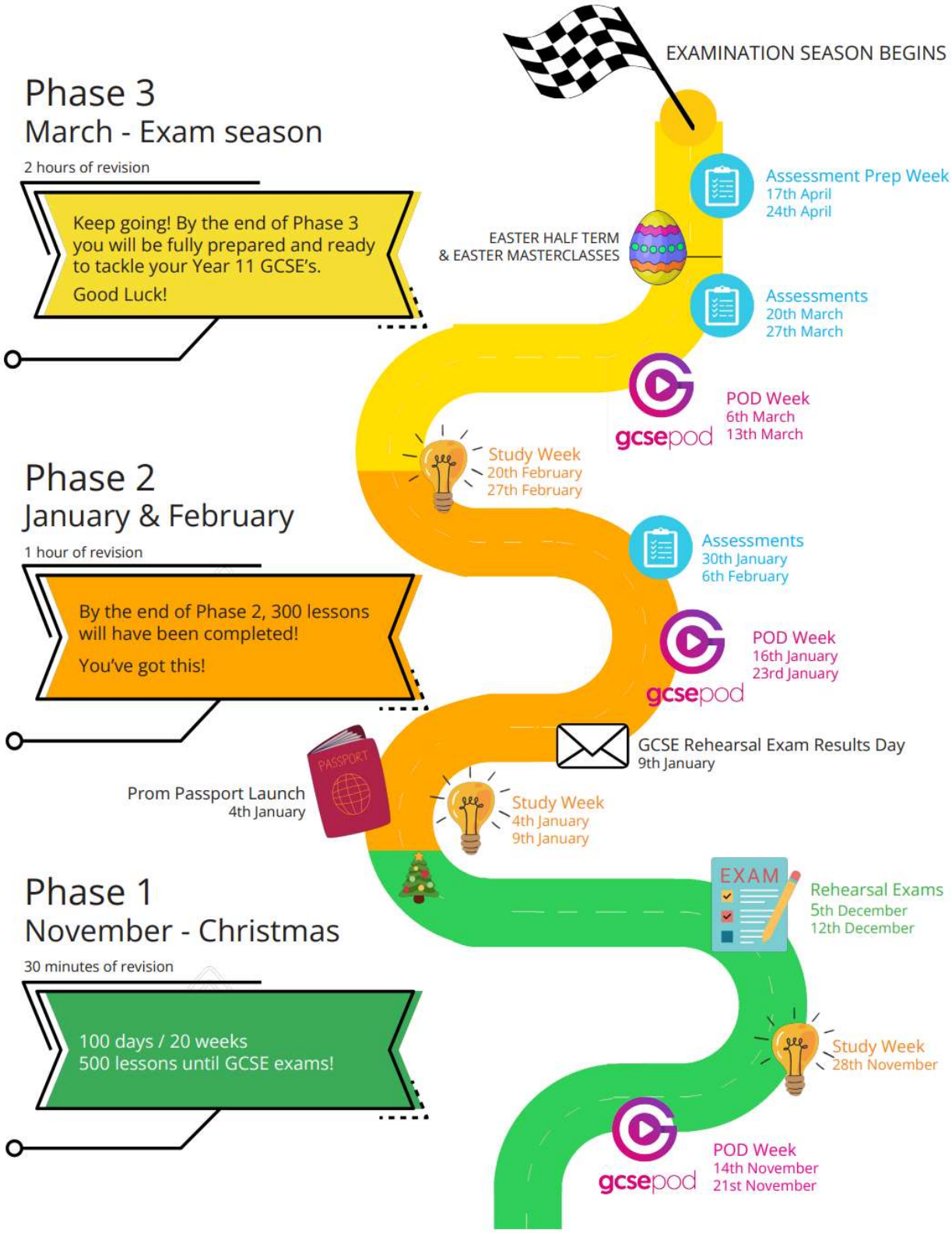
# COWLEY INTERNATIONAL COLLEGE

## Rehearsal Examinations
## December 2022

# COUNT UP TO GCSE'S



# ***Examination Procedures for Students***

All examinations will be held in the Sports Hall or Cowley Hall (6th form site) unless otherwise advised. Make sure you know when and where they are to take place, and where you are sitting - this should be recorded on your Examination Card.

- ☐ *Students should ensure that they have with them any necessary equipment, e.g. calculators, 2 black pens, pencils, rulers etc…*
- ☐ *Mobile phones and other electronic devices (including Smart watches) are not allowed in the examination room under any circumstances. Students found with a mobile phone, or any other type of device, on their person will be subject to the Rules of the Examination Board, which could result in their paper being disqualified.*
- ☐ *Students should make their way to the exam venue and arrive no later than the advertised time. Prior to an afternoon examination, students may be required to have an early lunch. Further details will be provided during morning registration on the day of the examination and be displayed on the corridor screens.*
- ☐ *Seat numbers will be given to you by your Team Tutor, you should write these on your Examination Card. They will also be posted near to the entrance to the examination room and on the Year Team office window. It is the responsibility of the student to know their seat/room number.*
- ☐ *Students who are late may not be allowed to enter the examination room.*
- ☐ *Students should enter and dismiss from the examination room silently and listen carefully to instructions.*
- ☐ *Students should check carefully the paper they are issued to ensure it is the correct examination / tier of entry.*
- ☐ *Any queries should be directed at a member of staff or an invigilator by raising your hand.*
- ☐ *Students should not communicate verbally or non-verbally with any other student when inside the examination venue.*
- ☐ *Students will be dismissed back to normal lessons after the examination has ended.*

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I confirm that I have read and understood the procedures at this Examination Centre for all formal GCSE Examinations.

Signed: _____ Print name: _____

Date: _____

*Notice for Centre – all boxes should be ticked by any person(s) completing an Examination at the Centre.

# Rehearsal Examination Timetable

| Week A | | Periods 1&2 | Periods 3&4 | Period 5 |
|---|---|---|---|---|
| Monday | 5th Dec | English Language (1h 45) | Biology (1h 15)<br>Separates 1h 45 | |
| Tuesday | 6th Dec | Maths (1h 30) | Chemistry (1h 15)<br>Separates 1h 45 | |
| Wednesday | 7th Dec | English Literature (2h) | Physics (1h 15)<br>Separates 1h 45 | PE (1hr)<br>Dance (1hr) |
| Thursday | 8th Dec | Geography (1h 30) | French (1h 45)<br>Higher 2h 15 | Y10 & Y11 Health<br>(45 min) |
| | | History (1h 45) | Mandarin (1h 45)<br>Higher 2h 15<br>Construction (1h) | |
| Friday | 9th Dec | Maths (1h 30) | Computer Science (1h 30)<br>Engineering (1h)<br>Animal Care (1h) | |
| **Y11 - Week B** | | **Periods 1&2** | **Periods 3&4** | **Period 5** |
| Monday | 12th Dec | Art (2h) *classroom | Business (1h 45)<br>Construction (1h) | ***Y11 EXAM CATCH-UP*** |

# Revision Timetable

| | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|---|---|---|---|---|---|---|---|
| 8:30 – 9 am | | | | | | | |
| 9 – 9:30 | | | | | | | |
| 9:30 – 10 | | | | | | | |
| 10 – 10:30 | | | | | | | |
| 10:30 – 11 | | | | | | | |
| 11 – 11:30 | | | | | | | |
| 11:30 – 12 | | | | | | | |
| 12 – 12:30 | | | | | | | |
| 12:30 – 1 | | | | | | | |
| 1 – 1:30 | | | | | | | |
| 1:30 – 2 | | | | | | | |
| 2 – 2:30 | | | | | | | |
| 2:30 – 3 | | | | | | | |
| 3 – 3:30 | | | | | | | |
| 3:30 – 4 | | | | | | | |
| 4 – 4:30 | | | | | | | |
| 4:30 – 5 | | | | | | | |
| 5 – 5:30 | | | | | | | |
| 5:30 – 6 | | | | | | | |
| 6 – 6:30 | | | | | | | |
| 6:30 – 7 | | | | | | | |
| 7 – 7:30 | | | | | | | |
| 7:30 – 8 | | | | | | | |
| 8 – 8:30 | | | | | | | |
| 8:30 – 9 | | | | | | | |
| 9 – 9:30 | | | | | | | |
| 9:30 – 10 pm | | | | | | | |

| Key | |
|---|---|
| | School |
| | Bedtime |
| | Dinner |
| | Relaxation/Socialising time |
| | |
| | |
| | |
| | |

**To complete your revision timetable, remember the following things:**

- Start by blanking out things that don't change often (school/sports commitments etc).
- Set a reasonable bed time – enough to give your brain recuperation time. This is essential for converting short term memories to long term.
- Keep aside a dedicated dinner time – it's important to eat well but also take time to chat with family.
- Block out some relaxation time. You do not want to burn out. *But remember to always prioritise revision*

**Now you're ready to complete your revision slots...**

- Break every subject down into its **component topics**
  E.g. ENGLISH LANGUAGE: Reading; transactional writing; narrative writing
  ENGLISH LITERATURE: A Christmas Carol; An Inspector Calls; Macbeth; unseen poetry.
- Match subjects based on *skills* (revise scientific and mathematical subjects together and essay-based subjects together).
- BE FLEXIBLE. Be prepared to alter & adapt this revision timetable every half term.

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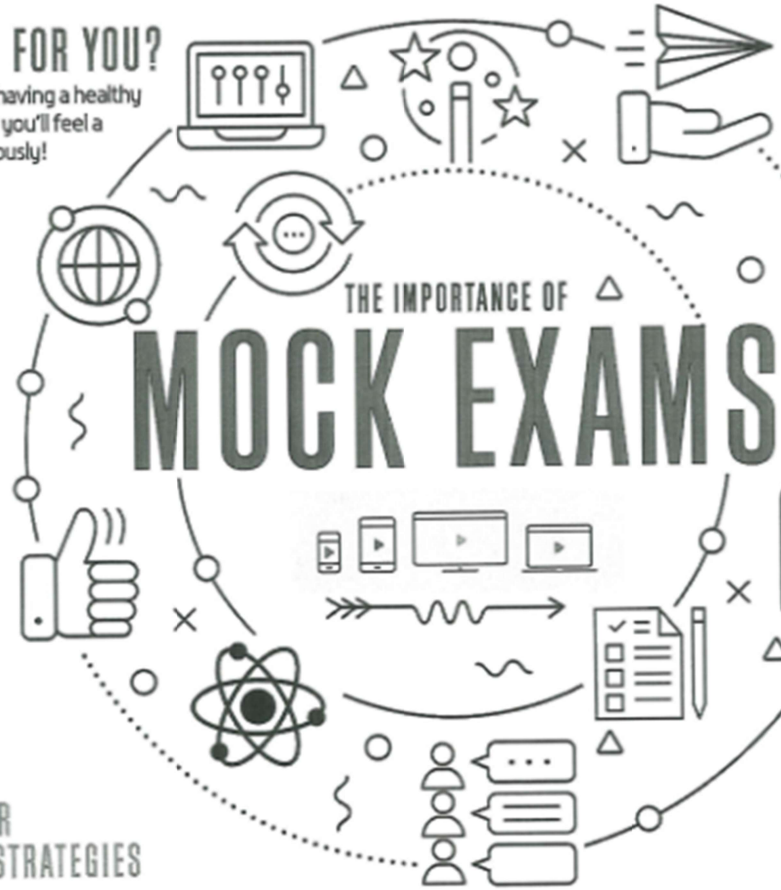
# WHY ARE MOCKS GOOD FOR YOU?

Taking your Mock exams is rather like having a healthy diet or making the effort to exercise - you'll feel a lot better afterwards if you take it seriously! Here's why ....




HELPS YOU GET USED TO EXAM PRESSURE

ALLOWS YOU TO PRACTICE EXAM TECHNIQUES

GIVES YOU EXPERIENCE OF EXAM SETTING

IT'S THE PERFECT OPPORTUNITY TO ASK FOR HELP

EXERCISES YOUR BRAIN TO BUILD EXAM STAMINA

HELPS IDENTIFY TOPICS YOU NEED TO REVISE

TESTS YOUR REVISION STRATEGIES



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# HOW TO DEAL WITH EXAM STRESS

Don't let the stress of exams overwhelm you. Stay in control with these top tips.


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Education on Demand

## BELIEVE IN YOURSELF

If you work hard and stay focused with positive energy, stress will be reduced. Believe in yourself and have the confidence to succeed.

## GET ORGANISED

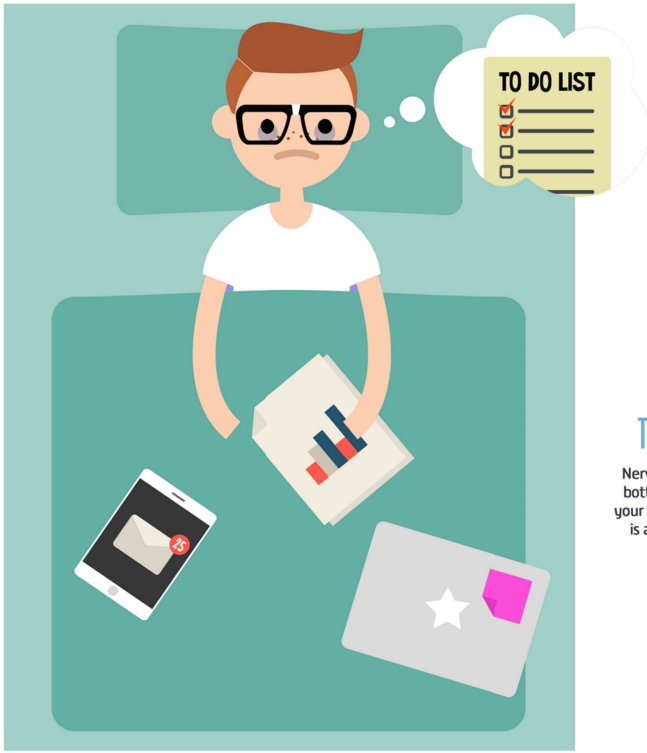
You'll feel more confident and in control if you make a list of everything you need to study and create a schedule.

## MAKE SLEEP A PRIORITY

Without getting the proper rest it will be even harder to retain information. A good sleep of between 7-9 hours every night helps you have a relaxed and well-rested mind and body.

## OVERCOME PROBLEMS

If you find you don't understand some of your material, getting stressed out won't help. Instead, take action to address the problem directly by seeing your teaching or revising on GCSEPod.




## FIT EXERCISE IN EVERYDAY

It's easy to put off exercise but remember a healthy body = a healthy mind. Doing at least 20 minutes of physical activity a day can help to improve focus and keep you relaxed.

## EAT RIGHT

Eat three healthy meals a day and limit your consumption of caffeine and sugars. Power foods for your brain include blueberries, salmon and nuts.

## TALK ABOUT YOUR NERVES

Nervousness is a natural reaction to exams, but bottling it up will only make it worse. Talking to your friends and family about how you are feeling is a great way of alleviating stress and worry.

## KEEP THINGS IN PERSPECTIVE

The exams might seem like the most crucial thing right now, but in the grander scheme of your whole life they are only a small part. Just concentrate on the actual exam in hand not what may or may not happen after.

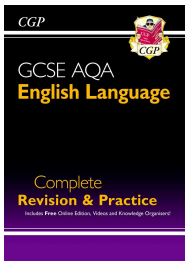
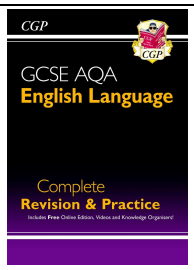
# ENGLISH LANGUAGE Paper 2 (AQA)

## *Writers' Viewpoints and Perspectives*

EQUIPMENT REQUIRED

- 2 black pens
- Highlighters
- Ruler

Date of Examination: **Monday, 5th December 2022**
Length of paper: **1 hour 45 mins**

| Topic | Details | Revision guide reference | Pod Playlist Title |
|---|---|---|---|
| SECTION A Reading Non-Fiction<br><br>Two fiction texts: one from the 21st century and one from either the 19th or 20th Century **ABOUT THE SAME TOPIC**. | About 1 hour.<br>Q1 – 5 mins (list 4 things)<br>Q2 – 12 mins (language)<br>Q3 – 12 mins (structure)<br>Q4 – 25 mins (response to statement)<br><br>In Q1, Q2 and Q4, you will be directed to look at certain lines – it is imperative you only answer on the lines mentioned.<br><br>Think carefully about writers' craft. |  <br>All pages referring to **PAPER 2 Section A: <u>Reading</u>**<br>**p6+7**<br>**p20-33, p36-41**<br>**p42-55**<br>**p104-114** | English Language<br>↳ **Reading Non-Fiction & Transactional Writing**<br>↳ *Reading Non-Fiction*<br>↳ All pods<br>---<br>English Language<br>↳ **Reading & Writing Skills**<br>↳ All 9 pods |
| SECTION B Writing Non-Fiction<br><br>One transactional writing task to complete | About 45 mins.<br>ONE non-fiction writing task to complete.<br>You will be given a statement to which you must respond.<br>- Plan your response carefully using the Q5 plan you've learnt in class: Remember ETHOS/PATHOS/LOGOS<br>- Be engaging, original + ambitious with vocabulary<br>- Always PROOF READ to check |  <br>All pages referring to **PAPER 2 Section B: <u>Writing</u>**<br>**p8**<br>**p70-72, 80-91**<br>**p116** | English Language<br>↳ **Reading Non-Fiction & Transactional Writing**<br>↳ *Transactional Writing*<br>↳ All pods<br>---<br>English Language<br>↳ **Spelling, Punctuation and Grammar**<br>↳ All 8 pods |

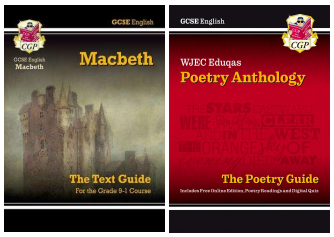
50% of your English Language GCSE

# ENGLISH LITERATURE Component 1 (Eduqas)

EQUIPMENT REQUIRED

- 2 black pens
- Highlighters

Date of Examination: **Wednesday, 7th December 2022**
Length of paper: **2 hours**

| Topic | Details | Pod Playlist Title | Other Revision Resources |
|---|---|---|---|
| MACBETH<br><br>1 hour | Be prepared to answer on:<br>**Key themes, mainly**:<br>• Ambition and Kingship<br><br>**Major characters**<br>• Macbeth, Lady Macbeth, Banquo | • Macbeth Characters<br><br>• Macbeth Themes | CGP revision guides for Macbeth & Poetry<br>  |
| ANTHOLOGY POETRY<br><br>1 hour | Revise:<br>**Nature and War poems** in your anthology<br>Poetic devices & terminology<br>The 7 questions | • Nature Poetry<br>• War Poetry | Your class' MS Team page<br><br>BBC Bitesize |

**Remember:**

Macbeth Paper – 1 hour, 40 marks in total split into two sections:
a) extract question /15 (20-25mins)
b) essay question /20+5 (35-40mins)

Poetry Paper – 1 hour, 40 marks in total split into two sections:
a) analysis of given poem /15
b) comparison of given poem with another of your choice /25

# MATHS
# Higher Paper

EQUIPMENT REQUIRED

- Pen Pencil Ruler
- Scientific Calculator

Date of Examination: **Tuesday, 6th & Friday, 9th December 2020**

Length of paper: **1 ½ hours**

| Topic | Location of Pods |
|---|---|
| Angles in Polygons | Geometry & Measure |
| Density Problem | Geometry & Measure |
| Trigonometry | Geometry & Measure |
| Area of Circle Problem | Geometry & Measure |
| Box Plots | Statistics |
| Compound Interest Problem | Ratio and Proportion |
| Combinations | Probability |
| Ratio Problem | Ratio and Proportion |
| Graphical Inequalities | Algebra |
| Algebraic Fractions | Algebra |
| Rearranging Formula | Algebra |
| Area of a Triangle | Geometry & Measure |
| Iteration | Ratio and Proportion |

**Notes:**
**There will be a walking talking mock before the 1st mock exam.**
**All the topics above are taken from the 2nd mock .**

# MATHS
# Foundation Paper

EQUIPMENT REQUIRED

- Pen Pencil Ruler
- Scientific Calculator

Date of Examination: **Tuesday, 6th & Friday, 9th December 2020**

Length of paper: **1 ½ hours**

| Topic | Location of Pods |
|---|---|
| Money Problem | Number |
| Time Problem | Number |
| Substitution | Algebra |
| Ratio Problem | Ratio & Proportion |
| Rearranging Formula | Algebra |
| Volume & Surface Area | Geometry & Measure |
| Algebra in Angles Problem | Geometry & Measure |
| Currency Problem | Number |
| Venn Diagrams & Notation | Probability |
| Simultaneous Equations | Algebra |
| Median and Probability | Statistics |
| Fractions, Percentages & Ratio | Ratio & Proportion |
| Angles in Polygons | Geometry & Measure |
| Density Problem | Ratio & Proportion |

**Notes:**
**There will be a walking talking mock before the 1st mock exam.**
**All the topics above are taken from the 2nd mock .**

# Separates **BIOLOGY**

# Higher Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Monday, 5th December 2022**

| Topic | Details | Revision guide reference |
|---|---|---|
| Cells | Structure of Plant and Animal Cells | P1-2 |
| Microscopy | M = I*A and use of correct units<br>Electron and light microscopes | P5 |
| Pathogens | Defence against diseases - non specific | P84 |
| Photosynthesis | Required practical and limiting factors | P118 - |
| Transpiration | Definition and factors affecting it | P61 |
| Heart and Transplant Evaluation | Importance of valves and double circulation | P35 |
| Glucose Control | tests for glucose, how glucose conc in blood affects water potential in cells | P37 – Food tests |
| Exchange / stem cells | Small Intestines- methods of exchange | p12-13 / p25 |
| Drug Trials | Stages of and use of monoclonal antibodies | P85 |
| Importance of enzymes in digestion | Products of digestion | P47 |

**Included in the paper is checking on the validity of results- being able to draw a graph from given data and interpret information from tables.**

# Separates **BIOLOGY**

# Foundation Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Monday, 5th December 2022**

| Topic | Details | "Oxford revise" revision guide |
|---|---|---|
| Organisation in Animals | Digestion, enzymes, food tests<br>Human gas exchange, circulatory system, the heart, valves, blood vessels | B4 |
| Cell Transport | Diffusion, Osmosis & Active transport | B2 |
| Cell Division | Mitosis, stem cells & differentiation | B3 |
| Organisation in Plants | Structure of a leaf, transport vessels, factors affecting transpiration | B6 |
| Respiration | Anaerobic respiration in yeast<br>Identifying variables in an investigation<br>Taking measurements from scientific equipment | B12 |
| Communicable Disease | Antibiotics, stopping the spread of disease<br>Microbiology required practical on antibiotics<br>Calculation of a mean<br>Malaria<br>How the body prevents disease | B7<br>B8 |
| Non-communicable disease | Treating cardiovascular disease, comparing replacement valves | B10 |
| Cell Biology | Comparing light & electron microscopes, drawing/labelling an animal cell, function of organelles, comparing plant & animal cells, calculating magnification | B1 |
| Photosynthesis | Required practical for photosynthesis<br>Identifying variables<br>Drawing a graph | B11 |

**Included in the paper is calculating a mean average, control variables, independent variables, drawing a graph and a line of best fit**

# Trilogy **BIOLOGY**

# Higher Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Monday, 5th December 2022**

| Topic | Details | "Oxford revise" revision guide reference |
|---|---|---|
| Cells and cell transport | Cell transport – Diffusion, Osmosis, Active transport<br>Adaptations for exchanging substances<br>Eukaryotes and Prokaryotes | Page 12 and 13<br><br>Page P13<br>Page 2 |
| Heart | Labelling the heart | Page 33 |
| Disease | Origins or penicillin, aspirin and digitalis<br>Malaria | Page 73<br>Page 63 |
| Effect of exercise | Respiration rate<br>Breathing rate | Pages 102 and 103 |
| Digestion | Amylase, protease and lipase; their substrates and products<br>Food tests | Page 43<br><br>Page 35 |
| Plants | Transpiration<br>Rate of transpiration<br><br>Photosynthesis | Page 52 and 53<br>Page 55 worked example<br>Page 92 |
| Microscopes | Correct use of the microscope<br>Magnification | Page<br>Pages 2 and 5 |

- **Included in the paper is:**
- **resolution (Page 5),**
- **plotting a graph and drawing a suitable curve of best fit (Page 58 Q3.3 practice question, P16 Q1.4 practice question)),**
- **predicting how a curve of best fit might change when different variables change,**
- **calculating the surface area of a cube (P105 worked example)**

# Trilogy **BIOLOGY**

# Foundation Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Monday, 5th December 2022**

| Topic | Details | "Oxford revise" revision guide reference |
|---|---|---|
| Photosynthesis | Required practical for Photosynthesis<br>Photosynthesis word equation<br>Limiting factors | Pages 92 -95 |
| Cell transport | Diffusion<br>Osmosis<br>Adaptations for exchange substances. | Pages 12- 13<br>Pages 12- 13<br>Pages 13, 32 |
| Organisation in plants | Plant tissues<br>Stomata | Page 32<br>Page 52 |
| Organisation in animals | The Heart<br>Circulatory system<br>The digestive system | Page 33 |
| Cell structure | Organelles<br>Specialised cells<br>Microscopes | Page 2<br>Page 3<br>Pages2,5 |
| Spread of disease | Virus, Bacteria, Fungi, Protists<br>Vaccines | Pages 62- 63 |
| Enzymes | Digestive enzymes<br>Food tests | Page 43 |
| Respiration | Effects of exercise | Page 93 |

**Included in the paper is calculating surface area, Magnification equation and variables.**

# Separates **CHEMISTRY**

# Higher Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Tuesday, 6th December 2022**

| Topic | Details | "Oxford revise" revision guide reference |
|---|---|---|
| Atomic Structure | Structure of the atom, masses and charges.<br>Mass number, Atomic number .<br>Isotopes.<br>History of the atom<br>Rutherford's experiment | |
| Development of the periodic table. | Mendelev | |
| Bonding, structure and properties | Covalent,<br>Metallic,<br>Ionic<br>Allotropes of Carbon including nanotubes and nanoparticles.<br>Dot cross diagrams | |
| Reactions of acids | | |
| Reactivity of metals | | |
| Quantitative Chemistry | Mr<br>Moles,<br>Concentration,<br>Volume of gas<br>Reacting masses.<br>Titration | |
| Energy Changes | Endo/Exothermic reactions, energy profiles,<br>Including calcs.<br>Required Practical | |
| Electrochemical cells and Fuel cells | | |
| Electrolysis | Molten<br>Aqueous Solutions – Required Practical | |
| **Included in the paper is standard form, naming physics and writing a method, re-arranging equations, reading graphs, reading information from tables, understanding variables in an investigation, sources of random/systematic errors, accuracy, precision, resolution** | | |

# Trilogy **CHEMISTRY**

# Higher Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Tuesday, 6th December 2022**

| Topic | Details | "Oxford revise" revision guide reference |
|---|---|---|
| Quantitative Chemistry | Concentration = mass/volume | Revision 224-225, Questions 228-233 |
| | Mr and percentage by mass | |
| | Avogadro's constant *(knowledge of using balanced equations, limiting reactants and reacting masses are NOT required)* | |
| Variables | Control, dependent and independent | |
| Chemical Reactions | Reactivity series | Revision 234, Questions 238-243 |
| | pH scale and universal indicator *(knowledge of strong and weak acids, the making salts required practical and neutralisation reactions is NOT required)* | Revision 244, Questions 248-253 |
| | State symbols | Revision 224 |
| Energy changes | Required practical-investigating temperature changes | Revision 267 |
| | Reaction profiles | Revision 264, Questions 268-273 |
| | Bond Energy calculations | Revision 265, Questions 268-273 |
| Structure and Bonding | Simple covalent bonding- including dot and cross diagrams and explanation of properties *(knowledge of giant covalent structures and fullerenes is NOT required)* | Revision 194, Questions 198-203 |
| | Ionic bonding – including explanation of properties *(knowledge of metallic structure is NOT required)* | Revision 204, Questions 208-213 |
| Periodic Table | History of the periodic table | Revision 214-215, Questions 218-223 |
| | Trends in reactivity and boiling point of group 1, 7 and 0 | |
| | Observations of group 1 and group 7 reactions | |
| Electrolysis | Electrolysis of aluminum oxide | Revision 254-255, Questions 258-263 |
| | Half Equations | |
| ~~Maths Skills~~ | Reading a graph | Revision 217, 287 |
| | Calculating gradient of a line | |

# Trilogy **CHEMISTRY**

# Foundation Paper

You will need, pen, pencil, ruler, calculator

Date of examination: **Tuesday, 6th December**

| Topic | Details | "Oxford revise" revision guide reference |
|---|---|---|
| Energy Changes | Exothermic & Endothermic Reactions<br>Reaction Profiles<br>Required practical-investigating temperature changes | Revision 180-181, 258-259<br>Questions 184-189, 262-267 |
| Electrolysis | Electrolysis of copper chloride | Revision 240-241<br>Questions 244-249 |
| Chemical Changes | Salts & Acids<br>Universal Indicator<br>Balancing equations<br>Required practical – Making salts | Revision 230-231<br>Questions 234-239 |
| Periodic Table | History of the periodic table<br>Trends in reactivity and boiling point of group 1, 7 and 0 | Revision 210-211<br>Questions 214-219 |
| Atomic Structure& Bonding | Structure of the atom, masses, and charges - Ions<br>Mass number & Atomic number<br>Dot & Cross diagrams<br>Covalent bonding | Revision 180-181, 190-191<br>Questions 184-189, 194-199 |
| Quantitative Chemistry | Calculating mass<br>Concentration = mass/volume<br>Mr and percentage by mass | Revision 220-221<br>Questions 224-229 |
| Chemical Reactions | Reactivity series<br>State symbols | Revision 250-251, 230-231<br>Questions 252-257, 234-239 |
| Variables | Control, Dependent & Independent | |
| Math Skills | Taking readings from scientific apparatus<br>Reading a graph<br>Calculating gradient of a line<br>Percentages | |

Variables Control, Dependent & Independent
Math Skills Taking readings from scientific apparatus, reading a graph, Calculating gradient of a line, Percentages

# Separates **PHYSICS**

# Higher Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Wednesday, 7th December 2022**

| Topic | Details | "Oxford revise" revision guide reference |
|---|---|---|
| Energy | Understanding efficiency including efficiency equation<br>Kinetic and gravitational potential energy including equations ($E_k = 0.5mv^2$, $E_p=mgh$)<br>Thermal conductivity<br>Specific heat capacity and specific latent heat (including using equations) | P1-13<br><br><br>P14-25 |
| Electricity | Power including $P=VI$, $P=I^2R$, $P=E/t$<br>Mains electricity – frequency, voltage<br>Series and parallel circuits<br>Electrostatic force (static electricity)<br>Equations $E = QV$, $V= IR$, $I = Q/t$ | P48-59 |
| Atomic Structure | Completing radioactive decay equations<br>Properties/dangers of nuclear radiation (alpha, beta, gamma)<br>Half-life problems | P72-95 |
| Particle Model | Density including using equation density = mass/volume<br>Calculating the volume of a cube<br>Internal energy<br>Using the particle model to describe different states of matter | P60-71 |

**Included in the paper is standard form, naming physics and writing a method, re-arranging equations, reading graphs, reading information from tables, understanding variables in an investigation, sources of random/systematic errors, accuracy, precision, resolution**

# Separates **PHYSICS**

# Foundation Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Wednesday, 7th December 2022**

| Topic | Details | "Oxford revise" revision guide |
|---|---|---|
| Particle model | Using the particle model to describe different states of matter<br>Using temperature/ time graphs to describe changes of state<br>Density including use of equation: density = mass/volume | |
| Energy | Using GPE equation: gravitational potential energy = mass × gravitational field strength × height<br>Factors that affect the amount of kinetic energy stored in an object<br>Using specific latent heat equations: thermal energy for a change of state = mass × specific latent heat<br>Non-renewable and renewable energy resources (advantages and disadvantages)<br>RECALL of power equation (Energy = power x time) | |
| Atomic Structure | Discovery of the atom<br>Rutherford's experiment<br>Properties of alpha, beta and gamma radiation<br>Decay equations (alpha, beta and gamma)<br>Ionisation | |
| Electricity | Circuit symbols<br>Series and parallel circuits (current, potential difference, resistance)<br>Use of charge = current x time, energy = charge x potential difference, | |
| Required practical Insulation | Why do insulate objects?, resolution of thermometer, use of specific heat capacity equation (equation given on AQA Physics equation sheet) | |

**Included in the paper is extrapolation of graphs, choosing equipment to accurately take measurements, reproducible and repeatable data, calculating percentages, resolution,**

# Trilogy **PHYSICS**

# Higher Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Wednesday, 7th December 2022**

| Topic | Details | "Oxford revise" revision guide ref |
|---|---|---|
| Electricity | Resistance in circuits<br>Ammeters and voltmeters in circuits<br>Relationship between current and potential difference of a resistor<br>Current, potential difference and resistance equation<br>Resistance in cables<br>Resistance in parallel circuits<br>Circuit symbols<br>Thermistors<br>Parallel circuits<br>Power, current and potential difference equation<br>AC and DC | 366-367<br><br><br><br><br><br><br><br>357<br><br>356 |
| Molecules and matter | Gas pressure<br>Specific latent heat<br>States of matter and changes of state<br>Changes in particle arrangements during changes of state | 376-377 |
| Energy resources | Non-renewable resources meaning | 346 |
| Energy | Energy dissipation<br>Specific heat capacity | 337 |
| Radiation | Changes in the nucleus for gamma emission<br>Properties of gamma<br>Risks of radiation<br>Nuclear equations<br>Half life | 396-397 |
| HSW | Significant figures<br>Linear relationships<br>Control variables | |

# Trilogy **PHYSICS**

# Foundation Paper

You will need; pen, pencil, ruler, calculator

Date of Examination: **Wednesday, 7th December 2022**
POD Playlist: https://members.gcsepod.com/pupils/assignments/assignment/1037341

| Topic | Details | "Oxford revise" revision guide ref |
|---|---|---|
| Circuits | - Diagrams of components<br>- Power equations<br>- Charge equation<br>- Resistance<br>- Wiring ammeters and voltmeters<br>- Variable resistors<br>- Calculating resistance | 347<br>337 / 318<br>337<br>347<br>347<br>347<br>347 |
| Experiments | - variables<br>- Errors (random ,zero, measurement)<br>- anomalous definition<br>- calculating a mean | Use GCSE POD video "Scientific Method" |
| Energy | - efficiency<br>- energy equations<br>- renewable and non-renewable energy | 319<br>319<br>326/27 |
| Radiation | - Rutherford's experiment<br>- What happens when atoms absorb or emit electromagnetic radiation | 366 |
| Radioactive isotopes | - Count rate<br>- Half life<br>- Drawing lines of best fit<br>- Blocking alpha, beta and gamma | 376/77 |
| Electrical safety & energy transfers | - Wiring plugs<br>- Energy equations<br>- Energy transfers in a toaster | 336 |
| Energy | - Gravitation potential energy and equation | 318 |
| Thermal energy | - specific latent heat<br>- states of matter and particle arrangements | 356/57 |

EQUIPMENT REQUIRED

- Black pen
- Spare pen

# HISTORY

Date of Examination: **Thursday, 8th December 2022**

Length of paper: **1hour 45 mins**

| Topic | Details | Revision guide reference | Pod Playlist Titles |
|---|---|---|---|
| Elizabethan England | You will sit a full Elizabethan paper. Topic to revise include- Government, problems inherited, Religious settlement and reactions to it, Mary, Queen of Scots, Northern Rebellion, Society and Exploration. | Use old exercise book in place of revision guide | Elizabethan England Edexcel |
| Crime and Punishment | Topics include time period Medieval 1000-1500, Early Modern 1500-1700, 18th and 19th Century and Modern Britain 1900 to present. The assessment will also contain questions on the Whitechapel historical environment. | PP: All | Crime and Punishment through time Edexcel |

**Notes**
Revise all units covered above. Try to make as much use of GCSE Pod as possible as it breaks down the units mentioned above until smaller chunks. If anyone needs any further support, please speak to your class teacher.

EQUIPMENT REQUIRED

- Black pen
- Pencil
- Ruler
- Calculator

# GEOGRAPHY

Date of Examination: **Thursday, 8th December 2022**

Length of paper: **1hour 30 mins**

| Topic | Details | Revision guide reference | Pod Playlist Title |
|---|---|---|---|
| The challenge of natural hazards | Extreme weather<br>Tropical storms<br>Tectonic hazards | P. 29<br>P. 25-28<br>P. 18-23 | Geography December mock examination |
| The living world | Tropical rainforests<br>Cold environments<br>Global ecosystems | P. 42-46<br>P. 53-56<br>P. 41 | |
| Physical landscapes of the UK | Coastal landscapes<br>Glacial landscapes | P. 62-67<br>P.80-85 | |

**Notes**
Revision for all topics is required, not just those listed above. Questions worth 6 or more marks require you to bring in **all** of your geographical knowledge. The Pods and revision guides may have different examples/case studies to the ones we have taught you – please try to keep to the examples you have studied in class, though other examples will be marked.
**DO NOT answer the question on rivers.**

# FRENCH Higher

## Listening/Reading/Writing/Speaking

**Date of Examinations:**

- **Listening – in class week beginning 21st November**
- **Speaking – week beginning 28th November**
- **Reading/Writing – Thursday, 8th December (2 hours 15 mins)**

| Topic | Details | Revision reference | Pod Playlist Title |
|---|---|---|---|
| **Writing Examination** | | | |
| school topic OR celebrations topic | Complete **one** 90 word writing piece | Refer to Knowledge Organisers and assessment revision booklets | *https://members.gcsepod.com/shared/playlists/playlist/264944* |
| technology topic OR holidays topic | Complete **one** 150 word writing piece | Refer to Knowledge Organisers and assessment revision booklets | *https://members.gcsepod.com/shared/playlists/playlist/264947/72863* |
| **Speaking Examination** | | | |
| THEME 1, 2 or 3 (excluding jobs/future plans topic) | YOU WILL COMPLETE:<br>A ROLEPLAY<br>A PHOTO CARD<br>CONVERSATION<br>IN FRENCH | Speaking test notes as provided by your teacher | |

**Theme 1** covers family, friends, marriage, technology, free-time, healthy eating, eating out, sport
**Theme 2** covers house, town, local area, healthy living, the environment and holidays
**Theme 3** covers school subjects, life at school
**Note: Your classwork notes are the most relevant resource for all aspects of the assessment.**

# FRENCH Foundation

## Listening/Reading/Writing/Speaking

**Date of Examinations:**

- **Listening – in class week beginning 21st November**
- **Speaking – week beginning 28th November**
- **Reading/Writing – Thursday, 8th December (1 hour 45 mins)**

| Topic | Details | Revision reference | Pod Playlist Title |
|---|---|---|---|
| **Writing Examination** | | | |
| health topic | Complete 40 word writing piece (10 words per bullet point) | Refer to Knowledge Organisers and assessment revision booklets | *https://members.gcsepod.com/shared/playlists/playlist/264944* |
| school topic OR celebrations topic | Complete **one** 90 word writing piece (22/24 words per bullet point) | Refer to Knowledge Organisers and assessment revision booklets | *https://members.gcsepod.com/shared/playlists/playlist/264947/72863* |
| **Speaking Examination** | | | |
| THEME 1, 2 or 3 (excluding jobs/future plans topic) | YOU WILL COMPLETE:<br>A ROLEPLAY<br>A PHOTO CARD<br>CONVERSATION<br>IN FRENCH | Speaking test notes as provided by your teacher | |

**Theme 1** covers family, friends, marriage, technology, free-time, healthy eating, eating out, sport
**Theme 2** covers house, town, local area, healthy living, the environment and holidays
**Theme 3** covers school subjects, life at school
**Note: Your classwork notes are the most relevant resource for all aspects of the assessment.**

# Construction

EQUIPMENT REQUIRED

- Pen
- Pencil
- Eraser
- Ruler
- Mathematical equipment inc Calculator

Date of Examination: **Monday, 12th December**
Length of paper: **1hr and 1hr**

| Topic and Details | Topic and Details |
|---|---|
| **Responsibilities**<br>□ Of employees<br>□ Of employers<br><br>**Safety signs**<br>□ Meanings of colour coding<br>□ Meanings of sign shapes<br>□ Meanings of signs<br>Such as<br>o Naked flames prohibited<br>o Pedestrians prohibited<br>o Head protection must be worn<br>o Foot protection must be worn<br>o Risk of fire<br>o Risk of danger<br><br>**Fire extinguishers**<br>Water / Foam / CO2 / Dry powder<br><br>**Vaporising liquids**<br>Wet chemical / Fire blanket<br>Describe potential **effects** of hazards in different situations<br><br>**Effects**<br>□ Physical<br>□ Psychological<br>□ Financial<br>□ Environmental<br><br>**Who is affected**<br>□ Self<br>□ Others working in the area<br>□ Employer<br>□ Local community<br>□ Environment<br>□ Users | **Describe activities of those involved in construction projects**<br>Those involved -<br>• client's team (client, architect, engineer, quantity surveyor, project manager, designer)<br>• contractor's team (builder/site engineer, site supervisor, safety officer, tradespersons, specialist sub-contractors)<br>• statutory personnel (building inspector, town planner, public health inspector)<br>• general (administrator, finance officer, public liaison officer, purchasing/procurement officer, catering, security)<br>**Construction projects**<br>• refurbishments<br>• extensions<br><br>**Describe responsibilities of those involved in construction projects**<br><br>**Describe outputs of those involved in realising construction projects**<br><br>**Describe processes used in built environment development projects**<br>Processes<br>• planning (design, project planning, procurement)<br>• construction (secure site, site clearance, substructure, superstructure)<br>• handover to client (commissioning, handover)<br>• maintenance |

**Control measures**
- Method statements
- Safe systems of work
- Work permits
- Competent persons
- PPE

**Security**
- Of tools and equipment
- Personal belongings
- Sensitive information

**Legislation**
- Health and Safety at Work Act 1974
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)
- Control of Substances Hazardous to Health Regulations 2002 (COSHH)
- Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Manual Handling Operations Regulations 1992
- Personal Protective Equipment at Work Regulations 1992 (PPER)
- Working at Heights Regulations 2005
- Asbestos

**Role of HSE**
- when in breach of legislation
- providing support and advice

**Situations**
- on-site – substructure, superstructure
- off-site – workshop, office, travelling between sites

**Calculate resources to meet requirements for built environment development projects**

**Calculate**
- area
- volume
- percentages
- scaling
- best value
- Tolerances
- VAT
- tender price

**Resources**
- plant
- labour
- materials

**Assess potential effect of factors on project success**

Factors -
- internal e.g. lack of qualified and certified key personnel, sourcing of finance, security
- external e.g. penalty clauses, weather conditions

**Interpret sources of information Sources of information**
- drawings
- catalogues
- spreadsheets
- suppliers material lists
- specifications

**Sequence processes to be followed**

Processes
- planning
- construction
- handover

**Set project tolerances**
- time
- cost

**Notes**

Answer every question and in as much detail as possible

# Engineering

EQUIPMENT REQUIRED

- Pen
- Pencil
- Eraser
- Ruler
- Mathematical equipment inc Calculator

Date of Examination: **Friday, 9th December** Length of paper: **1hr**

| Topic | Details |
|---|---|
| Environmental Issues | Environmental issues affecting engineering applications |
| Describe the properties required of materials for engineering products | Engineering products -<br>Structural, e.g. buildings, bridges<br>Mechanical, e.g. gearbox, crane, bicycle<br>Electronic, e.g. mobile phone, communications, alarm<br><br>Tensile strength / Hardness / Toughness / Malleability / Ductility<br>Electrical Conductivity / Corrosive resistance / Environmental degradation / Elasticity |
| How materials are tested for properties | Destructive tests<br>Non-destructive tests |
| Selecting materials for a purpose | Ferrous / Non-ferrous /Thermoplastics / Thermosetting plastics<br>Smart / Composite |
| Describing engineering processes | Marking out metal / Cutting metal / Finishing metal<br>Preparing metal / Shaping metal / Drilling metal / Turning metal<br>Brazing and Welding metal<br>Joining metal – permanent and temporary fixings<br>Filing metal / Soldering metal |
| Describing applications of engineering processes | For material removal<br>For shaping and manipulation<br>For joining and assembly<br>For heat and chemical treatment |
| Use mathematical techniques for solving engineering problems | Use of formulae / Ohms law / Efficiency / Areas and volumes of geometric shapes / Calculation / Measuring / Estimation<br>Mean / Units of measurement : Metric, Metres, millimetres<br>Pounds, pence |
| Convert between isometric sketches and 3rd angle orthographic projections | Section views<br>Construction lines<br>Centre lines<br>Hidden detail<br>Standard conventions |

**Notes**

Answer every question and in as much detail as possible

# Computer Science

EQUIPMENT REQUIRED
- Black Pen
- Ruler

GCSE Pod Playlist Title: Computer Science

Date of Examinations: Combined Paper 1&2 **Friday 9th December** Length of paper: 90 minutes

| Topic | Details | Topic | Details |
|---|---|---|---|
| **Systems architecture (Paper 1)** | • the purpose of the CPU<br>• Von Neumann architecture:<br>- MAR (Memory Address Register) / MDR (Memory Data Register) / - Program Counter / Accumulator<br>• common CPU components and their function:<br>- ALU (Arithmetic Logic Unit) / CU (Control Unit) / Cache<br>• the function of the CPU as fetch and execute instructions stored in memory<br>• how common characteristics of CPUs affect their performance:<br>- clock speed / cache size / number of cores<br>• embedded systems:<br>- purpose of embedded systems / - examples of embedded systems | **Network security (Paper 1)** | • forms of attack<br>• threats posed to networks:<br>- malware / phishing / people as the 'weak point' in secure systems (social engineering)<br>- brute force attacks / - denial of service attacks<br>- data interception and theft / - the concept of SQL injection / - poor network policy<br>• identifying and preventing vulnerabilities:<br>- penetration testing / - network forensics<br>- network policies / - anti-malware software<br>- firewalls / - user access levels<br>- passwords / - encryption |
| **Memory (Paper 1)** | • the difference between RAM and ROM<br>• the purpose of ROM in a computer system<br>• the purpose of RAM in a computer system<br>• the need for virtual memory<br>• flash memory | **Storage (Paper 1)** | • the need for secondary storage<br>• data capacity and calculation of data capacity requirements<br>• common types of storage:<br>- optical, magnetic, solid state<br>• suitable storage devices and storage media for a given application, and the advantages and disadvantages of these, using characteristics:<br>- capacity / - speed / - portability / - durability<br>- reliability / - cost |
| **Ethical, legal, cultural and environmental concerns (Paper 1)** | • how to investigate and discuss Computer Science technologies while considering:<br>- ethical issues / legal issues / cultural issues / environmental issues / privacy issues<br>• how key stakeholders are affected by technologies<br>• environmental impact of Computer Science<br>• cultural implications of Computer Science<br>• open-source vs proprietary software<br>• legislation relevant to Computer Science:<br>The Data Protection Act 1998 / Computer Misuse Act 1990<br>Copyright Designs and Patents Act 1988 / Creative Commons Licensing / Freedom of Information Act 2000 | **Programming, Logic, Data Representation (Paper 2)** | • why data is represented in systems in binary form<br>• simple logic diagrams using the operations AND, OR, NOT<br>• truth tables<br>• combining Boolean operators using AND, OR and NOT to two levels<br>• applying logical operators in appropriate truth tables to solve problems<br>• applying computing-related mathematics: + – / *<br>- Exponentiation (^) / MOD / DIV<br>Translators and facilities of languages: |
| **Algorithms: (Paper 2)** | • computational thinking:<br>- abstraction / decomposition / algorithmic thinking<br>• standard searching algorithms: binary search / linear search<br>• standard sorting algorithms: | | |

| | | | |
|---|---|---|---|
| | - bubble sort / - merge sort / - insertion sort<br>• how to produce algorithms using:<br>- pseudocode / - using flow diagrams<br>• interpret, correct or complete algorithms<br>Programming techniques:<br>• the use of variables, constants, operators, inputs, outputs and assignments<br>• the use of the three basic programming constructs used to control the flow of a program: - sequence, - selection, - iteration (count and condition-controlled loops)<br>• the use of basic string manipulation<br>• the use of basic file handling operations:<br>- open / - read / - write / - close<br>• the use of records to store data<br>• the use of SQL to search for data<br>• the use of arrays (or equivalent) when solving problems, including both one- and two-dimensional arrays<br>• how to use sub programs (functions and procedures) to produce structured code<br>• the use of data types:<br>- integer / - real / - Boolean / - character and string / - casting<br>• the common arithmetic operators<br>• the common Boolean operators<br>Producing robust programs:<br>• defensive design considerations:<br>- input sanitisation/validation<br>- planning for contingencies<br>- anticipating misuse<br>- authentication<br>• maintainability:<br>- comments<br>- indentation<br>• the purpose of testing<br>• types of testing:<br>- iterative<br>- final/terminal<br>• how to identify syntax and logic errors<br>• selecting and using suitable test data | | • characteristics and purpose of different levels of programming language, including low level languages<br>• the purpose of translators<br>• the characteristics of an assembler, a compiler and an interpreter<br>• common tools and facilities available in an integrated development environment (IDE):<br>- editors / - error diagnostics / - run-time environment<br>- translators<br>Data representation:<br>Units: bit, nibble, byte, kilobyte, megabyte, gigabyte, terabyte, petabyte<br>• how data needs to be converted into a binary format to be processed by a computer.<br>Numbers<br>• how to convert positive denary whole numbers (0–255) into 8-bit binary numbers and vice versa<br>• how to add two 8-bit binary integers and explain overflow errors which may occur<br>• binary shifts<br>• how to convert positive denary whole numbers (0–255) into 2-digit hexadecimal numbers and vice versa<br>• how to convert from binary to hexadecimal equivalents and vice versa<br>• check digits.<br>Characters<br>• the use of binary codes to represent characters<br>• the term 'character-set'<br>• the relationship between the number of bits per character in a character set and the number of characters which can be represented (for example ASCII, extended ASCII and Unicode).<br>Images<br>• how an image is represented as a series of pixels<br>• metadata included in the file<br>• the effect of colour depth and resolution on the size of an image file.<br>Sound<br>• how sound can be sampled and stored in digital form<br>• how sampling intervals and other factors affect the size of a sound file and the quality of its playback:<br>- sample size / - bit rate / - sampling frequency.<br>Compression<br>• need for compression<br>• types of compression: - lossy / - lossless |

EQUIPMENT REQUIRED

- Black Pen
- Pencil
- Ruler
- Calculator

# Business

GCSE Pod Playlist Title: ***Theme 1 Investigating Small Business***

Date of Examination: **Monday, 12th December** Length of paper: **1h 45**

| Topic | Details | Revision guide reference |
|---|---|---|
| 1.1 Enterprise and entrepreneurship | 1.1.1 Dynamic nature of business<br>1.1.2 Risk and reward<br>1.1.3 Role of business enterprise | Revision guide: p2-3, p8-10<br>Exam practice workbook: p5<br>Blue revision cards |
| 1.2 Spotting a business opportunity | 1.2.1 Customer needs<br>1.2.2 Market research<br>1.2.3 Market segmentation<br>1.2.4 Competitive environment | Revision guide: p4-8, p9-10<br>Exam practice workbook: p7-12<br>Blue revision cards |
| 1.3 Putting a business idea into practice | 1.3.1 Business aims and objectives<br>1.3.2 Business revenues, costs, and profits<br>1.3.3 Cash and cash-flow<br>1.3.4 Sources of finance | Revision guide: p11-20<br>Exam practice workbook: p22-28<br>Green revision cards |
| 1.4 Making the business effective | 1.4.1 Options for start-up and small businesses<br>1.4.2 Business location<br>1.4.3 Marketing mix<br>1.4.4 Business plans | Revision guide: p21-28<br>Exam practice workbook: p22-28<br>Purple revision cards |
| 1.5 Understanding external influences on business | 1.5.1 Business stakeholders<br>1.5.2 Technology and business<br>1.5.3 Legislation and business<br>1.5.4 The economy and business<br>1.5.5 External influences | Revision guide: p29-39<br>Exam practice workbook: p29-37<br>Orange revision cards |

**Notes - Formulas to learn:**
Total costs, revenue, break even, margin of safety, net cash-flow, opening and closing balances

# Health and Social Care

EQUIPMENT REQUIRED
- Pen
- Pencil
- Ruler

Date of Examination: **Thursday, 8th December 2022**

Length of paper: **45 minutes**

| Topic | Revision Reference |
|---|---|
| Definition of health and wellbeing | Class notes / M Teams |
| Genetic Inheritance | Class notes / M Teams |
| Chronic and acute illness | Class notes / M Teams |
| Supportive and unsupportive relationships | Class notes / M Teams |
| Diet | Class notes / M Teams |
| Importance of physical activity | Class notes / M Teams |
| Importance of personal hygiene | Class notes / M Teams |
| Illegal Drugs | Class notes / M Teams |
| Alcohol | Class notes / M Teams |
| Other factors affecting health (poverty/pollution etc.) | Class notes / M Teams |
| Pulse rates | Class notes / M Teams |
| Blood pressure | Class notes / M Teams |
| Peak flow | Class notes / M Teams |
| BMI | Class notes / M Teams |
| Lifestyle data | Class notes / M Teams |

**Notes:**
**You will only be completing Section A of the exam paper.**

# Revision Tracker

| Date | What I revised (brief overview of subject & topic) | How long (in minutes) | Parent Signature | Team Tutor Signature |
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