

*Stowe*



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## Introduction - GCSE Revision Guide


Dear Stoics and Parents

The purpose of this GCSE Revision Guide is to help Stoics revise over the Easter holidays for the modules in the Summer term. We have asked the Academic Departments to provide a summary of the GCSE topics and papers so that Stoics know exactly which topics they have to prepare. ICT is not listed because all their exams are completed or they have no written papers. At the end of each entry is a School email address and phone number for the Head of Department. School and Exam Board websites with past papers and additional information are also listed.

**Stoics should ensure that they take home ALL their relevant files, revision packs and textbooks as the School will be closed over the holidays.**

At the front of the Revision Guide we have also provided a guide to Revision Techniques with helpful advice from experienced professionals. The key to academic and exam success is **focused work** and **active learning**: organising files with the GCSE Specifications/topics to guide; making and learning revision notes; using whichever method of learning best suits the individual Stoic (mind maps, lists, notes etc) and then being tested. It is also vital to practise exam questions against a clock so that exam technique is mastered as well as factual recall. Once Stoics return for the Summer term there are **three** weeks of teaching in which to polish exam skills, to practise exam questions and to attend Clinics for gap-filling and final help and advice.

Good Luck with your revision and the exam modules.



Crispin Robinson  
Second Master: Deputy to the Headmaster

## How Do You Learn Best?

### **Important**

Most people can only concentrate for about 40 minutes.

After 40 minutes give yourself a little break and a treat. Then return to work.

Organise your files before you go home for the holidays.

Do not just read it through: **You need to ACT on your information.**

- Transfer the information to a word processor. Try to summarise and find key words.
- Make a mind map. This concentrates your thoughts.
- Put the information into bullet points on index cards.
- Make an annotated drawing.
- Discuss with someone. Be tested by someone.

### **Revisit**

- Reformat the document on a word processor. This makes you look at it again and reminds you of key facts.
- Improve the mind map with colours and drawings. This brings in the other side of your brain for full thinking power.

### **Reproduce**

- Try to write or draw the information from memory. Do this several times and improve each time.

### **Test Yourself**

Use: Cards  
Folded paper  
Test questions

- Plan your work space
- Make sure you have a good place to work, free from distractions (i.e. phones, iPods etc).
- Once you have finished a revision session, put the books away.
- Keep your desk clear and organised.

**Remember** there is lots of information on the School website, including past papers.  
There are also lots of excellent revision websites, such as BBC Bitesize.

## Revision Techniques

Revision is a very personal thing. There isn't one way to go about it. You need to decide the combination of strategies and techniques that work for you based on experimentation and the results you get.

### Preparation

- Before you begin make sure that all your files are in order and that nothing is missing.
- Make sure you have useful study aids in your possession that will help you with your revision, such as highlighter pens, coloured felt tip pens, Post-It notes and a set of revision cards for key words.
- Ask your teacher and make sure you are clear what topics the exam in each subject will cover.
- Make sure you know how long the exam will be and what form the questions will take as this will affect how you revise.

### Revision Tips

Start your revision in good time and avoid doing it in a rush. You will be more relaxed, there will be no sense of panic and it will be easier to learn. Usually, unless you have a photographic memory, it is not useful to just stare at the page of your notes or textbook. Plan your session rather than reading in an unfocused way. Set yourself a target for each session.

Here are tips that can help. Choose the ones that suit the way you learn.

- Take notes as you read. These will help to:
  - increase your capacity to recall information, especially under the stress of exam conditions,
  - put the text into your own words cementing your understanding,
  - summarise and emphasise the key points,
  - focus your attention.
- Memory cards. If you like to write out your revision notes it is then helpful to condense that information into small manageable facts. On cards you can write bullet points or key facts which should then act as prompts for all the other revision facts you have been learning. Make sure every card has a title e.g:  
Romeo and Juliet - facts.  
Romeo and Juliet - quotations.  
Put the question on the front and answer on the back? You can carry a set of cards around and look at them when you have a free moment.
- Write key words and phrases out on Post-It notes.
- Use mind maps (see page 8) – these are made to illustrate key points by using drawings/colours/symbols. Be creative!
- Use spider charts (see page 8) – put the main idea in the circle in the centre with lines drawn to other ideas that emerge from this.
- Use colour coding and highlighting – link connecting points by colour themes.
- If you are in a suitable place where you are not disturbing others say things out loud. Works well for lists, formulae etc. Speak list rhythmically.
- Revise in 40 minute slots then take a break for five minutes and change to another topic.
- If you come across something you do not understand then ask someone. There is no point learning something from memory if you do not understand it. Go to a clinic!
- Practise examination questions. Use the questions in your textbook, past exam papers and topics given by your teachers. Many Departments have past papers and mark schemes on the VLE. Test yourself using these past exam papers and then mark them yourself using the mark scheme – this will help you understand how marks are allocated and what you need to do to access the higher levels of responses.

## Revision Techniques - continued

- Don't just revise the subjects you like!
- Test yourself! Set yourself challenges – look at the title of a card/cover it up/try to recite as much as you can remember. Once you have done this two or three times and feel you know the material you can reduce the notes even further to make a new card. Headings should prompt your memory.
- Reward yourself for achieving targets but do not get demoralised if you fall behind. If necessary amend your objectives to a more realistic level.
- Revise with others – it is good to have moral support/talking it through helps to make sense of the material/hearing how other people view a topic can be helpful. Be careful not to waste time chatting and getting negative.
- Monitor how you may be wasting time – texting, Facebook, fiddling with your iPod. You may find it helpful to refer to revision guides (make sure they are specific to your exam specification) and resources on the Internet such as GCSE Bitesize.

<http://www.bbc.co.uk/schools/gcsebitesize/>

<http://www.s-cool.co.uk/>

<http://www.bbc.co.uk/schools/ks3bitesize/>

### Exam itself

The three most important skills for exams are:

- **Reading Skills** - You need to make sure that you take the time to read the INSTRUCTIONS and the QUESTIONS slowly and carefully to know exactly what you are being asked. This is not time wasted! Use a highlighter for the key words.
- e.g. Give a reason for your answer
- **Thinking Skills** - You need to have SLEPT WELL and EATEN A GOOD BREAKFAST so that you can be relaxed, not panicking and have lots of energy to think clearly.
- **Time Management Skills** - In exams you need time for reading the paper.
  - Thinking
  - Planning - when the question requires an essay or an extended piece of writing.
  - Writing - work out how much time you will need for each section so that you can split your time between the questions to make sure they all get answered.
- Think about the type of exam.
  - Multiple choice: lots of facts; do not need to answer questions in order; do not rush as easy to make mistakes.
  - Short answer questions: get detail/length of answer right for marks allocated.
  - Essays: planning; timing.
- Top up your memory just before the examinations. Use key cards for concepts, formulae that you find difficult to remember.
- Look at the allocation of marks for the question to judge the length of your answer.
- Do not spend all your time on questions you know the answer to. You will get a worse mark for answering some of the questions brilliantly and some not at all.
- Show your workings out – especially in Maths and Science where you will get marks for thinking along the right lines even if the final answer is wrong.

## Revision Techniques - continued

### Exam questions

**It's very important to make sure your answer gives what the question is looking for. Here are some key words to look out for to guide your answer.**

**Account for:** Give reason for; explain why something happens.

**Analyse:** Examine in very close detail; identify important points and chief features.

**Comment on:** Identify and write about the main issues. Avoid purely personal opinion.

**Compare:** Show how two or more things are similar. Indicate the relevance or consequences of these similarities.

**Contrast:** Look at and discuss the differences between things.

**Criticise:** Give your opinion and use evidence to support it.

**Define:** Give the exact meaning of.

**Describe:** Give the main characteristics or features of something or outline the main events.

**Discuss:** Write about the important aspects of the topic. Consider the arguments for and against. Support your point of view with reasons.

**Evaluate:** Assess the worth, importance or usefulness of something, using evidence. There will probably be cases to be made both for and against.

**Examine:** Put the subject 'under the microscope' looking at it in detail.

**Explain:** Make it clear and understandable how something works.

**Illustrate:** Give examples which make the point clear.

**Interpret:** Explain the meaning in your own words.

**Justify:** Give reasons to support an argument.

**Outline:** Give only the main points, showing the main structure.

**Relate:** Show the connection between things.

**State:** Write briefly the main points.

**Summarise:** Bring together the main points only omitting details or examples.

**To what extent:** Consider how far something is true or contributes to a final outcome.

**Trace:** Show how something has developed from beginning to end.

### REVISION TIPS FOR DIFFERENT SORTS OF LEARNERS

Here are ways you might try to help you with your revision. I have divided them up into sections for different sorts of learners. On the other hand, if you think any tip in any section will help, give it a try!

#### REMEMBER!

Trying to revise is useless if your books and files are not tidy and in order.

#### GET ORGANISED!

#### Visual learner

- Mindmapping.
- Put posters/Post-It notes on walls.
- Draw pictures/diagrams alongside notes.
- Use colour coding and highlighting.
- Use computers/watch videos to support topics.
- To review information close eyes and see what you remember.
- Study in a quiet place away from verbal disturbances.



## Revision Techniques - continued

### **Auditory learner**

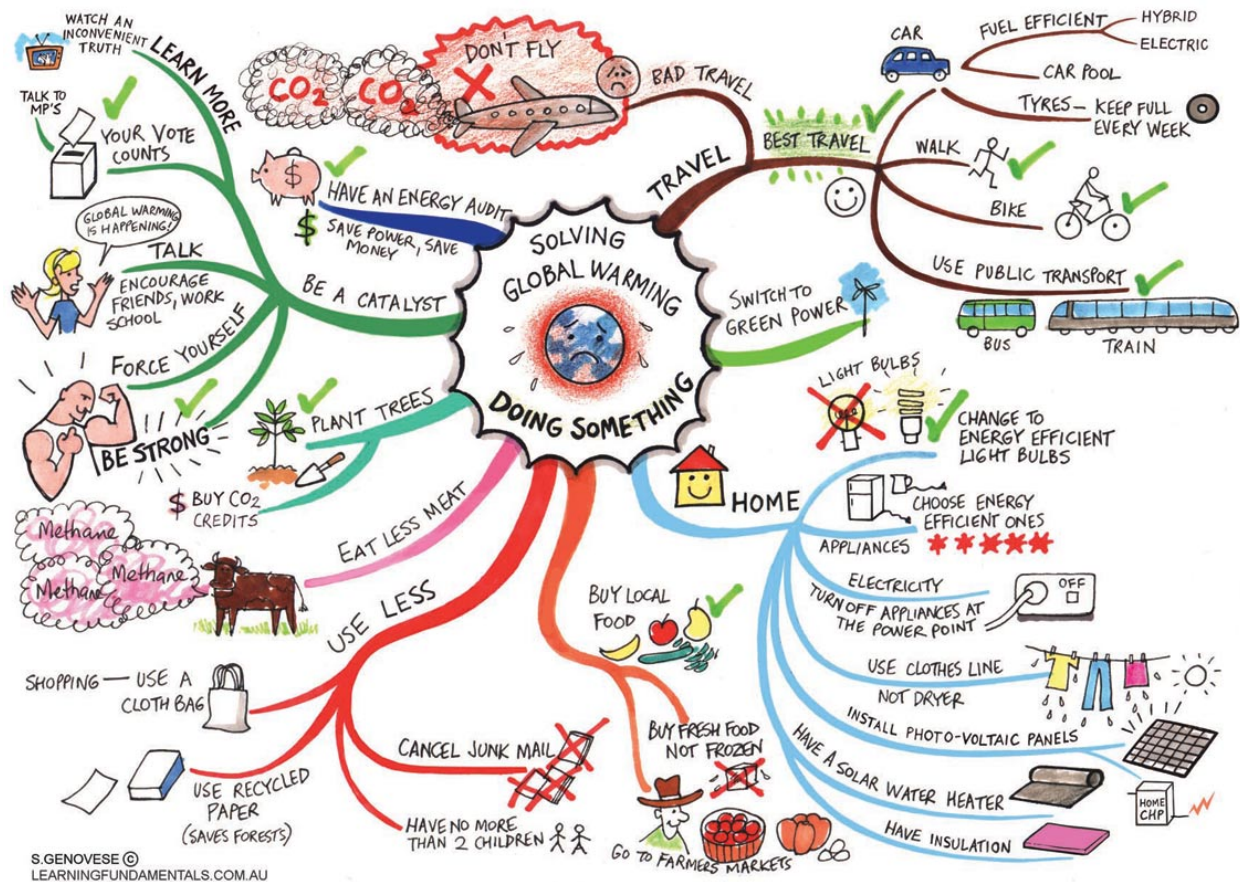
- Recording notes and play them back.
- Discussing revision with your family/friends/work buddy.
- Reading notes aloud – works well for lists formulae etc. Speak list aloud rhythmically.
- Asking questions of yourself.
- Devise quizzes with a friend and test each other.

### **Physical/kinaesthetic learner**

- Walk about talking to yourself.
- Make revision cards and put them in sequence. Question on front, answer on the back. Colour code them.
- Explain a topic to someone else to help you remember it.
- Underlining and highlighting can help you learn.
- Listen to music while you work.

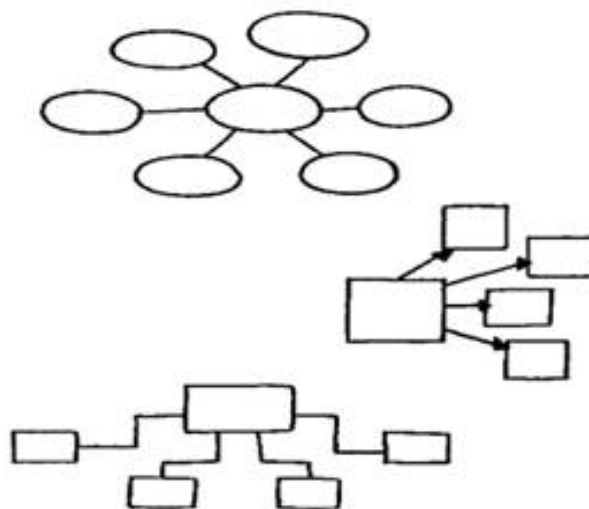
## Revision Techniques - continued

### Mind map example



**Spider chart** - main idea in circle in the centre, lines drawn to other ideas that emerge from this

### SPIDER Concept Maps



Based on ideas from 'The Exam Skills Handbook', by Stella Cottrell. Palgrave Macmillan, 2007

## **Art**

This year pupils studying GCSE Art will have their 10 hour controlled assessment when they return after the Easter holidays, starting on Tuesday 26 April. Pupils will be able to continue their controlled assessment preparation during the Easter holiday, but they should have agreed a final piece plan with their teacher before the end of the Lent term. We advise that pupils stay with this plan, and back it up in their sketchbook, along with any other tasks agreed with their teacher, rather than changing at the last minute without consultation.

GCSE Art coursework should have been completed by the end of the Lent term.

**For any further information, please contact your son's or daughter's Art teacher or Amanda Jorgensen, Head of Art, [ajorgensen@stowe.co.uk](mailto:ajorgensen@stowe.co.uk) or 01280 818241.**

# Biology

**Exam Board: AQA 4401 (Triple Science) and AQA 4463 Additional Science (Dual Award)**

## Introduction

Fifth Form Stoics doing Biology as a separate GCSE (sets T, S, R, Q and P) have the B1, B2 and B3 written exams to sit this summer along with a controlled assessment.

Fifth Form Stoics doing Science and Additional Science (sets A, B and C) have already sat B1 so only have B2 left to sit (33% of the Biology part of the courses) along with a controlled assessment completed in lessons.

## Biology Module One

Page references - AQA Science Biology (Nelson Thornes - ISBN 978-1-4085-0826-8)

<b>B1.1</b>	<b>Keeping healthy (p24-45)</b>
B1.1.1	Diet and exercise
B1.1.2	Weight problems
B1.1.3	Inheritance, exercise and health
B1.1.4	Pathogens and disease
B1.1.5	Defence mechanisms
B1.1.6	Using drugs to treat disease
B1.1.7	Growing and investigating bacteria
B1.1.8	Changing pathogens
B1.1.9	Immunity
B1.1.10	How do we deal with disease?
<b>B1.2</b>	<b>Coordination and control (p46-61)</b>
B1.2.1	Responding to change
B1.2.2	Reflex actions
B1.2.3	Hormones and the menstrual cycle
B1.2.4	The artificial control of fertility
B1.2.5	Controlling conditions
B1.2.6	Hormones and the control of plant growth
B1.2.7	Using hormones
<b>B1.3</b>	<b>Medicine and drugs (p62-75)</b>
B1.3.1	Developing new medicines
B1.3.2	How effective are medicines?
B1.3.3	Drugs
B1.3.4	Legal and illegal drugs
B1.3.5	Does cannabis lead to hard drugs?
B1.3.6	Drugs in sport
<b>B1.4</b>	<b>Adaptation for survival (p76-93)</b>
B1.4.1	Adapt and survive
B1.4.2	Adaptation in animals
B1.4.3	Adaptation in plants
B1.4.4	Competition in animals
B1.4.5	Competition in plants
B1.4.6	How do you survive?
B1.4.7	Measuring environmental change
B1.4.8	The impact of change

<b>B1.5</b>	<b>Energy in biomass (p94-105)</b>
B1.5.1	Pyramids of biomass
B1.5.2	Energy transfers
B1.5.3	Decay processes
B1.5.4	The carbon cycle
B1.5.5	Recycling organic waste
<b>B1.6</b>	<b>Variation, reproduction and new technology (p106-122)</b>
B1.6.1	Inheritance
B1.6.2	Types of reproduction
B1.6.3	Genetic and environmental differences
B1.6.4	Cloning
B1.6.5	Adult cell cloning
B1.6.6	Genetic engineering
B1.6.7	Making choices about technology
<b>B1.7</b>	<b>Evolution (p122-132)</b>
B1.7.1	Theories of evolution
B1.7.2	Accepting Darwin's ideas
B1.7.3	Natural selection
B1.7.4	Classification and evolution

## **Biology Module Two**

<b>B2.1</b>	<b>Cells, tissues and organs (p134-147)</b>
B2.1.1	Animal and plant cells
B2.1.2	Bacteria and yeast
B2.1.3	Specialised cells
B2.1.4	Diffusion
B2.1.5	Tissues and organs
B2.1.6	Organ systems
<b>B2.2</b>	<b>Organisms in the environment (p148-164)</b>
B2.2.1	Photosynthesis
B2.2.2	Limiting factors
B2.2.3	How plants use glucose
B2.2.4	Making the most of photosynthesis
B2.2.5	Organisms in their environment
B2.2.6	Measuring the distribution of organisms
B2.2.7	How valid is the data?
<b>B2.3</b>	<b>Enzymes (p164-177)</b>
B2.3.1	Proteins, catalysts and enzymes
B2.3.2	Factors affecting enzyme action
B2.3.3	Enzymes in digestion
B2.3.4	Speeding up digestion
B2.3.5	Making use of enzymes
B2.3.6	High tech enzymes
<b>B2.4</b>	<b>Energy from respiration (p178-185)</b>
B2.4.1	Aerobic respiration
B2.4.2	The effect of exercise on the body
B2.4.3	Anaerobic respiration

## Biology continued

### **B2.5 Simple inheritance in animals and plants**

- B2.5.1 Cell division and growth
- B2.5.2 Cell division in sexual reproduction
- B2.5.3 Stem cells
- B2.5.4 From Mendel to DNA
- B2.5.5 Inheritance in action
- B2.5.6 Inherited conditions
- B2.5.7 Stem cells and embryos

### **B2.6 Old and new species (p202-212)**

- B2.6.1 The origins of life on Earth
- B2.6.2 Exploring the fossil evidence
- B2.6.3 More about extinction
- B2.6.4 Isolation and the evolution of new species

## **Biology Module Three**

### **B3.1 Exchange of materials (p214-233)**

- B3.1.1 Osmosis
- B3.1.2 Active transport
- B3.1.3 The sports drink dilemma
- B3.1.4 Exchanging materials – the lungs
- B3.1.5 Ventilating the lungs
- B3.1.6 Artificial breathing aids
- B3.1.2 Exchange in the gut
- B3.1.3 Exchange in plants
- B3.1.4 Transpiration

### **B3.2 Transporting materials (p234-245)**

- B3.2.1 The circulatory system and the heart
- B3.2.2 Keeping the blood flowing
- B3.2.3 Transport in the blood
- B3.2.4 Artificial or real?
- B3.2.5 Transport systems in plants

### **B3.3 Keeping internal conditions constant (p246-263)**

- B3.3.1 Controlling internal conditions
- B3.3.2 The human kidney
- B3.3.3 Dialysis – an artificial kidney
- B3.3.4 Kidney transplants
- B3.3.5 Controlling body temperature
- B3.3.6 Treatment and temperature issues
- B3.3.7 Controlling blood glucose
- B3.3.8 Treating diabetes

### **B3.4 How humans can affect the environment (p264-285)**

- B4.4.1 The effects of the population explosion
- B4.4.2 Land and water pollution
- B4.4.3 Air pollution
- B4.4.4 Deforestation and peat destruction
- B4.4.5 Global warming
- B4.4.6 Biofuels
- B4.4.7 Biogas

B4.4.7	Making food production efficient
B4.4.9	Sustainable food production
B4.4.10	Environmental issues

### **Revision for B1, B2 and B3**

All Stoics have course-specific textbooks and revision guides so they need to ensure they cover the B1, B2 and B3 topics fully. Revision packs containing summary notes, key words lists and past papers will be produced for each module for pupils to work thorough. There are also revision materials in the Biology section of the VLE.

Some form of self testing should be included during revision, so doing the revision summary tests in the revision guides is recommended. Pupils will also have access to past APG topic tests and mark schemes to use as revision material.

Stoics will be given past paper questions by their set teachers and additional past papers with mark schemes can be found on the AQA website ([www.aqa.org.uk](http://www.aqa.org.uk)). From the home page via the route 'Past papers and mark schemes-GCSE-Biology'.

**For any further information, please contact your son's or daughter's Biology teacher or Louise Carter, Head of Biology, [lcarter@stowe.co.uk](mailto:lcarter@stowe.co.uk) or 01280 818278.**

# Chemistry

**Exam Board: AQA 4421 (Triple Science)**

**AQA 4463 Additional Science (Dual Science)**

All Triple Scientists will take the C1, C2 and C3 exams this summer

All Dual Award Scientists will just take C2, unless they are retaking their Science from last year, in which case they will also sit C1.

Much of the revision should be focused on doing past papers. All Fifth Form pupils will be sent home with a number of past papers and mark schemes to help with revision. Pupils will gain a great deal from attempting a paper and then going through carefully afterwards, referring to the mark scheme to see how they could have scored more points.

Additional papers, if required, can be found on the Chemistry department pages on the VLE or on the AQA website ([www.aqa.org.uk](http://www.aqa.org.uk)).

If any particular area of the syllabus needs attention then it is sensible to read the textbook and class notes, followed by trying to make a summary for that topic. The CGP textbook that all pupils have is specifically aimed at our syllabus so is an excellent source of information and understanding that should be read regularly.

Many pupils also opted to get the CGP Revision guide which is a good for reference and revision but not so good for looking at to help sort out understanding (the CGP textbook is better for this).

Some form of self testing should be included during revision to improve factual recall. The revision questions in the revision guide is useful for this, as are any summary questions given to classes by their teachers. The outline syllabus below can act as a good checklist to help insure that all areas of the syllabus have been covered during revision.

## **C1 Module**

### **C1.1 The fundamental ideas in chemistry**

C1.1.1 Atoms

C1.1.2 The periodic table

C1.1.3 Chemical reactions

### **C1.2 Limestone and building materials**

C1.2.1. Calcium carbonate

### **C1.3 Metals and their uses**

C1.3.1 Extracting metals

C1.3.2 Alloys

C1.3.3 Properties and uses of metals

### **C1.4 Crude oil and fuels**

C1.4.1 Crude oil

C1.4.2 Hydrocarbons

C1.4.3 Hydrocarbon fuels

### **C1.5 Other useful substances from crude oil**

C1.5.1 Obtaining useful substances from crude oil

C1.5.2 Polymers

C1.5.3 Ethanol

### **C1.6 Plant oils and their uses**

C1.6.1 Vegetable oils

C1.6.2 Emulsions

C1.6.3 Saturated and unsaturated oils

### **C1.7 Changes in the Earth and its atmosphere**

C1.7.1 The Earth's crust

C1.7.2 The Earth's atmosphere



## **C2 Module**

### **C2.1 Structure and bonding**

#### C2.1.1 Structure and bonding

### **C2.2 How structures influence the properties and uses of substances**

#### C2.2.1 Molecules

#### C2.2.2 Ionic compounds

#### C2.2.3 Covalent structures

#### C2.2.4 Metals

#### C2.2.5 Polymers

#### C2.2.6 Nanoscience

### **C2.3 Atomic structure, analysis and quantitative chemistry**

#### C2.3.1. Atomic structure

#### C2.3.2 Analysing substances

#### C2.3.3. Quantitative chemistry

### **C2.4 Rates of reaction**

#### C2.4.1 Rates of reaction

### **C2.5 Exothermic and endothermic reactions**

#### C2.5.1 Energy transfer in chemical reactions

### **C2.6 Acids, bases and salts**

#### C2.6.1 Making salts

#### C2.6.2 Acids and bases

### **C2.7 Electrolysis**

#### C2.7.1 Electrolysis

## **C3 Module**

### **C3.1 The periodic table**

#### C3.1.1 The early periodic table

#### C3.1.2 The modern periodic table

#### C3.1.3 Trends within the periodic table

### **C3.2 Water**

#### C3.2.1 Hard and soft water

#### C3.2.2 Purifying water

### **C3.3 Calculating and explaining energy changes**

#### C3.3.1 Energy from reactions

### **C3.4 Further analysis and quantitative chemistry**

#### C3.4.1 Analysing substances

### **C3.5 The production of ammonia**

#### C3.5.1 Making ammonia

### **C3.6 Alcohols, carboxylic acids and esters**

#### C3.6.1 Alcohols

#### C3.6.2 Carboxylic acids

#### C3.6.3 Esters

NB - This list is only a summary. Pupils will need detailed reference to their notes, textbook and revision book. **It is strongly recommended that only one topic is revised and understood at a time before moving to the next idea.** Attempting to learn and understand all of this Chemistry at once or repeatedly cycling through the material is unlikely to work.

**For further information, please contact the Head of Chemistry, James Tearle, [jtearle@stowe.co.uk](mailto:jtearle@stowe.co.uk) or 01280 818149.**

## Classics – Classical Greek

### CLASSICAL GREEK

Exam Board: OCR  
Classical Greek  
GCSE  
(J291 Full Course)

#### **B401 Language 1 Paper**

60 minutes  
comprehension, translation

#### **B402 Language 2 Paper**

60 minutes  
comprehension, translation

#### **B403 Prose Set Text Paper** (June 2016: Herodotus: Amasis etc.)

60 minutes  
comprehension, translation, stylistic questions, mini essay

#### **B404 Verse Set Text Paper** (June 2016: Homer: *Iliad I*)

60 minutes  
comprehension, translation, stylistic questions, mini essay

StoweNet (Stowe VLE): <http://stowenet.stowe.co.uk/classics/subject-resources/greek/gcse-greek>

OCR Specification: <http://www.ocr.org.uk/Images/82564-specification.pdf>

All OCR documents: <http://www.ocr.org.uk/qualifications/gcse-classical-greek-j291-j091-from-2012/>

### Revise

#### Language:

(you have booklets for both of these)

(a) both vocabulary lists,

(b) grammar: accidence (endings) and syntax (constructions): see list

Eton vocab tester: <http://www.etoncollege.com/Greek/grkvoc.swf>

Eton verb tester: <http://www.etoncollege.com/greek/gr.swf>

Eton noun tester: <http://www.etoncollege.com/greek/grnoun.swf>

Eton adjective tester : <http://www.etoncollege.com/Greek/gradj.swf>

### Set Texts

See your notes and Carter books.

For further information, please contact the Head of Classics, Michael Bevington,  
on 01280 818212 or [mbevington@stowe.co.uk](mailto:mbevington@stowe.co.uk).

# Classics - Latin

## LATIN

**Exam Board: WJEC**

**Latin Language**

**Level 2**

**(9520/02)**

StoweNet (Stowe VLE)

<http://stowenet.stowe.co.uk/classics/subject-resources/latin/level-2-gcse/latin-language>

### **WJEC Level 2 Latin Language**

#### **9521 Core Paper**

75 minutes

comprehension, translation, comprehension

#### **9524 Additional Paper**

45 minutes

comprehension, translation

### **Revise**

(you have booklets for both of these)

(a) both vocabulary lists,

(b) grammar: accident (endings) and syntax (constructions): see list

*WJEC specification:* <http://www.wjec.co.uk/uploads/publications/9031.pdf>

### **9521 Core Vocabulary**

Part of speech: [http://www.cambridgescp.com/downloads/Unit9521\\_DVL\\_pos\\_main.pdf](http://www.cambridgescp.com/downloads/Unit9521_DVL_pos_main.pdf)

Alphabetical: [http://www.cambridgescp.com/downloads/Unit9521\\_DVL\\_alpha\\_main.pdf](http://www.cambridgescp.com/downloads/Unit9521_DVL_alpha_main.pdf)

**Tester:** <http://www.cambridgescp.com/singles/wjec/voc.html?u21.t>

### **9524 Additional Vocabulary**

Part of speech: [http://www.cambridgescp.com/downloads/Unit9524\\_DVL\\_pos\\_main.pdf](http://www.cambridgescp.com/downloads/Unit9524_DVL_pos_main.pdf)

Alph: [http://www.cambridgescp.com/downloads/Unit9524\\_DVL\\_alphabetical\\_main.pdf](http://www.cambridgescp.com/downloads/Unit9524_DVL_alphabetical_main.pdf)

**Tester:** <http://www.cambridgescp.com/singles/wjec/voc.html?u24.t>

### **9521 and 9524 Combined Vocabulary Tester**

<http://www.cambridgescp.com/singles/wjec/voc.html?u2124.t>

**For further information, please contact the Head of Classics, Michael Bevington,  
on 01280 818212 or [mbevington@stowe.co.uk](mailto:mbevington@stowe.co.uk).**

# Design and Technology

## Resistant Materials and Graphic Products

**Exam Board: Edexcel 2RMO1**

### **Resistant Materials: Unit 2. Knowledge and Understanding of Materials.**

This unit requires you to demonstrate your knowledge and understanding of eight areas related to resistant materials in a 1½ hour exam. These eight sections relate to the chapters in your textbook. The areas are as follows:

**Materials and Components:** You need to understand a wide range of materials and components to make informed choices about their use in products or components. **Pages 12-31**

You need to know about the properties of, the advantages and disadvantages, and uses and applications of: woods, manufactured boards, ferrous metals, non-ferrous metals, mild steel and brass, thermoplastics, thermosetting plastics, composites, smart materials, properties of materials e.g. ductility, malleability, hardness, toughness, elasticity etc.

**Tools and Equipment:** You need to be able to identify a variety of tools and pieces of equipment used for marking out and measuring, and tools related to various wasting processes. You should be able to name them and describe their uses and applications. **Pages 34-43**

You need to know about the appearance of, uses for, processes used for and the advantages and disadvantages of: rules, squares, gauges, scribes, punches, templates, micrometers, saws, planes, chisels, files, drills, abrading tools.

**Industrial and Commercial Processes:** You need to be able to show an awareness of the scale of production, materials processing, joining methods, adhesives, heat treatment, finishing techniques, jigs and patterns and health and safety so that when you design and make products you are aware of what can be done with materials. **Pages 46-83**

You need to know about: characteristics, applications and the advantages and disadvantages of: one-off production, batch production, mass production. Processes relating to a range of materials and processing and forming techniques and their respective advantages and disadvantages when joining materials and components. Temporary and permanent joining techniques and their respective advantages and disadvantages when joining materials and components. Adhesives, including their advantages and disadvantages when joining materials. Heat treatment processes, including their advantages and disadvantages and how they can be used to alter the properties of metals. Finishing techniques and how they are used to improve the performance, quality and appearance of manufactured products. How to use jigs and patterns when manufacturing products. How to describe safe working practices. How to identify workshop hazards and precautions.

**Analysing Products:** Products surround us and we use and interact with them in all that we do, so you should be able to make constructive comments about products and to make comparisons between similar products using a set of specific criteria. **Pages 86-91**

You need to be able to: Take account of form, function, user requirements, performance requirements, material and component requirements, scale of production and cost and sustainability when analysing products.

**Designing Products:** This is one of the reasons that you are studying the subject. You should be able to respond creatively and imaginatively to a set design brief and given list of specification points. This section to be practised with past papers. **Pages 96-99**

**Technology:** Technology is developing at an ever increasing pace and you should be aware of the impact ICT is having on society and the way in which digital media new technologies are developing. **Pages 102-109**

You need to know: The role of ICT in design, development, marketing and sale of products. The effects of ICT on society. How email is used. About EPOS. How the internet is used for sales and marketing. The use of digital media. Bluetooth technology. What CAD/CAM is. About virtual modelling and testing. About laser cutting. About CNC milling and turning. About rapid prototyping.

**Sustainability:** Sustainable design involves using energy and materials in such ways to minimise the depletion of finite resources to reduce waste and pollution. **Pages 112-117**

You need to know: About the principles of minimising waste throughout the product life cycle. How to apply the 4 Rs.

About the use of renewable energy sources. About the responsibility of developed countries for minimising the impact of industrialisation.

**Ethical Design and Manufacture:** In today's society, consumerism has created an ever-increasing level of demand for new products and designers must consider ethical, moral and cultural issues when looking for new ideas and products.

**Pages 120-121**

You need to know: About the uses, advantages and disadvantages of built-in obsolescence and offshore marketing. About cultural issues when designing products.

**Exam Board: Edexcel 2GR01**

**Graphic Products: Unit 2. Knowledge and Understanding of Materials.**

Unit 2: This unit requires you to demonstrate your knowledge and understanding of eight areas related to Graphic products in a 1½ hour exam. The introduction of the new syllabus has seen the publication of a textbook written for the Edexcel 2010 course. The book contains all the specific theory needed to cover and also provides you with exemplar questions. In addition to this PowerPoint slides can be accessed on the 'S' drive to further help and support your revision.

The areas are as follows:

**Materials and Components:** You need to understand a wide range of materials and components to make informed choices about their use in products or components. **Pages 12-33**

You need to learn the aesthetic, functional and mechanical properties, application and advantages and disadvantages of the following in the production of graphic products and commercial packaging: PAPER AND BOARD **Pages 12 -15**, METALS **Pages 16-17**, POLYMERS **Pages 18-21**, GLASS **Pages 22-23**, WOODS **Pages 24-25**, COMPOSITES **Pages 26-27**, MODERN AND SMART MATERIALS **Pages 28-31**, COMPONENTS **Pages 32-33**

Use of the following technical drawing equipment when designing graphic products:

- Pencils – hard, general purpose and soft
- Set squares - 45/30/60 degree
- Compasses
- Rulers
- Drafting aids - circle/ellipse templates, flexicurves/frenchcurves
- Drawing boards

**Industrial and Commercial Processes:** You need to be able to show an awareness of the scale of production, materials processing, joining methods, adhesives, finishing techniques, printing processes and health and safety so that when you design and make products you are aware of what can be done with materials. **Pages 36-59**

SCALE OF PRODUCTION **Pages 36-39**, MODELLING AND PROTOTYPING **Pages 40-43**, FORMING TECHNIQUES **Pages 44-47**, JOINING TECHNIQUES **Pages 48-49**, FINISHING TECHNIQUES **Pages 50-51**, PRINTING PROCESSES **Pages 52-57**, HEALTH AND SAFETY **Pages 58-59**

**Analysing Products:** Products surround us and we use and interact with them in all that we do, so you should be able to make constructive comments about products and to make comparisons between similar products using a set of specific criteria. You need to be able to relate materials and components that you have previously learned to a given product. **Pages 62-65**

You need to learn that when analysing a product that the following factors need to be taken into account:

- Form - Why is the product shaped/styled as it is?
- Function - What is the purpose of the product?
- User requirements - What qualities make the product attractive to potential users?
- Performance requirements - What are the technical considerations that must be achieved within the product?
- Material and component requirements - How should materials and components perform within the product?

**Designing Products:** This is one of the reasons that you are studying the subject. You should be able to respond creatively and imaginatively to a set design brief and given list of specification points. This section to be practised with past papers. **Pages 68-73**

## Design and Technology continued

**Technology:** Technology is developing at an ever increasing pace and you should be aware of the impact ICT is having on society and the way in which digital media new technologies are developing. **Pages 74-87.**

INFORMATION TECHNOLOGY **Pages 74-77**, DIGITAL AND NEW TECHNOLOGY **Pages 78-81**, CAD/CAM **Pages 82-85**

**Sustainability:** Sustainable design involves using energy and materials in such ways to minimise the depletion of finite resources to reduce waste and pollution. **Pages 88-97**

MINIMISING WASTE PRODUCTION **Pages 88-89**, RENEWABLE SOURCES OF ENERGY **Pages 90-93**, CLIMATE CHANGE **Pages 96-97**

**Ethical Design and Manufacture:** In today's society, consumerism has created an ever-increasing level of demand for new products and designers must consider ethical, moral and cultural issues when looking for new ideas and products. **Pages 100-105**

MORAL, SOCIAL AND CULTURAL ISSUES

**For further information, please contact the Head of Design and Technology, Matthew Smith, [msmith@stowe.co.uk](mailto:msmith@stowe.co.uk) or 01280 818256.**

## Drama and Theatre Studies

Exam Board: WJEC 1450

Qualification Accreditation Number: 500/4619/6

Exam board link: [www.wjec.co.uk](http://www.wjec.co.uk)

### Overview

The Fifth Form Drama WJEC course is a direct continuation of the course begun in the Fourth Form. However, with all of the GCSE marks for the subject to be submitted during this year, the course of study is very much dictated by exam requirements.

### Michaelmas term

#### **DR 1 DEvised PRACTICAL PERFORMANCE, 60%, 120 marks (120 UMS)**

##### **DR1a Task one: Devised Performance 40%**

Stoics work in groups of no more than five and no less than two on a Devised piece of theatre based on a theme/title supplied by the Exam Board and then linked to a performance style/genre or practitioner (i.e. Physical Theatre).

##### **DR1b Task two: Written Project Report 20%**

Stoics complete a written report, broken down into three distinct sections, on the developmental, rehearsal and realisation of practical work they completed in Task one. This is completed under formal supervision (Controlled Assessment).

***PLEASE NOTE THAT THE WORK FOR DR1a/b HAS NOW BEEN COMPLETED AND SUBMITTED FOR ASSESSMENT***

### Lent term and Easter revision

Focus moves to the study of the set text **Unit Three, DR 3 WRITTEN EXAMINATION, 20%, 50 marks (40 UMS)** and the second practical project, **Unit Two, DR 2 PERFORMANCE FROM A TEXT, 20%, 50 marks (40 UMS)**

The Stoics have to select, rehearse and perform a short extract from a published, scripted play. This rehearsal work will be accompanied by a working notebook/diary to enable the candidates to prepare for the relevant question which appears in the written exam, **DR 3**.

***The assessment of these scripted pieces is confirmed for Thursday 5 May 2016.***

By the time parents and Stoics receive this study guide; **ALL** candidates will know which extract they are going to be performing and, more importantly, with who. Preparation and planning over the Easter break can therefore be focused on: Learning lines; developing an accent if required; thinking carefully about the motivation of your character within the scene; preparing ideas for a suitable costume and props and making notes on any decisions/thoughts and ideas you have had within this creative/rehearsal process.

### Summer term

**Unit Three, DR 3 WRITTEN EXAMINATION, 20%, 50 marks (40 UMS)**, consists of questions on the set text play studied; **'BURNING MONKEY' by Sera Moore Williams.**

All Stoics have a copy of the text and this should be a vital addition to their Easter Revision folders. Stoics will be given extra practice in answering the type of exam style questions on it following regular classwork and the February 'mock'. They need to answer questions on the set text from the viewpoint of; an *actor, designer or director* and also be able to evaluate their final **DR 2 performance** piece from a text. Candidates are allowed to have an unmarked copy of the set text with them in the exam. (This is supplied by the Drama Department.)

***The DR3 written exam is confirmed for Tuesday 5 May 2016.***

**For further information, please contact the Director of Drama, Nick Bayley, [nbayley@stowe.co.uk](mailto:nbayley@stowe.co.uk) or 01280 818146.**

## English Language and English Literature

Exam Board: CIE English Language (0500) English Literature (0486)

Please note that all pupils will be provided with a comprehensive revision pack which will cover all aspects of the examinations and provide ample revision exercises.

### English Language

All pupils have completed coursework which is worth 50% of the total marks. The remaining 50% is the English Language exam, which is assessed through one paper. The two hour exam is broken down into three questions:

- **Question One: (20 marks)** This is worth 40% of the marks for the paper with the majority (15 out of a possible 20) going on the quality of your reading of Passage A and the minority (5 out of a possible 20) on the quality of your writing. You will be required to understand a text, identify the main information in it, imagine the possible outcomes of the events narrated in the text and then write this up **using your own words** in a different format to the original text.
- **Question Two: (10 marks)** This is worth 20% of the marks for the paper. You will be required to demonstrate skills of close analysis of **powerful individual words and phrases**, explaining their meaning and analysing their impact on a reader.
- **Question Three: (20 marks)** This is worth 40% of the total marks for the paper. The question is divided into two parts which test your ability to select key information (no need to use your own words in the first part) from Passage B and then to write it up in a summary. Part A is worth 15 marks and you need to find 15 points from the text. Part B is worth 5 marks and requires you to write a summary of the 15 points from Part A, but this time using your own words as precisely and concisely as possible.

### English Literature

All pupils have completed coursework on *Henry V* and *An Inspector Calls* which is worth 25% of the total marks. The remaining 75% is the English Literature Exam, which is assessed through two papers.

- **Paper 1 - Poetry and Prose (1 hour 30 minutes)** There are two sections to this paper:  
Section A: One question on poetry (from a choice of two) on the poems from *Songs of Ourselves*. Worth 25 marks.  
Section B: One question (from a choice of two) on one of the short stories from *Stories of Ourselves*. Worth 25 marks.

In both sections for the poetry, the poems will be printed out for you in full, while in the short story there will be one passage based question and one whole story question. **We recommend you choose the passage based question for the short story as it makes the close analysis much easier.**

- **Paper 2 - Drama (45 minutes)** One question on *An Inspector Calls* (from a choice of two) - you can either choose the passage based question or the whole play question. You will be able to bring an unannotated copy of the play (provided for you in the exam hall) with you into the exam.

For further information, please contact the Head of English, William Goldsmith, [wgoldsmith@stowe.co.uk](mailto:wgoldsmith@stowe.co.uk) or 01280 818151.



# Geography

**Exam Board: AQA 4032**

## **Paper 1 - PEOPLE AND THE PHYSICAL ENVIRONMENT**

You will be required to answer three questions in total, one question from Section A, one from Section B, and one more from either Section A or B (1hr 30min). We have prepared you to answer Question 1 and classes will have studied 2 other topics from the following questions:

### **Question 1 THE RESTLESS EARTH (A)**

Question 4 THE LIVING WORLD (A)

Question 5 WATER ON THE LAND (Rivers) (B)

Question 7 THE COASTAL ZONE (B)

See the AQA website for the specification, past papers and mark-schemes since 2012 (link below):

<http://www.aqa.org.uk/subjects/geography/gcse/geography-a-9030>

All past papers and marking schemes since 2010 are also available on the VLE.

## **Paper 2 - PEOPLE AND THE HUMAN ENVIRONMENT**

You will be required to answer three questions in total, one question from Section A, one from Section B, and one more from either Section A or B (1hr 30min). We have prepared you to answer Question 6 and classes will have studied 2 other topics from the following questions:

Question 1 POPULATION (A)

Question 2 CHANGING URBAN ENVIRONMENTS (A)

Question 4 THE DEVELOPMENT GAP (B)

### **Question 6 TOURISM (B)**

See the AQA website for the Specification, past papers and mark-schemes since 2012 (link below):

<http://www.aqa.org.uk/subjects/geography/gcse/geography-a-9030>

All past papers and marking schemes since 2010 are also available on the VLE.

**The following published revision guides may also be useful:**

- CGP GCSE Geography AQA A Specification – The Revision Guide (ISBN 978 1 84762 378 2)  
AQA (A) GCSE Geography Revision Guide (Philip Allan Revision Guides) by Jane Ferretti and Brian Greasley  
(Paperback - 25 Feb 2011)
- GCSE Geography AQA (A) Exam Practice Workbook by Richard Parsons (Paperback - 4 Jan 2010)

There are many revision materials, case studies, past papers and mark schemes to be found on the GEOGRAPHY DEPARTMENT VLE. Many external websites also offer excellent revision materials, the following are worthwhile:

<http://www.coolgeography.co.uk/GCSE/AQA%20GCSE.htm>

<http://www.bbc.co.uk/schools/gcsebitesize/geography/>

<http://revisionworld.com/gcse-revision/geography>

**For further information, please contact the Head of Geography, Sarah Murnane, on 01280 818275 or [smurnane@stowe.co.uk](mailto:smurnane@stowe.co.uk).**

# History

**Exam Board: Edexcel (International GCSE)**

**Paper 1: The Cold War, 1945-1962 and Germany, 1918-1945**

**Germany, 1918-45**

- The establishment of the Weimar Republic and its early problems
- The recovery of Germany, 1924-29
- The rise of Hitler and the Nazis
- Life in Nazi Germany
- Germany during the Second World War

**The Cold War, 1945-62**

- Reasons for the Cold War
- Early developments in the Cold War, 1945-49
- The Cold War in the 1950s
- The Berlin Crisis of 1961
- The Cuban Missile Crisis
- 

**Paper 2: USA, 1917-29 and The Middle East, 1919-93**

**USA, 1917-29**

- The impact of the First World War on the USA
- Immigration
- Prohibition and gangsterism
- Mass production and the stock market boom
- The Roaring Twenties
- The position of black Americans

**The Middle East, 1919-93**

- Build up of tension in Palestine
- The creation of Israel, the war of 1948-9 and the Suez Crisis of 1956
- The Arab-Israeli conflicts of 1967 and 1973
- Superpower involvement in the Middle East
- The attempts to find a lasting peace, 1979-95

**Advice to parents:**

Stoics have been provided with resource packs to help with revision. It is important that these are studied over the Easter break. Copies of resources for the course are available on the VLE. This includes worksheets, exam-style questions, relevant clips, information, mini quizzes and a more detailed breakdown of the content that pupils are expected to know. Completing a number of past papers is also highly recommended.

There are a number of good revision guides on the above topics but none that are written explicitly for the course that pupils are taking. However, the main Pearson text book, which pupils have been provided with, is approved by the exam board and offers sample answers and specific advice about the course.

**For further information, please contact the Head of History, Paul Griffin, [pgriffin@stowe.co.uk](mailto:pgriffin@stowe.co.uk) or 01280 818322.**

# Mathematics

## Exam Board: Edexcel (1MA0) LINEAR

### Assessment Overview

- Each paper contributes 50% of the qualification
- Two written papers: Paper 1 (Non-calculator) and Paper 2 (Calculator)
- Each paper lasts 1 hour and 45 minutes
- Each paper contains 100 marks
- Grades A\* - D available
- Available in June only for Fifth Form and below (There is a retake option in November for Sixth Form only)

### Content Overview

#### 1. Number

- Four operations
- Accuracy
- Use of calculators
- Factors and multiples
- Cubes, roots and squares
- Index Laws
- Surds
- Fractions, decimals and percentages
- Inverse operations
- Ratio
- Calculations with standard form
- Recurring decimals and proofs
- Using percentage and repeated percentage change
- Compound interest
- Reciprocals
- Upper and lower bounds

#### 2. Algebra

- Notation
- Graphs
- Graphs of functions
- Expressions and formulae
- Factorising
- Sequences
- Co-ordinates in 2D and 3D
- Straight line graphs
- Gradients of lines
- Real life graphs
- Linear and quadratic equations
- Changing the subject of the formula
- Inequalities
- Trial and improvement
- Simultaneous equations
- Graphs of functions
- Graphs of loci
- Quadratic graphs

#### 3. Geometry

- Angles at a point
- Angles in triangles, quadrilaterals and polygons
- Symmetry
- Perimeter and area of circles and polygons
- Circle theorems
- 3-D shapes
- Volume
- Congruence
- Pythagoras' Theorem
- Trigonometry
- Transformations
- Constructions
- Loci
- $\frac{1}{2} ab \sin C$
- Mensuration
- Vectors

#### 4. Measure

- Scales, units and measures
- Compound measures
- Bearings
- Scale drawings

#### 5. Statistics

- Handling data cycle
- Data collection
- Data representation
- Analysing data
- Interpreting data
- Sampling
- Box plots, histograms and cumulative frequency

#### 6. Probability

- Probability measures
- Relative probability
- Mutually exclusive outcomes
- Mutually exclusive and independent events
- Tree diagrams
- Addition and multiplication of probabilities

For further information, please contact the Head of Maths, Mikkel Moller, [mmoller@stowe.co.uk](mailto:mmoller@stowe.co.uk) or 01280 818287.

## Modern Foreign Languages (French, German and Spanish)

**Exam Board: AQA French 4658, German 4668 and Spanish 4698**

All pupils have now completed ALL their Controlled Assessments in Speaking and Writing, which comprise 60% of their GCSE. The remaining 40% will be their Reading and Listening examinations in the Summer term.

The Listening paper is either a 35 or 50 minute examination and pupils are entered either for Foundation or Higher Tier. All the questions are asked and answered in English.

The Reading paper is either a 30 or 50 minute examination and pupils are entered either for Foundation or Higher Tier. All the questions are asked and answered in English.

In preparation for these papers, pupils will need to revise and consolidate topic-based vocabulary. Resources and support material can be found as listed below:

- AQA GCSE vocabulary glossary  
(all pupils have been given a hard copy; the same list can be found on line at [www.aqa.org.uk](http://www.aqa.org.uk) and is available on the vocab learning website [quizlet.com](http://quizlet.com));
- Listening and Reading practice papers on the VLE or distributed by class teachers;
- Double page spreads at the end of each module in their textbooks;
- Class notes and vocabulary tests done over the course of the year;
- Online resources for vocabulary building exercises:  
[www.languagesonline.org.uk](http://www.languagesonline.org.uk)  
[www.bbc.co.uk/education](http://www.bbc.co.uk/education)  
[www.kerboodle.com](http://www.kerboodle.com) (Spanish only)  
[www.quizlet.com](http://www.quizlet.com)

**For further information please contact:**

**Tracy Jones: Head of the Faculty of Languages and Head of French - [tjones@stowe.co.uk](mailto:tjones@stowe.co.uk) or 01280 818162**

**Collette Stirzaker: Head of Spanish - [cstirzaker@stowe.co.uk](mailto:cstirzaker@stowe.co.uk) or 01280 818338**

**Alice Tearle: Head of German - [atearle@stowe.co.uk](mailto:atearle@stowe.co.uk) or 01280 818254**

# Music

## Exam Board: Edexcel 2MUO1

Pupils should by now have completed their coursework (60% of the GCSE), with the only remaining element being the important final listening exam (40%). This exam is based entirely on the 12 set works listed below.

In preparation for the exam, pupils should ensure **all** of the following are done:

- On the VLE Pupils will find under GCSE Music a full set of revision notes. Please visit Academic -> Music -> Subject Resources -> Edexcel GCSE -> Set Works. Here you will find videos of each set work, plus notes (click on the name of the piece for the notes).
- They have also been given a revision booklet with notes and mindmaps, plus past questions categorised by each set work.
- They should go through all past questions and exam papers we have given them. They should also be creating their own revision resources that allow them to handle the same information in multiple ways, e.g. mindmaps, podcasts, writing example essays on each set work, creating their own potential exam questions, creating mark schemes etc.
- They should listen to the set works many, many times. They are available on the VLE or directly through YouTube. They have also been emailed audio files to import into iTunes or similar. They should, if possible, sync their iPods with the set works, so that they can listen to them on the move.

## Area of Study 1: Western Classical Music 1600 – 1899

1. Handel: 'And the Glory of the Lord' from *Messiah*
2. Mozart: First Movement from Symphony No. 40 in G minor
3. Chopin: Prelude No. 15 in D-flat major 'Raindrop', Op. 28

## Area of Study 2: Music in the 20th Century

1. Schoenberg: 'Peripetie' from Five Orchestral Pieces, Op. 16
2. Bernstein: 'Something's Coming' from *West Side Story*
3. Steve Reich: Third Movement from *Electric Counterpoint*

## Area of Study 3: Popular Music in Context

1. Miles Davis: 'All Blues' from *Kind of Blue*
2. Jeff Buckley: 'Grace' from *Grace*
3. Moby: 'Why Does My Heart Feel So Bad' from *Play*

## Area of Study 4: World Music

1. Capercaillie: 'Skye Walking Song' from *Nàdurra*
2. Rag Desh
3. Koko: 'Yiri'

**For further information please contact:**

**Alexander Aitken: Head of Academic Music - [aaitken@stowe.co.uk](mailto:aaitken@stowe.co.uk) or 01280 818120**

**Miles Nottage: Head of Rock, Pop and Jazz - [mnottage@stowe.co.uk](mailto:mnottage@stowe.co.uk) or 01280 818268**

# Physics

Exam Board: AQA 4451 (Triple Science) - AQA 4463 Additional Science (Dual Science)

Page references - AQA Science Physics (Nelson Thornes - ISBN 978-1-4085-0832-9)

## Physics One

<b>P1.1</b>	<b>The transfer of energy by heating processes and the factors that affects the rate at which that energy is transferred (p24-43)</b>
P1.1.1	Infrared radiation
P1.1.2	Kinetic theory
P1.1.3	Energy transfer by heating
P1.1.4	Heating and insulating buildings
<b>P1.2</b>	<b>Energy and efficiency (p44-53)</b>
P1.2.1	Energy transfers and efficiency
<b>P1.3</b>	<b>The usefulness of electrical appliances (P54-63)</b>
P1.3.1	Transferring electrical energy
<b>P1.4</b>	<b>Methods we use to generate electricity (p64-77)</b>
P1.4.1	Generating electricity
P1.4.2	The National Grid
<b>P1.5</b>	<b>The use of waves for communication and to provide evidence that the universe is expanding (p78-106)</b>
P1.5.1	General properties of waves
P1.5.2	Reflection
P1.5.3	Sound
P1.5.4	Red-shift

## Physics Two

<b>P2.1</b>	<b>Forces and their effects (p108-133)</b>
P2.1.1	Motion, motion graphs and resultant forces
P2.1.2	Forces and motion
P2.1.3	Forces and braking
P2.1.4	Forces and terminal velocity
P2.1.5	Forces and elasticity
<b>P2.2</b>	<b>The kinetic energy of objects speeding up or slowing down (p134-149)</b>
P2.2.1	Forces and energy
P2.2.2	Momentum
<b>P2.3</b>	<b>Currents in electrical circuits (p150-163)</b>
P2.3.1	Static electricity
P2.3.2	Electrical circuits
<b>P2.4</b>	<b>Using mains electricity safely and the power of electrical appliances (p164-177)</b>
P2.4.1	Household electricity
P2.4.2	Current, charge and power
<b>P2.5</b>	<b>What happens when radioactive substances decay and the uses and dangers of their emissions (p178-191)</b>
P2.5.1	Atomic structure
P2.5.2	Atoms and radiation
<b>P2.6</b>	<b>Nuclear fission and nuclear fusion (p192-205)</b>
P2.6.1	Nuclear fission
P2.6.2	Nuclear fusion

## Physics Three - Triple Science Only

### **P3.1 Medical applications of physics (p208-225)**

P3.1.1	X-rays
P3.1.2	Ultrasound
P3.1.3	Lenses
P3.1.4	The eye
P3.1.5	Other applications using light

### **P3.2 Using physics to make things work (p226-241)**

P3.2.1	Centre of mass
P3.2.2	Moments
P3.2.3	Hydraulics
P3.2.4	Circular motion

### **P3.3 Keeping things moving (p242-255)**

P3.3.1	The motor effect
P3.3.2	Transformers

### **Note**

Dual award – pupils sit P1 at the end of the Fourth Form and P2 at the end of the Fifth Form.

Triple award – pupils sit P1, P2, and P3 at the end of the Fifth Form.

### **Other Resources:**

- a) The Physics Department VLE section → REVISION → Fourth Form and Fifth Form, there you will find revision booklets, revision summaries, keywords and crosswords, excellent revision power points of the whole course and an Alfiesoft revision question section.
- b) [www.aqa.org.uk](http://www.aqa.org.uk) find the Science page and you can access past papers.
- c) <http://www.bbc.co.uk/bitesize/> for revision.
- d) CGP GCSE Physics Exam board AQA – The Revision Guide – ISBN 978 1 84762 627 1

**For further information, please contact the Head of Physics, Dick Carpenter, [rcarpenter@stowe.co.uk](mailto:rcarpenter@stowe.co.uk) or 01280 818223.**

## **Religious Studies** **(Full Course) and (Short Course)**

**Exam Board: AQA GCSE Religious Studies B: Full and Short Courses (4055)**

**Short course candidates study Unit 3 only.**

**Full course candidates study Units 3&4.**

Written papers - 2 x 1 hour 30 minutes (Full course)

Written papers – 1 x 1 hour 30 minutes (Short course)

Candidates answer four structured essay questions from the choice of six given.

Each question is worth 18 marks.

There are four additional marks on the paper for spelling, punctuation and grammar.

Each question paper is worth 76 marks in total.

### **Unit 3 - Religion and Morality**

#### **Topic 1 Religious Attitudes to Matters of Life (Medical Ethics)**

Within this topic candidates should be aware of religious beliefs and teachings concerning the value of life, the importance of health and healing and who is responsible for life. They should be aware of the religious and ethical issues raised by new medical technologies for medical research and practice and for the ways in which people respond to situations within this area.

#### **Topic 2 Religious Attitudes to the Elderly and Death**

Within this topic candidates should be aware of religious beliefs and teachings concerning the value of life, the treatment of the elderly, death and what happens after death. They should be aware of the implications of these and of developments in medicine and medical ethics for the ways in which people respond to situations within this area.

#### **Topic 3 Religious Attitudes to Drug Abuse**

Within this topic candidates should be aware of religious beliefs and teachings concerning the mind and body. They should be aware of the implications of these in relation to the taking of drugs for non-medical purposes and with reference to the following areas: religious attitudes to the use of drugs, including medically prescribed, legal and illegal drugs; legally accepted drugs and their effects, including caffeine, alcohol, tobacco.

#### **Topic 4 Religious Attitudes to Crime and Punishment**

Within this topic candidates should be aware of religious beliefs and teachings concerning human nature, wrong-doing and the punishment of offenders, and repentance and forgiveness. They should be aware of the implications of these beliefs and teachings in relation to concepts of right and wrong, conscience, duty and responsibility.

#### **Topic 5 Religious Attitudes to Rich and Poor in British Society**

Within this topic candidates should be aware of religious beliefs and teachings concerning individual wealth and poverty and explanations for the existence of both rich and poor in society.

#### **Topic 6 Religious Attitudes to World Poverty**

Within this topic candidates should be aware of religious beliefs and teachings on world poverty and should be aware of how religious leaders and other faith members have interpreted these texts in the light of contemporary life. Teachings from religions, both traditional and contemporary, about world poverty; religious concepts of justice, stewardship and compassion.

### **Unit 4 - Religious Philosophy and Ultimate Questions**

#### **Topic 1 The Existence of God**

Candidates need only refer to **one** religious tradition in this section. Candidates will be expected to know the following terms: theist, atheist, agnostic. Candidates may be asked questions on arguments for God's existence.

#### **Topic 2 Revelation**

This topic looks at the idea of God's self revelation to humanity. It explores the reasonableness of the evidence of revelation, and why revelation is questioned as a real experience.



**Topic 3 The Problems of Evil and Suffering**

This topic explores the concepts of evil and suffering in a created world, God's responsibility for each, and the human response.

**Topic 4 Immortality**

This topic considers the meaning of death, and the afterlife. It also explores the reasonableness of such belief, as well as the problems created by it.

**Topic 5 Miracles**

This topic considers whether miracles occur, and if we can properly define them. It also explores the idea that miracles are based on interpretation rather than real evidence and, as such, are always subject to doubt and cynicism.

**Topic 6 Science and Religion**

This topic compares and contrasts science and religion, trying to see how similar or different the two are. It particularly looks at two key issues – the origins of the universe, and the origins of life.

**For further information, please contact the Head of Philosophy and Religion, Colin Bray,  
on 01280 818281 or cbray@stowe.co.uk.**

## Sports Science

### Pupils should bring home:

1. Fourth and Fifth Form files/notes – including any revision resources already completed.
2. An electronic copy of their Personal Exercise Programme (PEP) write up.
3. Glossary of terms booklet.
4. Pearson GCSE PE Revision Guide which they have been using as their textbook.
5. Booklet of sample exam style questions.

### Pupils to:

- Complete revision of the whole course that should be completed in the most effective style of revision for that particular pupil.
- Use the topic list table as a guide and a check-list to ensure all areas have been covered.
- Learn the definitions and give developed statements where necessary in the glossary of terms booklet.
- Complete answers to the booklet of exam style questions. These should be done **after** completing detailed revision of each topic. This booklet will also contain the relevant mark schemes.

Topic List	Details of what is included. Use this as a check-list for your revision.
Topic 1.1.1 Healthy, active lifestyles and how they could benefit you	Investigate the reasons why people take part in sport and physical activity. Why do they (the pupils) take part in sport?
Topic 1.1.2 Influences on your healthy, active lifestyle	Initiatives, influences and opportunities that get and keep people involved in sport and physical activity for health and competitive reasons.
Topic 1.1.3 Exercise and fitness as part of your healthy, active lifestyle	Definitions of health, fitness and exercise. Health-related exercise (CV fitness/muscular strength/muscular endurance/flexibility/body composition) and skill-related fitness (agility/balance/coordination/power/reaction time/speed)
Topic 1.1.4 Physical activity as part of your healthy, active lifestyle	Assessing readiness for exercise - PAR-Q Testing - assessing fitness levels via a series of tests, for example: Cooper's 12-minute run; Illinois Agility Run; Sergeant Jump; Standing Broad Jump; hand grip test etc. Principles of training; Setting SMART goals for the Personal Exercise Programme (PEP). Methods of training - pupils experience each method or a selection of methods of training. Linking methods of training with health-related exercise and skill-related fitness. Experiencing exercise sessions to match fitness requirements to individuals and activities. Experiencing and understanding the training session warm-up; main activity and cool down. Explaining the principles of training within an exercise programme. Aerobic and anaerobic training. Heart rates - plotting examples and evaluating results from practical experience. Graphical explanations of target zones and thresholds of training from practical experience.
Topic 1.1.5 Diet	Exercise, diet, work and rest. Explain the requirements of a balanced diet. The factors of a balanced diet. Diet in relation to exercise timing of dietary intake and reasons.

Topic 1.2.1 Physical activity and your healthy mind and body	Somatotypes. Endomorph - mesomorph - ectomorph. Understanding and explaining with examples the terms: anorexia, obesity, overfat, overweight, underweight, and how they relate to sports performance. Gender, height, weight, bone structure, muscle girth, optimum weight and their influence in sport. Smoking, alcohol and sport. Drugs in sport. Rules and risk assessment in sport.
Topic 1.2.2 A healthy, active lifestyle and your cardiovascular system	Exercise and physical activity - the effects on the CV system. Immediate and short-term effects. The effects of regular and long-term participation. The importance of rest for adaptation and recovery - diet for cholesterol (HDL and LDL). Recreational drugs and the CV system.
Topic 1.2.3 A healthy, active lifestyle and your respiratory system	Exercise and physical activity - the effects on the respiratory system. Immediate and short-term effects. The effects of regular and long-term participation. The importance of rest for adaptation and recovery. Recreational drugs and the respiratory system.
Topic 1.2.4 A healthy, active lifestyle and your muscular system	Exercise and physical activity and the effects on the muscular system, and main muscle groups. Immediate and short-term effects. Isometric and isotonic contractions. The effects of regular and long-term participation. Exercise and potential muscle injuries, muscle strains, muscle atrophy, treatment (RICE). The importance of rest for adaptation and recovery. Diet - protein. Performance-enhancing drugs.
Topic 1.2.5 A healthy, active lifestyle and your skeletal system	Exercise and physical activity and the effects on the skeletal system. Role of skeletal system during physical activity, including ranges of movement at hinge and socket joints. The effects of regular and long-term participation. The importance of weight-bearing exercise. Potential injuries and conditions. Diet.

The following Edexcel website link contains a large number of reference materials as well as past exam papers and their mark schemes;

<http://www.edexcel.com/quals/gcse/gcse09/pe/Pages/default.aspx>

**For further information please contact the Head of Sports Science, Philip Arnold, [parnold@stowe.co.uk](mailto:parnold@stowe.co.uk) or 01280 818161.**

## Revision Timetable

### How do you revise?

Writing yourself a timetable of revision is a good first step.

	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm
MONDAY													
TUESDAY													
WEDNESDAY													
THURSDAY													
FRIDAY													
SATURDAY													
SUNDAY													

**Blank** out the days and times when you have social occasions and you know you won't revise.

**Make** a list of subject priorities – remember, many of your exams are before half term.

**When** do you revise best – is it in the morning or later in the day?

**Write** 'what you will do when' on this planner.

Put it somewhere visible and ask someone to help you stick to it.

## GCSE Exam Timetable

**Pupils have been issued with their individual exam timetable as occasional clashes and changes within the exam day are unavoidable.**

### **Week Beginning 2 May 2016**

2 May	AM/PM	No exams
3 May	PM	English Language Paper 1

### **Week Beginning 16 May 2016**

16 May	AM/PM	No exams
17 May	AM	French Listening & Reading
17 May	PM	Biology Unit 1
19 May	AM	Chemistry Unit 1
20 May	AM	Spanish Listening & Reading
20 May	PM	Physical Education Written Paper

### **Week Beginning 23 May 2016**

23 May	AM	English Literature Poetry & Prose
23 May	PM	Religious Studies Unit 3
24 May	AM	Drama Written Paper
24 May	PM	Geography Unit 1
25 May	AM	Greek Prose
25 May	PM	Physics Unit 1
26 May	AM	Mathematics Non-Calculator
26 May	PM	Latin Language Paper
27 May	AM	English Literature Drama paper

### **Week Beginning 6 June 2016**

6 June	AM	History Paper 1
6 June	PM	Latin Additional Paper
7 June	PM	Religious Studies Unit 4
7 June	PM	Greek Verse Lit
8 June	AM	German Listening & Reading
8 June	AM	Computing Unit 1
8 June	PM	Geography Unit 2
9 June	AM	Mathematics Calculator
9 June	PM	EAL Reading & Writing
10 June	AM	Biology Units 2 & 3
10 June	PM	Music Listening
10 June	PM	Greek Language 1

### **Week Beginning 13 June 2016**

13 June	AM	EAL Listening
13 June	AM	Greek Language 2
14 June	PM	History Paper 2
15 June	PM	Chemistry Units 2 & 3
16 June	AM	Italian Listening & Reading
16 June	AM	Design -RMT Written Paper
17 June	AM	Physics Unit 2 & 3
17 June	PM	Russian Listening & Reading

### **Week Beginning 20 June 2016**

20 June	AM/PM	No exams
21 June	PM	Design - Graphics Written Paper
23 June	AM	Russian Writing

## END OF GCSE SUMMER EXAMS

**Please note that these dates and times should only be used as a guide. Where a Stoic has an Exams Clash, timetable variations will occur in line with JCQ regulations.**

## Notes

## Notes



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