of AS specimen assessment materials already available on SKM
- Student transition guides for Biology, Chemistry and Physics
 - Booklets containing activities to support the move from GCSE to A-level
- Further maths episodes to support development of maths skills
- Published resources to be reviewed based on feedback from first year of teaching (Schemes of Work, Practical Handbooks)

A-level update: teaching resources coming soon

Teaching notes to cover new A-level only content or content where the breadth and depth of coverage has increased in the new specifications.

A-level Biology

- Control of blood water potential (section 3.6.4.3)
- Epigenetic control of gene expression (section 3.8.2.2)
- RNAi (section 3.8.2.2)

A-level update: teaching resources coming soon

A-level Chemistry

- Biochemistry (section 3.3.13)
- Chromatography (section 3.3.16 – already available)

A-level Physics

- Teaching guides for each of the 5 optional topics: Astrophysics, Medical physics, Engineering physics, Turning points in physics and Electronics

How far we have come

- To date 367 schools and colleges have had their first Monitoring Visit
- 38 Advisers have worked as a team to support teachers
- Approximately 90% so far have passed their visit. Quality assurance of both teacher assessment of CPAC and both learner and teacher records has led to a positive outcome

How far we have come

These schools and colleges have all:

- Completed the compulsory Lead teacher online training
- Delivered a number of practicals assessing CPAC accurately
- Started to keep records to show learner progress and attendance
- Got strategies of how to manage absent students
- Encouraged their students to keep a lab book within which all practical work is kept

A school or college has required a second visit because:

- They have not completed our online training.
aqa.org.uk/resources/science/as-and-a-level/teach/practicals
- As a result, teachers were not able to assess the CPAC accurately, consistently and robustly.
- They had very limited evidence of CPAC assessment. This was often because very few of the required practicals had taken place.
- It was also noted that practical work was not always integral to the theory work but often still being regarded as an 'add on'.

Next steps

- We are currently looking to recruit 120 new teacher advisers from all three subjects nationally.

aqa.org.uk/about-us/become-an-examiner-or-moderator/current-vacancies

- All remaining monitoring visits will take place for this current series in the autumn term.

- We have a new webpage, dedicated to practical work. The Practically Speaking Blog, published every three weeks, is a great way to keep up to date with our new resources.

aqa.org.uk/resources/science/as-and-a-level/teach/practicals

- There are also courses this term to support teachers administer the 12 required practicals in each subject.

aqa.org.uk/professional-development

Activity

- Booklet 1, copy of:
 - section 3 from the specification – working scientifically
 - appendix B the physics equations
 - DfE maths skill sheet
- Booklet 2:
 - a series of sample questions taken from the draft SAM
- For each of the questions note down the:
 - a. level of demand
 - b. assessment objective AO1 , AO2, AO3
 - c. if it is working scientifically and its reference
 - d. maths skill

Assessment objectives

The assessment objectives proposed by Ofqual are broadly similar to those for the current GCSEs, but the inclusion of working scientifically will have a significant impact on teaching and learning.

	Assessment Objectives	Weighting
AO1	Demonstrate knowledge and understanding of: <ul style="list-style-type: none">scientific ideasscientific techniques and procedures.	40% (current 37.5%)
AO2	Apply knowledge and understanding of: <ul style="list-style-type: none">scientific ideasscientific enquiry, techniques and procedures.	40% (current 35%)
AO3	Analyse information and ideas to: <ul style="list-style-type: none">interpret and evaluatemake judgements and draw conclusionsdevelop and improve experimental procedures.	20% (current 27.5%)

Thank you

Date for next meeting

Focus for next session –
exam feedback from summer series

Please fill in evaluation form

Support list

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GCSE

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A level

alevelscience@aqa.org.uk / 0161 958 3859

Coursework Administration

courseworkadmin@aqa.org.uk / 01423 534 455

e-AQA

aqa.org.uk/help/eaqa.php

You can access **Secure Key Materials (SKM)** via eAQA. Login using the password for your school which you can obtain from your Examinations' officer.

Enhanced Results Analysis (ERA)

aqa.org.uk/about-us/what-we-do/products-and-services/enhanced-results-analysis

Exampro

exampro.co.uk

Online course booking:

coursesandevents.aqa.org.uk

in-school CPD

aqa.org.uk/professional-development/in-school-training

TOLS (Teacher Online Standardisation)

aqa.org.uk/about-us/what-we-do/products-and-services/teacher-online-standardisation

Exam change essentials

aqa.org.uk/news-and-policy/supporting-education/exam-change-essentials/exam-change-essentials-resources