# GCSE (9-1) GATEWAY COMBINED SCIENCE A J250



# **Support highlights**

We know teaching has been greatly disrupted in 2020, so to support you we've collated together some of our most useful resources below for you. This includes resources to help you focus your teaching towards individual abilities of students, resources to help determine your students' capabilities and above all resources to help save you time, enabling you to quickly get back up to speed in the classrooms and support your students in preparing for exams. Many more resources are available from the <u>OCR website</u>.

# Quizzes

#### Download our quizzes

There is one quiz for each topic. They are ideal to use to assess the students' understanding of each topic. They could be used as formative tests to help you identify gaps in the students' learning during lockdown. They are quick to do and quick to mark. These quizzes can help inform your planning for and during next year. *Note, Interchange access is required to download these quizzes*.



# Language of measurement in context

Download language of measurement in context – Biology

Download language of measurement in context – Chemistry

Download language of measurement in context – Physics

Students are always getting confused over the correct use of terminology. Is an experiment repeatable or reproducible? Are the results accurate and/or precise? This resource puts the terminology in the context of a scientific experiment to help the students identify the correct words to use.

# How to answer 6 mark LOR questions

#### Download the resource

Here are some 6 mark LOR questions for students to practice, taken from real student responses. Students become the examiner and mark some real responses. They then look at the examiner comments and match their marking. Finally, students write their own 6 mark response and mark it. This resource could also be used as illustration of good exam technique when tackling these types of questions. Students can download this themselves, so it could be easily accessed for remote learning or as a homework task, as well as being used in the classroom.











# You may also like

# Foundation Learning activities

Download foundation learning activities – Biology

Download foundation learning activities – Chemistry

Download foundation learning activities – Physics

These are activities which could be used as learning checks or starter activities. They are designed to engage low attainers and help them access science, or can be used at the start of a topic to check what students remember from KS3 and refamiliarise them with the topic.

### Transition guides

Our <u>transition guides</u> look at what students learnt in Key Stage 3 and how that leads into Key Stage 4, with suggested activities, and some checkpoint tasks. The tasks could be used to assess the gaps in the students' knowledge because they have missed school in the year before they enter their GCSE courses.

# Practical skills booklets

Download practical skills student booklet

Download practical skills extension booklet

Download practical skills teacher and technician notes

A series of booklets for delivering suggested practicals, including an extension booklet students can work through to practice exam style questions related to practicals.

# Mathematical Skills Handbook

Use the <u>handbook</u> together with our <u>math skills check-in</u> document to ensure students have the mathematical skills required to succeed in the examinations.

# Summer Highlights

Our Summer Highlights documents from 2018 and 2019 summarise the common mistakes that students make in GCSE Science examinations, and can be used as a revision aid or for teachers to identify common misconceptions students have.

# Assessment materials

Access past papers, mark schemes and examiners' reports from the OCR website.

# New resources to support you

# Subject Highlights and specification content revision tick list

RAG rating for students of the specification content. <u>Subject highlights from past</u> <u>examiners' report</u>s to help students pick up valuable marks in the exams.

# ExamBuilder end of topic MCQ quizzes

A <u>complete set of multiple choice quizzes</u> to cover each topic. These have been made using ExamBuilder so make use of past paper questions. An <u>instruction guide</u> to help teachers use ExamBuilder to create end of topic tests to assess the gaps in students' knowledge has also been published. *Please note Interchange access is required to download the topic test.* 

# Remote teaching additions to schemes of work

<u>Helpful websites recommended by teachers</u> with resources for use in remote or flip learning. To help teachers cover the specification content and any gaps in knowledge, as well as saving some time finding suitable resources.

# Women in science poster

This <u>resource</u> exemplifies the work of prominent female scientists and how this work links to the content in our specifications. You and your students can relate the achievements of these scientists to the work you do in the classroom.

# **Professional Development**

# Improving your Delivery: Resources for GCSE Gateway Science J247-J250 and Twenty First Century J257-J260 (Q&A)

An online Q&A session focusing on the resources available from OCR. Highlighting the different resources we have and how to use them. There will a be an opportunity to discuss future potential resources that teachers would like.

### Understanding the Assessment: Exam preparation for GCSE Biology, Chemistry, Physics (separate events)

These three online surgeries will give teachers some approaches to general Science examination preparation, as well as Biology, Chemistry and Physics specific examination preparation tips. Areas of significance for teachers will be highlighted, discussing the approaches taken by candidates to previous series questions and advising how this can be used to better support your students.

#### Improving your Delivery: Practical question skills for GCSE Gateway Science J247-J250 and Twenty First Century J257-J260 (Q&A)

An online Q&A session focusing on practical questions skills. Giving support to help the answering of the practical questions in the examination.

#### Find an event

All of these CPD events will be available as part of our 2020-2021 programme. Details for booking will be coming soon.

See our range of professional development courses using the '<u>Find an event</u>' search tool.

We're now running all our CPD training online rather than face-to-face. Future courses will be in the form of a webinar, offering the same high-quality training as our face-to-face training. If you have any questions, please email professionaldevelopment@ocr.org.uk

# **Cambridge Assessment resources**

#### **Resource Plus from Cambridge International**

These <u>digital resources</u> are now available to all OCR teachers free of charge. Resource Plus gives you access to high quality videos, ready-made lesson plans and teaching materials that you can use to help your students learn and prepare for their exams. We also offer Resource Plus materials that are designed for you to share with your students.

Experiment video and lesson resources could be of use in the classroom if practical work is difficult when you return to school. There are accompanying teacher notes, resources for students and a quiz. *Please note, there are cases where the term reliable is used, which isn't a term used in OCR qualifications.* 

Interpreting and evaluating experimental observations and data - this is a useful resource. It looks at drawing graphs and processing data. So, it could be used to hone students' practical skills tested in the assessments. Please be mindful of the terminology used.



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#### GCSE Gateway Combined Science A (9-1) J250





# **Publisher materials**

# Cambridge University Press

### **Cambridge Elevate**

IGCSE Enhanced Elevate edition – This <u>digital learning experience</u> provides a range of digital resources/textbooks that would suit this qualification. This is a paid for service, but a 30 day trial is available. A selection of these resources are also freely available via our enhanced Schemes of work. *Coming soon*.

Resources that may be particularly useful include an online bank of videos and animations, a digital textbook and short self-marking end of topic quizzes that students can complete online. *Please note, there may be some content differences due to this being written for the IGCSE Syllabus*.

# **Oxford University Press**

<u>Kerboodle</u> - An online bank of resources, activities and online assessment package, and access to online textbooks. There is a cost to access Kerboodle (£800 a year) but there is free access for new subscriptions until September 2020.

<u>GCSE Sciences skills pack</u> - Maths skills support and web quests research exercises - with lots of links to follow up.

# **Other resources**

### Royal Society of Chemistry – Secondary resources

The RSC has a <u>range of resources</u> including videos of practicals, quizzes and practical instructions. These could all be useful to help you assess your students and introduce them back to practical work.

# **Association for Science Education**

The ASE has a <u>series of resources</u> to help in the classroom including some transition tests from Key Stage 3 to Key Stage 4.

# **BBC Bitesize**

A <u>range of activities</u> by BBC Bitesize that covers OCR GCSE Gateway Combined Science A. The activities work through the content topic by topic with an end of topic quiz included.

# STEM Learning

STEM have a <u>variety of resources</u> to help teach KS4, with a series of resources that are suitable for learning at home.

# The Institute of Physics

<u>IOP spark</u> site is an excellent site with lot of resources for Physics students and teachers of all ages. The <u>misconceptions</u> students have are particularly useful.

# **Keep connected**

#### Useful resources for remote teaching and learning in Science

The Science Subject Advisor team share some <u>useful resources</u> to help teachers make the challenge of adapting to new ways of working easier. It highlights resources useful for remote learning and that can be useful as students go back to the classroom as home learning resources.

#### Practical Biology at home – Osmosis

This resource <u>suggests how to adapt the classic potato and salt solution practical</u> to add variety to learning during lockdown, with hints and tips of how to extend students and get them to put the practical into unfamiliar contexts.

#### Practical Chemistry at home: Garden pH indicators

How to make pH indicators from plants in your garden.

### Practical science at home

Practical science at home - In his latest <u>blog</u> post, John Dewis, Physics Subject Advisor – Science, offers a simple practical experiment that teachers can share with their students who are working from home.

# Get in touch



John Dewis Subject Advisor for Physics



**Bethan Foulkes** Subject Advisor for Biology

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