

# Year 11 Additional Assessments 2021



In this booklet you will find:

- Your assessment timetable.
- Key tips on how to revise.
- Specific revision tips/topics from your subject areas.

# GCSE ASSESSMENT TIMETABLE

## Assessment Window 1

| <b>Week beginning 19<sup>th</sup> April</b> | <i>Monday</i>   | <i>Tuesday</i> | <i>Wednesday</i> | <i>Thursday</i> | <i>Friday</i> |
|---|---|----------------|------------------|-----------------|---------------|
| <i>Lesson 1</i>                             | <b>Teaching and Learning Week- Preparation for Assessment</b> |                |                  |                 |               |
| <i>Lesson 2</i>                             |   |                |                  |                 |               |
| <i>Lesson 3</i>                             |   |                |                  |                 |               |
| <i>Lesson 4</i>                             |   |                |                  |                 |               |
| <i>Lesson 5</i>                             |   |                |                  |                 |               |

## Assessment Window 2

| <b>Week beginning 26<sup>th</sup> April</b> | <i>Monday</i>   | <i>Tuesday</i> | <i>Wednesday</i> | <i>Thursday</i> | <i>Friday</i>      |
|---|---|----------------|------------------|-----------------|--------------------|
| <i>Lesson 1</i>                             | <b>Spanish and French Speaking- Your timeslot for this will be given to you separately.</b> |                |                  | Chemistry       |                    |
| <i>Lesson 2</i>                             |   |                |                  |                 | English Literature |
| <i>Lesson 3</i>                             |   |                |                  | Sports Science  | French             |
| <i>Lesson 4</i>                             |   |                |                  |                 |                    |
| <i>Lesson 5</i>                             |   |                |                  |                 |                    |

## Assessment Window 3

| <b>Week beginning 3<sup>rd</sup> May</b> | <i>Monday</i>           | <i>Tuesday</i> | <i>Wednesday</i>               | <i>Thursday</i> | <i>Friday</i>    |
|--|-------------------------|----------------|--------------------------------|-----------------|------------------|
| <i>Lesson 1</i>                          | <b>May Bank Holiday</b> |                | RE                             |                 | Computing        |
| <i>Lesson 2</i>                          |                         |                |                                | Biology         |                  |
| <i>Lesson 3</i>                          |                         | Geography      |                                | Music           |                  |
| <i>Lesson 4</i>                          |                         |                | History                        |                 |                  |
| <i>Lesson 5</i>                          |                         | Maths          | Sports Science- Combined Paper |                 | English Language |

## Assessment Window 4

| Week beginning<br>10 <sup>th</sup> May | Monday  | Tuesday               | Wednesday | Thursday | Friday    |
|--|---------|-----------------------|-----------|----------|-----------|
| Lesson 1                               |         | English<br>Literature |           |          | Maths     |
| Lesson 2                               |         |                       |           | RE       |           |
| Lesson 3                               |         |                       |           | Business | Geography |
| Lesson 4                               | History |                       |           |          |           |
| Lesson 5                               |         | Maths                 | French    |          |           |

## Assessment Window 5

| Week beginning<br>17 <sup>th</sup> May | Monday                      | Tuesday                       | Wednesday                     | Thursday | Friday                       |
|--|-----------------------------|-------------------------------|-------------------------------|----------|------------------------------|
| Lesson 1                               | Functional Skills<br>French | English Language<br>(35 Mins) |                               | Maths    | Functional Skills<br>Spanish |
| Lesson 2                               | Functional Skills           |                               |                               |          | Functional Skills            |
| Lesson 3                               |                             | Spanish                       | English Language<br>(25 mins) | Spanish  |                              |
| Lesson 4                               |                             |                               |                               |          |                              |
| Lesson 5                               | Food Tech<br>Drama          |                               | History                       |          | Physics                      |

## Assessment Window 6

| Week beginning<br>24 <sup>th</sup> May | Monday         | Tuesday                                 | Wednesday                        | Thursday                             | Friday |
|--|----------------|---|----------------------------------|--------------------------------------|--------|
| Lesson 1                               | Business       | Food Tech<br>Exam<br><br>Catch Up Day 2 | Food Tech Exam<br>Catch Up Day 2 | Catch up day 3<br>&<br>PE Moderation |        |
| Lesson 2                               |                |   |                                  |                                      |        |
| Lesson 3                               |                |   |                                  |                                      |        |
| Lesson 4                               | Product Design |   |                                  |                                      |        |
| Lesson 5                               |                |   |                                  |                                      |        |



*Lord, I know you are with me and love me.  
Give me peace of mind as I prepare for this time of study.  
Help me to focus on my books and notes,  
keep me from all distractions so that I will make the best  
use  
of this time that is available to me.*

*Give me insight that I might understand what I am  
studying,  
and help me to remember it when the time comes.  
Above all, I thank you for the ability to be able to study  
and for the many gifts and talents you have given me.  
Help me always to use them in such a way  
that they honour you and do justice to myself.*

*Amen*

# Year 11 GCSE Business

## Theme 1:

- 'Trade credit' (1.3.4)
- 'Market mapping' (1.2.3)
- Break even and analysis of break-even (1.3.2)
- The marketing mix (Topic 1.4.3)
- The competitive environment (1.2.4)
- Technology and business (1.5.2)
- Customer needs (1.2.1)

## Theme 2:

- 'Pricing strategies and factors affecting the choice of pricing strategy' (2.2.2)
- 'Batch production' and advantages and disadvantages (2.3.1)
- Importance of good customer service (2.3.4)
- 'Relationships with suppliers' (2.3.2)
- 'Different ways of working' (2.5.1)

**Please also revise the structures for the different types of questions:**

**Outline** – 2 marks. Point, develop and must be in CONTEXT

**Explain** – 3 marks. Point, leads to and therefore. 3 chains. **NO** CONTEXT.

**Analyse** – 6 marks. 2 reasons/impacts/paragraphs. BLT and apply to CONTEXT.

**Discuss** – 6 marks. Same structure as an 'analyse' question but **NO** CONTEXT needed.

**Justify/choice** – 9 marks. Pick and stick! Like a 6 mark analyse but include a drawback of your CHOSEN option. Must use the CONTEXT. Include a conclusion – which is the main reason and why? What does your decision depend on?

# Computer Science

## Key skills being tested in this assessment:

In the assessment your understanding of the content from Unit 2 will be checked. Make sure you use the “Unit 2 Revision Checklist” to RAG (Red Amber Green) rate your understanding of the topics and to guide your revision. This can be found in:

Shared → Computing & IT → GCSE Computer Science → Revision → Unit 2

To revise:

- Read through your completed exercises and worksheets, both in your exercise book and in Teams assignments.
- Read through pages 33-76 of your blue revision guide
- Work through exercises on pages 49-86 of your white exam practice workbook
- Re-watch the videos on YouTube - <https://student.craigndave.org/gcse-videos>
- Use your SmartRevise account to check your understanding – filter the questions for the topics shown below.

There will be a range of question styles: Multiple choice, short answer and long answer

## Key topics to revise for this assessment:

Topics covered in the assessment will be:

|   |  |
|---|--|
| 2.1 - Algorithms                              | <ul style="list-style-type: none"><li>• Standard searching algorithms</li><li>• Standard sorting algorithms</li><li>• Interpret, correct or complete algorithms.</li></ul> |
| 2.2 - Programming Techniques                  | <ul style="list-style-type: none"><li>• The use of the 3 basic programming constructs</li><li>• How to use sub programs</li><li>• The use of data types</li></ul>          |
| 2.3 - Producing robust programs               | <ul style="list-style-type: none"><li>• Maintainability</li></ul>  |
| 2.4 - Computational Logic                     | <ul style="list-style-type: none"><li>• Simple logic diagrams using the operations AND, OR and NOT</li><li>• Truth tables</li></ul>  |
| 2.5 - Translators and Facilities of Languages | <ul style="list-style-type: none"><li>• Common tools and facilities available in an integrated development environment (IDE)</li></ul>                                     |
| 2.6 - Data Representation                     | <ul style="list-style-type: none"><li>• Numbers</li></ul>  |

## Year 11 AQA GCSE Drama

**Section A: This will not be on the assessment.**

**Section B: Study of Set Play (Blood Brothers) There will be three questions which have to be answered (worth 4, 8 and 12 marks ... we will not be doing the 20 marker question on the assessment)**

There will be a mixture of questions about technical elements and performance elements so make sure you look at technical and performing information as well as your information on Social and Historical Context (the setting, period, and what was going on when it was written, why Willy Russell wrote the play).

Blood Brothers. Re-read Blood Brothers

- Technical - Look at Costume and set design for the production
- Performing – Look at the main characters:
  - Mickey,
  - Eddie,
  - Mrs Johnstone,
  - Mrs Lyons,
  - Linda
- Look at your list of performance skills and revise the terminology
- Look at your character profiles for each character
- Look at key scenes between main characters and make sure you understand the relationships between the characters.
- Make sure you understand what is being communicated in each scene – what is happening and where does this come in the context of the play as a whole?



**Section C: Live Theatre Production (ONE essay style question from a choice of THREE, worth 16 marks, half the original as we will only want two examples from the play rather than three/four)**

- Focus of question could be any of the following:
- Acting/Lighting or Sound/Costume or Set/Director

Revise a performance that you have recently seen (Billy Elliott). Memorise important quotes or moments that were particularly important and revise terminology in terms of acting and design.

***Describe*** – set out characteristics

***Explain*** – set out purposes or reasons

***Analyse*** – separate information into components and identify their characteristics

***Evaluate*** – judge from available evidence

**Resources to help with revision:**

Lesson Power Points (Teams/Ruler)

AQA Study Guide Textbook (Physical copy)

BBC Bitesize ([www.bbc.co.uk/bitesize/examspecs/zrnjwty](http://www.bbc.co.uk/bitesize/examspecs/zrnjwty))

## English Language

You will be sitting a full Paper 1 for this summer's assessments; the Paper will be split up over three sessions:

- Session 1 – descriptive and narrative writing (normally section B of the paper)
- Session 2 – Q1/2/3 of the reading paper
- Session 3 – Q4 of the reading paper

These questions are the same type of question you completed for the November mock exam. As a reminder, these are as follows:

|         |   |  |
|---------|---|--|
| Reading | Q1 (4 marks / 4 minutes)                        | List 4 things  |
|         | Q2 (8 marks / 10 minutes)                       | How does the writer use language in order to...                                    |
|         | Q3 (8 marks / 10 minutes)                       | How does the writer structure the text to interest you as a reader?                |
|         | Q4 (20 marks / 20 minutes)                      | To what extent do you agree with the statement.                                    |
| Writing | Q5 (40 marks / 45 minutes) – choice of question | Descriptive writing based on an image<br>Narrative writing based on a story prompt |

### What to revise

For reading:

- How to tackle each of the questions: timings, the “ingredients” of each question, examples needed, methods. **There is a walkthrough video available on Teams under the ‘Year 11 English’ team**
- Different language methods, such as similes, metaphors, personification, verbs, adjectives, repetition, alliteration, etc.
- Different structural methods, such as shifts in focus, narrative perspective, etc.
- **Look at the sample answers you will have gone through in lessons. Again, these are available on the walkthrough video**

For writing:

- The difference between descriptive and narrative writing
- How to construct a descriptive piece (‘big picture’ paragraph, zooming in, using details from a picture, etc.)
- How to construct a narrative piece (plot, character, tension, dialogue etc.)
- Varied forms of punctuation and how to use these accurately
- Look over assessed work to see what your strengths and weaknesses are



## English Literature

You will be sitting an assessment on **Macbeth** and **An Inspector Calls**.

- Session 1 – Macbeth
- Session 2 – An Inspector Calls

These questions are the same type of question you completed for the November mock exam/in class essays. As a reminder, these are as follows:

|  |   |
|--|---|
| Macbeth (30 marks / 45 minutes)            | One question (no choice); extract provided with reference to both the extract and the whole play required |
| An Inspector Calls (30 marks / 45 minutes) | One question (no choice); no extract or copy of the text provided   |

### **What to revise**

For Macbeth:

- The character of Lady Macbeth and:
  - Her role in the events of the play
  - Her relationship with Macbeth
  - Her characteristics
  - Her links to key themes (e.g. appearance vs. reality, the supernatural)
  - Her link to the play's context (e.g. role of women in Shakespearean times)
  - Some key quotes
- The plot of the play (i.e. what happens)
- The methods used in the play (e.g. dramatic irony, imagery, etc.)
- The historical context (e.g. the great chain of being, divine rights of Kings etc.)

For An Inspector Calls:

- The character of Mr Birling and:
  - His role in the events in the play
  - His relationship with other characters, including Eva Smith
  - His characteristics
  - His links to key themes (e.g. class, capitalism vs. socialism)
  - His link to the play's context (e.g. Edwardian attitudes, gender roles)
  - Some key quotes
- The plot of the play (i.e. what happens)
- The methods used in the play (e.g. dramatic irony, entrances and exits, etc.)
- The historical context (e.g. 1912 vs. 1946)

IT WOULD BE WISE  
TO RE-READ AND/OR  
RE-WATCH BOTH  
TEXTS

For both texts:

1. How to approach an exam question (remember the approach is different for these: Macbeth has an extract whereas An Inspector Calls does not)

# Food Technology Assessment

- 45 minute paper
- Three hour practical exam

## Structure:

10 multiple choice questions (on topics; nutrition, health and safety and food science)

A selection of long and short answer questions on the following topics:

- Nutrition (including government guidelines and dietary conditions)
- Food science
- Health and Safety

## Remember:

- Always be specific with your answer (e.g. saturated / unsaturated, HBV, LBV, Simple, Complex etc.).
- Always use key words throughout and explain each answer fully

|   | Food, Nutrition and Health   | RAG |
|---|--|-----|
| Protein   | HBV / LBV  |     |
| Fats  | Saturated / Unsaturated / Visible / Invisible  |     |
| Carbohydrates                                   | Simple Sugars (monosaccharide), Complex sugars (disaccharide and polysaccharide), Free sugars, Fibre   |     |
| Vitamins  | Fat soluble: A, D, E and K<br>Water soluble: B group vitamins, vitamin C<br>How to retain water soluble vitamins                                 |     |
| Minerals  | Calcium, phosphorous, iron, sodium, fluoride, iodine   |     |
| Current government guidelines                   | 8 government guidelines<br>Eat well plate  |     |
| Energy needs                                    | Different energy needs   |     |
| Health conditions                               | Obesity, Cardiovascular health, bone health, dental health, iron deficiency anemia, type 2 diabetes  |     |
| Food Science                                    |  |     |
| Heat transfer                                   | Convection, Conduction and Radiation   |     |
| Cooking methods                                 | Water based, fat based and dry methods and the advantages and disadvantages of each of these.  |     |
| Protein   | Denaturation   |     |
|   | Coagulation  |     |
|   | Gluten formation   |     |
|   | Foam formation   |     |
| Carbohydrates                                   | Gelatinisation   |     |
|   | Dextrinisation   |     |
|   | Caramelisation   |     |
| Fats  | Shortening   |     |
|   | Aeration   |     |
|   | Plasticity   |     |
|   | Emulsification   |     |
| Food Safety and Choices                         |  |     |
| Food spoilage                                   | Enzymic action, mould growth, yeast action<br>4 conditions for bacteria growth<br>High risk foods  |     |
| Micro-organisms in food                         | Use of micro-organisms in cheese production, yeasts in bread and bacteria in yoghurt and cheese production                                       |     |
| Bacterial contamination                         | Campylobacter, e-coli, salmonella, listeria, staphylococcus aureus   |     |
| How to store and cook food safely               | Key temperatures of food production  |     |
| What factors affect food choice                 | Activity level, celebration, cost, preferences, enjoyment, availability, health eating, income, lifestyle, seasonality, time of day, convenience |     |
| Food Choices – Religion                         | Buddhism, Christianity, Hinduism, Islam, Judaism, Rastafarianism and Sikhism   |     |
| Environmental impact and sustainability of food |  |     |
| How ingredients are reared and caught           | Advantages and disadvantages of local produced foods, Seasonal foods   |     |
| Environmental impact of food                    | Carbon Footprint, Food miles, Global warming   |     |

Three hour exam:

| Mark  | Description  |
|-------|--|
| 25–30 | <ul style="list-style-type: none"><li>• Competently executes a wide range of complex technical skills and processes to an excellent standard (such as filleting fish or cutting vegetables with precision and accuracy eg julienne) in the making of the three final dishes.</li><li>• Selects and uses appropriate equipment with precision and accuracy.</li><li>• The three final dishes show a high level of demand, complexity and challenge.</li><li>• Final three dishes include a wide range of finishing techniques such as garnishing and decoration eg piping. All dishes are accurately presented with attention to detail and finished to an excellent standard.</li><li>• Excellent evidence of time management. All three dishes produced very successfully within the three hour period. The student followed the time plan closely using the correct sequence with excellent linking and application of food safety principles.</li></ul> |
| 19–24 | <ul style="list-style-type: none"><li>• Competently executes a range of technical skills, including some complex skills (such as filleting fish or cutting vegetables with precision and accuracy eg julienne) to a very good standard in the making of the three final dishes.</li><li>• Selects and uses appropriate equipment accurately.</li><li>• The three final dishes show complexity and challenge.</li><li>• The three final dishes show a range of appropriate finishing techniques and are presented to a very good standard.</li><li>• Very good evidence of time management. All three dishes were produced successfully within the 3 hour period. The student followed the time plan using the correct sequence with very good linking and application of food safety principles.</li></ul>   |

Tips:

- Ensure you plan your presentation
- Communicate early your requirements on any special ingredient or piece of equipment
- Ensure you practice your dishes at home
- Ensure you understand your time plan



# French Revision Sheet



## Your assessments will include:

-A **Reading** paper.

-A **Writing** paper.

Although there are just two assessments, these will be spread over **3 x 45 minute sessions**.

To provide evidence for your Speaking Accreditation, you will also give a short presentation, and then answer a minimum of 2 questions in French, with your teacher. This does not form part of GCSE; it is a

## Writing Paper

You will sit a GCSE Writing Paper made up of AQA GCSE questions.

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The **Foundation Paper** will include:

-A photocard, 40 word task, 90 word task, translation.

The 40 word task will be on the topic of **Free-time activities**.

The 90 word task will be on the topic of **Healthy Living**.

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The **Higher Paper** will include:

-A 90 word task, a 150 word task, translation.

The 90 word task will be on the topic of **Healthy Living**.

The 150 word task will be on the topic of **Environment**.

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Your teacher will look at these topics with you in class, but **it is vital that you revise these topics at home, too!**

## Reading Paper

You will sit a GCSE Reading Paper made up of AQA GCSE questions.

To help you to revise for this, Past Papers and Memrise will be really useful tools!

The paper is made up of questions in English, questions in French and a translation from French to English.

## Speaking Accreditation

In addition to your GCSE, you will receive a Speaking Accreditation. This is a separate qualification and does not form part of your GCSE.

The Speaking task will last approximately 3 minutes in total.

You will:

Present for 1 minute on the topic of **Healthy Living**.

Answer at least 2 questions from your teacher on the topic of **Free time**.

Your teacher will help you to prepare these in lessons, **but it is essential that you practise them**. You will not have notes in the assessment.

## Your assessments will take place on:

**Fri 30<sup>th</sup> April** – (Period 3) – **Foundation** – (Reading Paper) **Higher** – (Reading paper, minus last questions)

**Tues 11<sup>th</sup> May** – (Period 3) - **Foundation** – (Photocard and 90 word task) **Higher** – (Last 2 Questions, 90 Word Task, translation)

**Weds 12<sup>th</sup> May** – (Period 5) - **Foundation** – (40 word task and translation) **Higher** – (150 word task)

Your **Speaking Accreditation** will take place during the week beginning 26<sup>th</sup> April. Your teacher will provide you with an exact date and time.

# FUNCTIONAL SKILLS ENGLISH REVISION

## Reading

- Read text A first and answer the questions in Section A.
- Read text B, then answer those questions and then text C and answer those.
- Remember to use a dictionary for words you don't know (one will be supplied).
- Look at similarities between texts for the exact point specified and find appropriate quotes for each point made.
- Remember to look for language features and how the texts are structured.

PETER

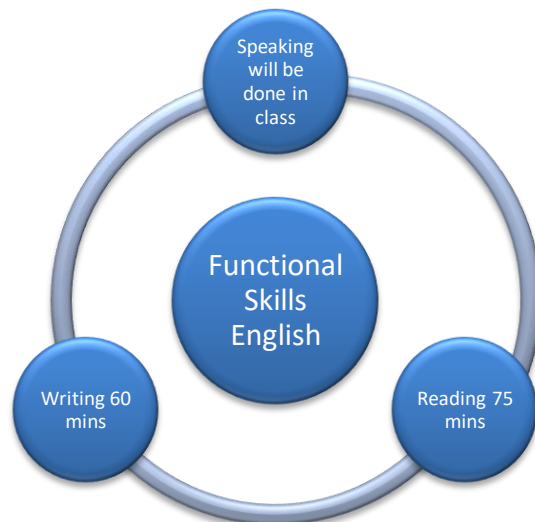
Point

Evidence

Technique

## Writing

- Remember the correct format eg. formal letter.
- Look at the age and type of audience you are writing to.
- Include different language features eg. rule of three, simile, rhetorical question.
  - Use a variety of punctuation - !, ? : ; ... ( ) " "
- Make sure you do the word count.



## Speaking and Listening

- Group discussion 3-4 students
- Choose a topic and prepare notes which can be used during the discussion
- Make sure that everyone in the group takes an equal part in the discussion
- Involves others by saying their name and what do you think..?
- Presentation 3-5 mins on a different topic of your choice.
- You will need to prepare a powerpoint of around 5 slides and a handout for others.
- Notes can be used and others in your group will ask you questions.

### Language Features

Statistics  
Opinions  
Direct address  
Metaphors  
Alliteration  
Personification  
Similes  
Rhetorical question  
Triplets  
Emotive language

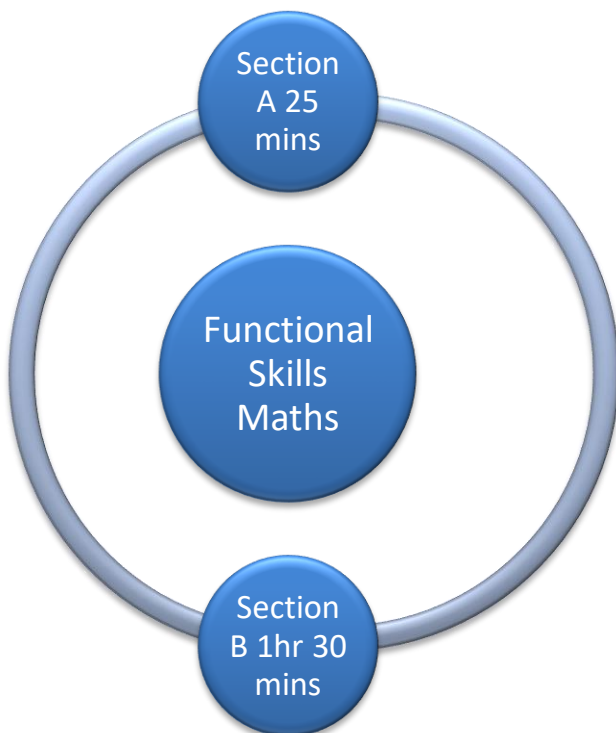
# FUNCTIONAL SKILLS MATHS REVISION

## Section A

- 25 mins
- Mental maths - no calculators allowed.
- Show your workings.
- Sometimes you are asked to show a check which means working out the problem another way or 'backwards'.
- Revise times tables if you find these difficult.

## Section B

- 1hr 30 mins
- Bring a calculator and use it (at least to check answers)
- Show all workings
- If you finish early redo every question from the beginning to check answers.



### Topics

**Rounding and significant figures**

**Negative numbers**

**Mode, median, mean and range**

**Area and perimeter**

**Imperial and metric measures**

**Shapes**

**Time – 12hr and 24hr clock**

**Tables and charts**

**Fractions, decimals and percentages**

# Geography

You will all sit two assessments one for Unit 1 (Physical Geography – **Green Book**) and one for Unit 2 (Human Geography – **Orange Book**) and both assessments will last **45 minutes** each. Students who are entitled to extra time will then have a further **15 minutes** within the lesson to complete their paper. You are **NOT** going to be assessed on everything. You only need to revise what is on the following list – and **NOTHING ELSE**.

## Unit 1 – Revision List (Paper 1)

### Section A - The Challenge of Natural Hazards

#### Tectonics (Y10)

- What is a Natural Hazard and how can we classify them? (pg 8 – 9)
- Plate Boundaries (pg 10 - 13)

#### Weather (Y10)

- Reducing the Effects of Tropical Storms (pg 30 – 31)

#### Climate Change (Y10)

- Human Activity and the Enhanced Greenhouse Effect (pg 44 - 45)
- How can we manage the impacts of climate change? Adaptation and Mitigation (pg 46 – 49)

### Section C – Physical Landscapes in the UK (**Rivers and Coasts**)

#### Rivers (Y11)

- The Profile of a River (pg 114 – 115)
- Characteristics of Erosional Features and how they Form (**V Shaped Valleys, Interlocking Spurs, Meanders and Oxbow Lakes**) (pg 118 – 120)
- Formation of Depositional Features (**Floodplains, Levees and Estuaries**) (pg 121)
- River Management Strategies (Hard and Soft) (pg 126 – 129)
- Storm Hydrographs – Factors that Affect the Shape (pg 124 – 125)
- Human and Physical Causes of Flooding (pg 124 – 125)

#### Coasts (Y11)

- Formation of Erosional Features (**Headlands, Bays, Caves, Arches, Stacks, Stumps, Wave Cut Notches, Wave Cut Platforms**) (pg 98 – 99)
- Advantages and Disadvantages of Coastal Management Strategies (pg 106 – 111)
- Case Study: A Named Coastline of Coastal Management and Its Effectiveness (**Lyme Regis**) (pg 112 – 113)

## Unit 2 – Revision List (Paper 2)

### Section A – Urban Issues and Challenges

#### The Urban World – Urbanisation (Y10)

- Megacities (pg 150 – 151)
- What is Urbanisation and Push and Pull Factors (pg 148 – 151)

\*There are no questions on Rio and Sustainable Urban Development\*

#### Urban Change in the UK - Manchester (Y10)

- Case Study: The Impacts of Urban Regeneration (**Salford Quays**) (NOT IN TEXTBOOK, NEED OWN NOTES)

### Section B – The Changing Economic World

#### The Changing UK Economy (Y11)

- Changing Transport Infrastructure in the UK (pg 244 – 247)
- The North South Divide (pg 248 – 249)
- Strategies to Reduce the North South Divide (**Local Enterprise Partnerships and Enterprise Zones**) (pg 248 – 249)

\*There are no questions on the Development Gap or Nigeria\*

#### The Challenge of Resource Management

- Provision of Food in the UK (pg 258 – 259)
- Economic and Environmental Issues linked to Energy Production in the UK (pg 262 – 263)
- Challenges of Managing Water Quality and Pollution in the UK (pg 260 – 261)

#### Water

- How Can Water Supplies be Made More Sustainable? (pg 284 – 285)
- Impacts of Water Insecurity (pg 276 – 279)
- Case Study: Advantages and Disadvantages of a Large-Scale Water Management Schemes (**Lesotho Highland Water Project**) (pg 282 – 283)

#### Skills Content:

1. Extended Writing
2. Map Reading (Including grid references and distance)
3. Calculating averages (mode, mean, range and median)
4. Percentages
5. Plotting Graphs


#### Equipment List for Both Papers:


Pen  
Pencil  
Ruler  
Rubber  
Calculator




# History

## Year 11 History Assessments revision sheets

|   |  |  |   |   |
|---|--|--|---|---|
|  <b>This is what you need to know for assessment 1:</b>  |  | <b>Where to find some extra information: start with your book</b>  |   |   |
|   |  | <b>Kerboodle</b><br><i>Conflict and Tension East and West 1945-1972 textbook</i>   | <b>Revision Book</b><br><i>Oxford AQA Conflict and Tension – on TEAMS</i> | <b>BBC Bitesize</b><br><i>There are good revision guides and videos if you click these links</i>                                |
| <b>The Origins of the Cold War:</b> you need to know how events like the Potsdam Conference, the Atom bomb, Soviet take-over of Europe, Truman Doctrine & Marshall Aid and the Berlin Blockade and Airlift increased tension.   |  | pages 18-35  | pages 14-25   | <a href="https://www.bbc.co.uk/bitesize/guides/zt8ncwx/revision/1">https://www.bbc.co.uk/bitesize/guides/zt8ncwx/revision/1</a> |
| <b>The development of the Cold War:</b><br><b>The U2 Crisis:</b> the causes, events and consequences of the U2 Crisis   |  | pages 58-61  | page 40-41  | <a href="https://www.bbc.co.uk/bitesize/guides/zxds4j6/revision/6">https://www.bbc.co.uk/bitesize/guides/zxds4j6/revision/6</a> |
| <b>The Transformation of the Cold War:</b><br><b>The Cuban Missile Crisis:</b> the causes, events and consequences of the Cuban Missile Crisis  |  | pages 70-79  | pages 45-51   | <a href="https://www.bbc.co.uk/bitesize/guides/zsfwhv4/revision/4">https://www.bbc.co.uk/bitesize/guides/zsfwhv4/revision/4</a> |
| <b>How do you know source question:</b><br><i>Remember to</i> <ul style="list-style-type: none"> <li>comment on how what you can see and read in the source links to the question.</li> <li>explain why the cartoon would show this at this particular time.</li> <li>comment on how the background and when the source was produced links to the question.</li> <li>explain why it would do this at this time</li> <li>spend about 5-6 minutes on this question</li> </ul> | <b>How useful source question:</b><br><i>Remember to</i> <ul style="list-style-type: none"> <li>summarise what the source tells you with examples;</li> <li>remember to compare what it tells you to your knowledge;</li> <li>remember to comment on why the background of the source would be useful, and link this to your knowledge.</li> <li>remember to do this for both sources</li> <li>spend about 15-17 minutes on this question</li> </ul> | <b>16 marker essay question:</b><br><i>Remember to</i> <ul style="list-style-type: none"> <li>write at least one PEE paragraph that explains why the point in the statement is correct.</li> <li>remember to try and include at least 3 examples of knowledge in each paragraph</li> <li>write at least one more PEE paragraph that challenges the view in the statement.</li> <li>The best answers will make a judgment on the “how far” part of the question. Perhaps the statement was correct to begin with, but then something else became more important.</li> </ul> |   |   |

|  |  |   |  |   |
|--|--|---|--|---|
|  <b>This is what you need to know for assessment 2:</b> |  | <b>Where to find some extra information: start with your book</b> |  |   |
|  |  | <b>Kerboodle</b><br><i>Germany 1890-1945 textbook</i>             | <b>Revision Book</b><br><i>Oxford AQA Germany – on TEAMS</i> | <b>BBC Bitesize</b><br><i>There are good revision guides and videos if you click these links</i>                                |
| <b>Germany</b><br><b>Germany and the Growth of democracy</b>   |  | pages 18-29   | pages 17-23  | <a href="https://www.bbc.co.uk/bitesize/guides/z8vt9qt/revision/1">https://www.bbc.co.uk/bitesize/guides/z8vt9qt/revision/1</a> |

|  |  |            |   |
|--|--|------------|---|
| The impact of the Treaty of Versailles<br>Germany's problems 1919-23<br>The Munich or Beer Hall Putsch   |  |            |   |
| <b>Germany and the Depression</b><br>The reasons for the increased support for Hitler and the Nazis  | pages 36-45  | page 24-29 | <a href="https://www.bbc.co.uk/bitesize/guides/zckbmnb/revision/1">https://www.bbc.co.uk/bitesize/guides/zckbmnb/revision/1</a>   |
| <b>The experience of ordinary Germans under the Nazis</b><br>The Treatment of Jewish People  | pages 68-71  | Page 46-47 | <a href="https://www.bbc.co.uk/bitesize/guides/zp3p82p/revision/7">https://www.bbc.co.uk/bitesize/guides/zp3p82p/revision/7</a>   |
| <b>4-4-8 Interpretations questions</b><br><b>Part 1:</b> just compare the content of the interpretations. Remember to include a quote.<br><b>Part 2:</b> compare the background and use some of your knowledge to explain why they might have that different point of view.<br><b>Part 3:</b> compare what the interpretations are saying with your knowledge. Which is the more accurate and why. | <b>In what ways question:</b><br>Remember to <ul style="list-style-type: none"> <li>write more than one PEE paragraph about the impact or change.</li> <li>Remember that when you write about change, you have to give examples from the before and after.</li> <li>Remember to try and write about social, political and economic changes.</li> </ul> |            | <b>Bullet point essay question:</b> <ul style="list-style-type: none"> <li>Write a PEE paragraph to explain how each bullet point led to the statement in the question.</li> <li>Remember to use accurate examples.</li> <li>Write a conclusion. Perhaps one bullet point was more important at a particular time.</li> </ul> |

|  |  |   |
|--|--|---|
|  <b>This is what you need to know for assessment 3:</b>  | <b>Where to find some extra information: start with your book</b>  |   |
|  | <b>Kerboodle</b><br>Thematic studies textbook  | <b>Revision Book</b><br>Oxford AQA Health and the People– on TEAMS  |
| <b>The treatment of disease:</b><br>Vaccinations and the prevention of disease<br>Penicillin and the treatment of disease  | Vaccinations p 40-41 & 52-53,<br>Penicillin p 62-65  | Search for the key terms  |
| <b>Key individuals:</b> Jenner, Fleming, Pasteur, William Harvey, Joseph Lister  | Jenner p40-14 Fleming p62-63<br>Pasteur p44-45, Harvey p30-31<br>Lister p46-47   | Search for the key terms  |
| <b>Surgery</b> John Hunter, & surgery the 18 <sup>th</sup> and 19 <sup>th</sup> Century  | Hunter p38-39  | Search for the key terms  |
| <b>How useful question:</b><br>Remember to <ul style="list-style-type: none"> <li>summarise what the source tells you with examples;</li> <li>remember to compare what it tells you to your knowledge;</li> <li>remember to comment on why the background of the source would be useful, and link this to your knowledge.</li> </ul> | <b>Significance question:</b><br>Remember to <ul style="list-style-type: none"> <li>think like a historian: something is significant if it is the first time or a turning point that led to a change.</li> <li>write about why they were significant at the time AND why they were significant a long time later.</li> </ul> | <b>Comparison question</b> <ul style="list-style-type: none"> <li>Write a PEE paragraph for each way that they were similar.</li> <li>Remember to use examples.</li> <li>Try to think like a historian – think about what happened and why it happened.</li> <li>Think about what the consequences were, at the time and in the long term,</li> </ul> |



# Italian Revision Sheet



## Your assessments will include:

- A **Listening** paper
- A **Reading** paper.
- A **Writing** paper.

To provide evidence for your **Speaking Accreditation**, you will also give a short presentation, and then answer a minimum of 2 questions in Italian. This does not form part of GCSE; it is a separate

## Themes of study

Theme 1: Identity and culture

Theme 2: Local, national, international and global areas of interest

Theme 3: Current and future study and employment

## You will find information about the course, including topics, vocabulary and past papers on the AQA website:

<https://www.aqa.org.uk/subjects/languages/gcse/italian-8633/introduction>

## Writing Paper

You will sit a GCSE Writing Paper made up of AQA GCSE questions.

You will sit the **Higher Paper**, will include:

- A 90 word task
- A 150 word task
- A translation.

## Reading Paper

You will sit a GCSE Reading Paper made up of AQA GCSE questions.

To help you to revise for this, Past Papers will be really useful! You can find these on the AQA website.

The paper is made up of questions in English, questions in Italian and a translation from Italian to English.

## Listening Paper

You will sit a GCSE Writing Paper made up of AQA GCSE questions.

You will sit the **Higher Paper**.

To help you to revise for this, Past Papers will be really useful. You can find these on the AQA website.

## Speaking Accreditation

In addition to your GCSE, you will receive a Speaking Accreditation. This is a separate qualification and does not form part of your GCSE.

The Speaking task will last approximately 3 minutes in total.

You will:

Present for 1 minute on the topic of **Healthy Living**.

Answer at least 2 questions on the topic of **Free time**.

## Your assessments will take place on:

Tuesday 27<sup>th</sup>, Wednesday 28<sup>th</sup> and Thursday 29<sup>th</sup> April

Your **Speaking Accreditation** will also take place during the week beginning 26<sup>th</sup> April. You will be informed of an exact date and time.

### **Mathematics - Foundation Revision List**

The Hegarty Maths clips for relevant topics are listed. It is also suggested you use other resources such as your exercise books, revision guides and past papers to further aid your revision.

#### **Paper 1 (Non Calculator)**

| <b>Topic</b>                    | <b>Hegarty Clips</b> |
|---------------------------------|----------------------|
| Bar Charts                      | 425                  |
| Converting Units of Measurement | 691-694              |
| Expanding Double Brackets       | 162-164              |
| Factorising Quadratics          | 223-226              |
| Forming Equations               | 176                  |
| Fractions                       | 57-71                |
| Multiplication                  | 21 & 23              |
| Negative Numbers                | 37-44                |
| Percentages                     | 81-87                |
| Pressure                        | 734-737              |
| Rotation                        | 648-649              |
| Rounding to Decimal Places      | 56                   |
| Sequences                       | 196-198              |
| Simultaneous Equations          | 190-193              |
| Two Way Tables                  | 422-424              |

#### **Paper 3 (Calculator)**

| <b>Topic</b>                         | <b>Hegarty Clips</b> |
|--------------------------------------|----------------------|
| Addition                             | 18 & 20              |
| Angles in a Triangle                 | 485-487              |
| Area of Circles                      | 539-543              |
| Averages                             | 405                  |
| Compound Interest                    | 94                   |
| Exchange Rates                       | 707-708              |
| FDP (Fractions/Decimals/Percentages) | 149                  |
| Line Graphs                          | 450                  |
| Money Problems                       | 743-754              |
| Percentage of an Amount              | 84-87                |
| Percentages Problems                 | 98                   |
| Rearranging Formulae                 | 280-281              |
| Recipes                              | 739-742              |
| Stem and Leaf Diagrams               | 430-433              |
| Using a Calculator                   | 128                  |

#### **Paper 2 (Non Calculator)**

| <b>Topic</b>                         | <b>Hegarty Clips</b> |
|--------------------------------------|----------------------|
| Area Problems                        | 553-559              |
| Factorising                          | 168-169              |
| FDP (Fractions/Decimals/Percentages) | 149                  |
| Indices                              | 102-107              |
| Parallel Lines                       | 480-483              |
| Percentage Increase/Decrease         | 97                   |
| Percentages Problems                 | 98                   |
| Product of Prime Factors             | 29-30                |
| Properties of 3D Shapes              | 829-830              |
| Proportion                           | 339-341              |
| Pythagoras                           | 498-502              |
| Ratio Problems                       | 328-337              |
| Solving Equations                    | 177-180              |
| Substitution                         | 780-783              |
| Using Formulae                       | 155                  |

#### **Paper 4 (Calculator)**

| <b>Topic</b>                    | <b>Hegarty Clips</b> |
|---------------------------------|----------------------|
| Bearings                        | 492-496              |
| Conversion Graph                | 712-713              |
| Converting Units of Measurement | 695-696              |
| Drawing a 2D shape              | 822                  |
| Error Intervals                 | 774-777              |
| Fractions/Ratio                 | 330                  |
| Inequalities                    | 265-269              |
| Mean from a Table               | 417-418              |
| Number Problem                  | 23                   |
| Probability (Single Events)     | 351-353              |
| Ratio                           | 332-334              |
| Scale                           | 864-868              |
| Scatter Graphs                  | 453-454              |
| Using a Formula                 | 155                  |
| Volume of Prisms                | 570-571              |

### **Mathematics - Higher Revision Lists**

The Hegarty Maths clips for relevant topics are listed. It is also suggested you use other resources such as your exercise books, revision guides and past papers to further aid your revision.

#### **Paper 3 (Calculator)**

| Topic                                 | Hegarty Clips     |
|---------------------------------------|-------------------|
| Area of Circles                       | 539-543           |
| Bounds and Calculations               | 137-139           |
| Circle Theorems                       | 594-606 & 817-820 |
| Compound Interest                     | 94                |
| Currency Conversions                  | 707-708           |
| Frequency polygons                    | 441               |
| Frequency tables                      | 414-418           |
| Functions                             | 288-296           |
| Histograms                            | 442-449           |
| Pythagoras' Theorem                   | 498-504           |
| Reciprocals                           | 71                |
| Straight Line Graphs/Real Life Graphs | 201-211, 894      |
| Trigonometry                          | 508-515           |
| Use of Calculator                     | 129               |
| Velocity-time graphs                  | 880-886           |

#### **Paper 4 (Calculator)**

| Topic                          | Hegarty Clips |
|--------------------------------|---------------|
| Algebraic Fractions            | 172, 229      |
| Algebraic Proof                | 325-326       |
| Completing the Square          | 235-237       |
| Compound Interest/Depreciation | 94,95         |
| Cosine Rule                    | 527-530       |
| Enlargement                    | 642-647       |
| Pythagoras' Theorem            | 498-504       |
| Ratio                          | 331-334       |
| Rearranging Formulae           | 280-284       |
| Recurring Decimals             | 53-54         |
| Scatter Graphs                 | 453-454       |
| Simultaneous Equations         | 190-195       |
| Standard form                  | 122-128       |

#### **Paper 1 (Non Calculator)**

| Topic                 | Hegarty Clips |
|-----------------------|---------------|
| Algebraic Fractions   | 229           |
| Angles (with algebra) | 478,487,814   |
| Averages              | 405-408       |
| Compound Measurements | 734-737       |
| Volume                | 570-581       |
| Probability           | 354           |
| Probability Trees     | 361-367       |
| Rearranging Formulae  | 280-286       |
| Straight Line Graphs  | 206-216       |
| Surds                 | 113-119       |
| Trigonometry          | 845-851       |
| Unit Conversions      | 704           |
| Volume and Money      | 583           |

#### **Paper 2 (Non Calculator)**

| Topic                     | Hegarty Clips |
|---------------------------|---------------|
| Algebraic Fractions       | 229           |
| Angles in Parallel Lines  | 481-483       |
| Area Problems             | 553-559       |
| Histograms                | 442-449       |
| Congruent Triangles       | 682-690       |
| Direct/Inverse Proportion | 343-347       |
| Equation of a Circle      | 778-779       |
| Estimation                | 131           |
| Fractions                 | 57-71         |
| Probability               | 358-369       |
| Pythagoras' Theorem       | 498-504       |
| Quadratic formula         | 241-243       |

# Revision Notes – GCSE Music

## AOS1 – Set work – Eine Kleine Nachtmusik – 'Minuet: Section B – Bars 9 – 16

**Compositional device**  
Anacrusis: Violins 1 and 2 play a sequence in octaves

**Dynamics**  
Crescendo: gradually getting louder  
Piano = Soft/quiet then forte - Loud

**Double stopping**  
Violins stop playing in octaves

**Articulation - Staccato**  
in all instruments

This section is in G major - with a brief modulation to **relative minor** (first 2 bars of this section) and the **dominant** (bars 3 and 4 of this section)

| First 4 bars   | Last 4 bars  |
|--|--|
| Piano dynamics<br>Mostly quavers used<br>No double stopping used<br>No ornamentation<br>Thinner – two part texture (amongst others!) | Forte dynamics<br>Mostly crotchets used<br>Double stopping used in the viola<br>Ornamentation used (trills)<br>Thicker – 4 part texture (amongst others) |

## AOS1 – Unheard – Music for Ensemble

### Common Musical Forms

**BINARY:-** **AB** Two contrasting sections

**TERNARY:-** **ABA<sup>1</sup>** Three sections. A section, contrasting B section then a return of the A section (the return of A can often be slightly altered hence A<sup>1</sup>)

### Key terms

**Imitation** – snippet of melody is repeated in another instrument

**Syncopation** – Off beat

**Sequence** – snippet of melody repeated but moved up or down in pitch.

**Ostinato** – short snippet of musical material that is repeated throughout a piece or a section of a piece.

**Trill** – Musical ornament – moving very quickly between the note shown and the note above (click to hear an example)

### Baroque:-

- Long flowing melody lines.
- Polyphonic textures
- Listen for the harpsichord.
- With use of ornamentation (twidly bits)
- Terraced dynamics

### Classical:-

- Strong cadences.
- Shorter melodies.
- Clear cut structure with balanced q&a phrases.
- Violins commonly used for melody

### Romantic:-

- More dramatic use of dynamics. (eg quiet to suddenly very loud)
- Woodwind more commonly used for melody.
- Melodies can be longer and not as symmetrical.

### Tonality and Harmony (common answers)

- Cadences (most common – Perfect cadence at the end)
- Fast harmonic movement/slow harmonic movement (chords changing quickly/slowly)
- Diatonic harmony (most usual)
- Major and minor keys (specific the section)
- Modulations (has it changed key? Specific)

### Texture and Instrumentation (common answers)

- Monophonic/Polyphonic/Homophonic (also melody and accompaniment) Most common – Homophonic/melody and accompaniment.
- What instrument is playing the bass line?
- What instruments or instrumental sections are playing the different sections? Woodwind/strings?
- Who plays the final cadence? Full orchestra? Or specific sections?
- Instrumental techniques – Are any string instruments using

### General tips

- If you are given part of the written music- look for clues! Eg time sig, key sig...
- If they specifically say “do not repeat your answers from other qs” check this thoroughly.
- Use the silence given between questions! Read ahead, annotate possible answers in pencil if helpful
- Do not forget to use MusicFirst to support your revision <https://st-nicholas.musicfirst.co.uk/> remember the password is StMusic01 (You must use the capitals correctly)



## AOS3 - Film Music - Extended Question

|                                       |   |   |                            |
|---------------------------------------|---|---|----------------------------|
| <b>Remember:-</b>                     | Musical Features: Theme/story links –<br><b>70:30</b>   | Must have <b>story links</b> with the musical features. | Can write in bullet points |
| Comment in order, section by section. | First para – lots of initial obs (musical features) and one link. Comment specifically on Dynamics. instrumentation. texture. tonality and tempo. |   |                            |

### Heroes:-

Fanfares commonly used.

Melodies often use lots of 3rds/5ths and octaves and the melody/motif tends to rise in pitch.

Brass instruments – bright, strong sound – link to heroes.

Usually major key.

Usually builds up – in relation to texture/dynamics.

Instrumental techniques used for dramatic affect:- Cymbal crashes, drum rolls.

Make all comments on how things change and progress.

Does the **texture** get thicker? Do the **dynamics** get louder? Does the **pitch** get higher? Is there use of an **ostinato**? Is there use of **instrumental** techniques creating tension? For example **drum rolls**? **Cymbal Crashes**? What **instruments** have **motifs** (snippets of melody that are repeated)? Does it end on a **perfect cadence**? Does it end **loud** or **quietly**, **full orchestra** or just a **few instruments**?

**How does the above affect the story/theme – please make sure you say as you go along.**

## AOS4 - Set work - Since You've Been Gone - Bridge and Final Chorus.

### BRIDGE

Chord pattern:-

| Bar 1 | Bar 2 | Bar 3 | Bar 4   | Bar 5 |
|-------|-------|-------|---------|-------|
| G Am7 | G/B C | G/D B | Em G7/D | C Am7 |

### Rhythm

This section uses **TRIPLETS** which are not used in any other section of the song.

### Structure

This section is divided into two sections. The first would be called an instrumental.

### Melody

Melody is performed by the electric guitarist only at the beginning of the bridge.

**Instrument**  
The guitar improvises playing semiquaver arpeggios  
The piano plays **fast notes** and **arpeggios**.

**Texture**  
The texture of this section is melody and accompaniment.

**Rhythm**  
Syncopated vocal "uh" between beats 2 and 3 of the final bar of this section.

**Melody** - The electric guitar is now playing the melody an octave higher than the singer.

**Instrument** - The drum kit is quieter in the bridge section.

## Chorus 3:- How is Chorus 3 different from the previous Choruses?

|                              |                            |                                  |                          |                   |
|------------------------------|----------------------------|----------------------------------|--------------------------|-------------------|
| It is longer                 | In a higher key – A Major  | Guitar improvisation to the end. | Thicker                  | Different lyrics. |
| Ends with a perfect cadence. | The "oh" phrase is longer. |                                  | Vocal melody is changed. |                   |

# Polish Revision Sheet

## Your assessments will include:

- A **Listening** paper
- A **Reading** paper.
- A **Writing** paper.

To provide evidence for your **Speaking Accreditation**, you will also give a short presentation, and then answer a minimum of 2 questions in Polish. This does not form part of GCSE; it is a separate

## Themes of study

Theme 1: Identity and culture

Theme 2: Local, national, international and global areas of interest

Theme 3: Current and future study and employment

## You will find information about the course, including topics, vocabulary and past papers on the AQA website:

<https://www.aqa.org.uk/subjects/languages/gcse/polish-8688/introduction>

## Writing Paper

You will sit a GCSE Writing Paper made up of AQA GCSE questions.

You will sit the **Higher Paper**, will include:

- A 90 word task
- A 150 word task
- A translation.

## Reading Paper

You will sit a GCSE Reading Paper made up of AQA GCSE questions.

To help you to revise for this, Past Papers will be really useful! You can find these on the AQA website.

The paper is made up of questions in English, questions in Polish and a translation from Polish to English.

## Listening Paper

You will sit a GCSE Writing Paper made up of AQA GCSE questions.

You will sit the **Higher Paper**.

To help you to revise for this, Past Papers will be really useful. You can find these on the AQA website.

## Speaking Accreditation

In addition to your GCSE, you will receive a Speaking Accreditation. This is a separate qualification and does not form part of your GCSE.

The Speaking task will last approximately 3 minutes in total.

You will:

Present for 1 minute on the topic of **Healthy Living**.

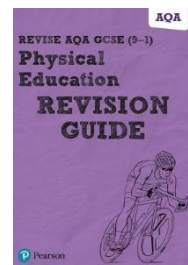
Answer at least 2 questions on the topic of **Free time**.

## Your assessments will take place on:

Tuesday 27<sup>th</sup>, Wednesday 28<sup>th</sup> and Thursday 29<sup>th</sup> April

Your **Speaking Accreditation** will also take place during the week beginning 26<sup>th</sup> April. You will be informed of an exact date and time.





***“Don’t count the days, make the days count” – Muhammad Ali***

We are really proud of how far you have come, now it’s down to you to do all you can to get yourself to the end of the race. Best of luck from the whole of Team PE.

| Thursday 29 <sup>th</sup> April- P3  | Wednesday 5 <sup>th</sup> May- P5   |
|--|---|
| <b>Paper 2 – 45 min – 42 marks:</b> <ul style="list-style-type: none"> <li>• Information processing</li> <li>• Types of feedback</li> <li>• Guidance methods</li> <li>• Fair play in sport</li> <li>• SMART targets</li> <li>• Skill and ability</li> <li>• Classification of skills</li> <li>• Arousal</li> <li>• Sponsorship</li> <li>• Diet, obesity and somatotyping</li> <li>• Levels and Barriers of participation rates – <i>Extended question</i></li> </ul> | <b>Combined Paper – 45 min – 40 marks</b> <ul style="list-style-type: none"> <li>• Bones</li> <li>• Types of movement</li> <li>• Lung volumes -spirometer trace</li> <li>• Altitude</li> <li>• Flexibility</li> <li>• Strength</li> <li>• The Heart structure and HR response to exercise</li> <li>• PEDS</li> <li>• Motivation</li> <li>• Aggression</li> <li>• Introvert</li> </ul> |

Don’t forget:

- All lessons are on Teams if you have any gaps in your notes
- Many different Revision Videos are on Teams
- You have the new AQA revision book
- Have a look on the AQA Website to look over some mark schemes

# Product Design (AQA)

- 45 minute paper

Remember:

- Always be specific with your answer (a specific wood e.g. beech or ash).
- Always use key words throughout and explain each answer fully
- Avoid generic answers e.g. cheap
- Remember if it says draw diagrams, draw diagrams! You will need a pencil and ruler.
- Bring a calculator – 10% of the exam is Maths based.

| Core Technical Principles (20% of exam)                 |   | RAG |
|---|---|-----|
|   | Sustainability: Finite, non-finite and disposal of waste  |     |
|   | Society: How to avoid negative impact on others.  |     |
|   | Environment: Continuous improvement, pollution, global warming, efficient working   |     |
|   | Production techniques and systems: automation, CAD, CAM   |     |
|   | Metals and Alloys: Ferrous, non-ferrous and Alloy categories<br>Low carbon steel, cast Iron, high carbon/tool steel, aluminum, copper, tin, zinc, brass, stainless steel, high speed steel.                               |     |
| Material Properties                                     | Absorbency (resistance to moisture), density, fusibility, electrical and thermal conductivity, Strength, Hardness, Toughness, Malleability, Ductility and Elasticity.   |     |
| Specialist Technical Principles (30% of exam)           |   |     |
| Selection of materials                                  | Should be able to select suitable woods considering the following factors: Functionality, Aesthetics, Environmental factors, Availability, Cost, Social factors, Cultural factors, Ethical factors                        |     |
| Ecological and social footprint                         | How deforestation affects society<br>Mileage of timber, from raw material source, manufacture, distribution, user location and final disposal.<br>That carbon is produced during the manufacture of products.             |     |
| Six R's   | Reduce, refuse, re-use, repair, recycle and rethink.  |     |
| Social Issues in the design and manufacture of products | Safe working conditions; reducing oceanic/ atmospheric pollution and reducing the detrimental (negative) impact on others.  |     |
| Using and working with materials                        | Using timber: traditional timber children's toys and flat pack furniture  |     |
| Stock Forms   | Planks, boards and standard mouldings, sold by length, width, thickness and diameter. Standard components eg woodscrews, hinges, KD fittings (Cam lock connectors, nut and barrel and modesty block).                     |     |
| Scales of Production                                    | How products using timber are produced in prototype, batch, mass and continuous production  |     |
| Wastage processes                                       | Turning, sawing, milling, drilling, routing   |     |
| Addition  | Lamination, joint.  |     |
| Surface treatments                                      | Painting, varnishing and tanalising   |     |
| Designing and Making principles (50% of exam)           |   |     |
| Research techniques                                     | Primary and Secondary data: Market research, interviews, human factors, focus groups, product analysis, anthropometric data   |     |
| Producing specification and brief                       | Students should consider their own needs, wants and interests and those of others.  |     |
| Environmental, social and economic challenge            | How environment, social and economic challenges that influence design and making. Specific areas: deforestation, possible increase in carbon dioxide levels leading to potential global warming, the need for fair trade. |     |
| Selection of materials and components                   | How to select materials considering functional need, cost, availability   |     |
| Specialist techniques and processes                     | How to select and use specialist techniques and processes appropriate for the material and/or task accurately.  |     |
| Surface treatments                                      | Why surface treatments are required and how to prepare a material for a treatment or finish. Need to know how to apply an appropriate surface treatment or finish.  |     |

# RE REVISION

As a department, we are incredibly proud of how hard you have continued to work this year. A huge thank you from us.

In the **first assessment window**, we will focus on the topic of **Judaism Beliefs and Teachings**.

This topic includes:

- The nature of the Almighty
- Shekinah
- Messiah
- The covenant at Sinai
- death
- The covenant of Abraham
- Sanctity of Life
- Moral principles and the Mitzvot
- Jewish beliefs about life after death



In the **second assessment window**, we will focus on the topics of **Roman Catholic Paper – Forms of Expression** and **Philosophy and Ethics – Relationships and Families in the twenty-first century**.

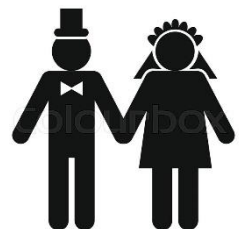
These topics include:

## **Forms of Expression**

- The architecture, design and decoration of Catholic Churches
- The different internal features of a Catholic Church
- The meaning and significance of sacred objects within Catholicism
- The meaning and significance of paintings, frescoes and drawing within Catholicism
- The means and significance of sculptures and statues
- The purpose and use of symbolism and imagery in religious art
- The meaning and significance of drama, mystery plays and passion plays
- The nature and use of traditional contemporary styles of music in worship

## **Relationships:**

- Marriage
- Homosexuality
- Sexual Relationships
- Families
- Support for family in the local parish
- Contraception
- Divorce and remarriage
- Equality of men and women in the family
- Gender prejudice and discrimination



## **Question Styles:**

Remember the exam technique you have been practicing throughout years 10 and 11.

**A questions**) 3 sentences outlining or stating – make sure you use 3 separate sentences.

**B questions**) 2 developed points. You can develop a point by explaining what it means, adding an example, explaining why it is important.

**C questions**) 2 developed points and **a source of wisdom**. Same as above, however one of the developed points needs to be supported by a source, this could be something from the Bible, Torah, Catechism, or something someone has said, for example Pope Francis.

**D questions**) You **must argue and evaluate** the arguments **for both sides**. State why someone agrees/disagrees and then evaluate the strength of these arguments. Do the same for the other side and then add a conclusion where you say which side you think wins the argument and why.

**Evaluative Language:** Strong/weak, Logical/Illogical, Flawed, Recognises/fails to recognise, Convincing/unconvincing, Necessary/unnecessary



# Spanish Revision Sheet



## Your assessments will include:

-A **Reading** paper.

-A **Writing** paper.

Although there are just two assessments, these will be spread over **3 x 45 minute sessions**.

To provide evidence for your Speaking Accreditation, you will also give a short presentation, and then answer 2 questions in Spanish, with your teacher. This does not form part of GCSE; it is a separate

## Writing Paper

You will sit a GCSE Writing Paper made up of AQA GCSE questions.

-----  
The **Foundation Paper** will include:

-A photocard, 40 word task, 90 word task, translation.

The 40 word task will be on the topic of **school**

The 90 word task will be on the topic of **the world of work and future plans**

-----  
The **Higher Paper** will include:

-A 90 word task, a 150 word task, translation.

The 90 word task will be on the topic of **the world of work and future plans**

The 150 word task will be on the topic of **school and money**

-----  
Your teacher will look at these topics with you in class, but **it is vital that you revise these topics at home, too!**

## Reading Paper

You will sit a GCSE Reading Paper made up of AQA GCSE questions.

To help you to revise for this, Past Papers and Memrise will be really useful tools!

The paper is made up of questions in English, questions in Spanish and a translation from Spanish to English.

## Speaking Accreditation

In addition to your GCSE, you will receive a Speaking Accreditation. This is a separate qualification and does not form part of your GCSE.

The Speaking task will last approximately 3 minutes in total.

You will:

Present for 1 minute on the topic of **school**

Answer at least 2 questions from your teacher on the topic of **the world of work**

Your teacher will help you to prepare these in lessons, **but it is essential that you practise them**. You will not have notes in the assessment.

## Your assessment will take place on:

Tues 18<sup>th</sup> May (Period 3)– **Foundation** – (Reading Paper) **Higher** – (Reading paper, minus last questions)

Thurs 20<sup>th</sup> May (Period 3)- **Foundation** – (Photocard and 90 word task) **Higher** – (Last 2 Questions, 90 Word Task, translation)

Fri 21<sup>st</sup> May (Period 1) - **Foundation** – (40 word task and translation) **Higher** – (150 word task)

Your **Speaking Accreditation** will take place during the week beginning Monday 26<sup>th</sup> April. Your teacher will provide you with an exact date and time.

## GCSE Combined Science Biology Assessment – Foundation Tier

### **B10 The Nervous System**

- I should be able to explain that homeostasis is the regulation of the internal conditions of a cell or organism to maintain optimum conditions for function in response to internal and external changes. In the human body this includes the control of • blood glucose concentration • body temperature • water levels.
- I should understand how a reflex arc works
- I should be able to plan and carry out an investigation into the effect of a factor on human reaction time (Required Practical)

### **B11 The Endocrine System (Hormones)**

- I should be able to identify the position of the following on a diagram of the human body:
  - pituitary gland • pancreas • thyroid • adrenal gland • ovary • testes.
- I should be able to evaluate the different hormonal and non-hormonal methods of contraception.
- I should understand the causes and treatments of diabetes
- I should be able to evaluate information around the relationship between obesity and diabetes, and make recommendations taking into account social and ethical issues.

### **B13 Inheritance**

- I should know that sexual reproduction involves the joining (fusion) of male and female gametes:
  - sperm and egg cells in animals
  - pollen and egg cells in flowering plants.
- I should know that in sexual reproduction there is mixing of genetic information which leads to variety in the offspring. The formation of gametes involves meiosis.
- I should be able to carry out a genetic cross to show sex inheritance.

### **B14 and B15 Evolution**

- I should be able to describe how fossils can be formed
- I should be able to extract and interpret information from charts, graphs and tables such as those relating to extinction
- I should be able to explain the causes of extinction
- I should appreciate why the fossil record is incomplete
- I should be able to describe the evidence for evolution including fossils and understand the theory of evolution by natural selection is now widely accepted.
- I should be able to describe the evidence for Darwin's theory

### **B10 The Nervous System**

- I should understand how a reflex arc works
- I should be able to plan and carry out an investigation into the effect of a factor on human reaction time (Required Practical)

### **B11 The Endocrine System (Hormones)**

- I should be able to identify the position of the following on a diagram of the human body:
  - pituitary gland • pancreas • thyroid • adrenal gland • ovary • testes.
- I should be able to describe the gland and target organ of the hormones LH, adrenaline and glucagon

### **B13 Inheritance**

- I should be able to carry out a genetic cross to show sex inheritance.
- (HT only) I should be able to construct a genetic cross by Punnett square diagram and use it to make predictions using the theory of probability.
- I should recall some disorders are inherited. These disorders are caused by the inheritance of certain alleles such as Cystic fibrosis (a disorder of cell membranes) which is caused by a recessive allele.
- I should be able to make informed judgements about the economic, social and ethical issues concerning embryo screening, given appropriate information.
- I should be able to explain how meiosis halves the number of chromosomes in gametes and fertilisation restores the full number of chromosomes.
- I should know that cells in reproductive organs divide by meiosis to form gametes and when a cell divides to form gametes:
  - copies of the genetic information are made
  - the cell divides twice to form four gametes, each with a single set of chromosomes
  - all gametes are genetically different from each other

### **B14 and B15 Evolution**

- I should be able to name groups in the 'three-domain system' developed by Carl Woese. In this system organisms are divided into:
  - Archaea (primitive bacteria usually living in extreme environments)
  - Bacteria (true bacteria)
  - Eukaryota (which includes protists, fungi, plants and animals).
- I should be able to extract and interpret information from charts, graphs and tables such as those showing extinctions

### **B10 The Nervous System**

- I can recall that the brain controls complex behaviour. It is made of billions of interconnected neurones and has different regions that carry out different functions.
- I should be able to identify the cerebral cortex, cerebellum and medulla on a diagram of the brain, and describe their functions.
- I should be able to explain some of the difficulties of investigating brain function and treating brain damage and disease.
- I should recall that neuroscientists have been able to map the regions of the brain to particular functions by studying patients with brain damage, electrically stimulating different parts of the brain and using MRI scanning techniques. The complexity and delicacy of the brain makes investigating and treating brain disorders very difficult.
- I should be able to relate the structures of the eye to their functions.
- I should recall that the eye is a sense organ containing receptors sensitive to light intensity and colour.

### **B11 The Endocrine System (Hormones)**

- I should recall that plants produce hormones to coordinate and control growth and responses to light (phototropism) and gravity (gravitropism or geotropism).
- I should recall that unequal distributions of auxin cause unequal growth rates in plant roots and shoots. (HT only)
- I should recall that Gibberellins are important in initiating seed germination and ethene controls cell division and ripening of fruits
- Required practical activity 8: investigate the effect of light or gravity on the growth of newly germinated seedlings.

### **B10 The Nervous System**

- I can recall that the brain controls complex behaviour. It is made of billions of interconnected neurones and has different regions that carry out different functions.
- I should be able to identify the cerebral cortex, cerebellum and medulla on a diagram of the brain, and describe their functions.
- I should be able to explain some of the difficulties of investigating brain function and treating brain damage and disease.
- I should recall that neuroscientists have been able to map the regions of the brain to particular functions by studying patients with brain damage, electrically stimulating different parts of the brain and using MRI scanning techniques. The complexity and delicacy of the brain makes investigating and treating brain disorders very difficult.
- I should be able to relate the structures of the eye to their functions.
- I should recall that the eye is a sense organ containing receptors sensitive to light intensity and colour.

### **B2 and B13 Genetics, Cell Division and Inheritance**

- I should be able to describe the structure of DNA and define genome.
- I should be able to interpret a diagram of DNA structure

- I should be able to describe DNA as a polymer made from four different nucleotides. Each nucleotide consists of a common sugar and phosphate group with one of four different bases attached to the sugar. DNA contains four bases, A, C, G and T. A sequence of three bases is the code for a particular amino acid. The order of bases controls the order in which amino acids are assembled to produce a particular protein. The long strands of DNA consist of alternating sugar and phosphate sections. Attached to each sugar is one of the four bases. The DNA polymer is made up of repeating nucleotide units
- I should recall the genetic material in the nucleus of a cell is composed of a chemical called DNA. DNA is a polymer made up of two strands forming a double helix. The DNA is contained in structures called chromosomes.
- I should be able to discuss the importance of understanding the human genome.
- I should recall that cells divide in a series of stages called the cell cycle.
- I should be able to describe the stages of the cell cycle, including mitosis. During the cell cycle the genetic material is doubled and then divided into two identical cells. Before a cell can divide it needs to grow and increase the number of sub-cellular structures such as ribosomes and mitochondria. The DNA replicates to form two copies of each chromosome. In mitosis one set of chromosomes is pulled to each end of the cell and the nucleus divides. Finally the cytoplasm and cell membranes divide to form two identical cells.
- I should be able to explain how meiosis halves the number of chromosomes in gametes and fertilisation restores the full number of chromosomes. Cells in reproductive organs divide by meiosis to form gametes. When a cell divides to form gametes: • copies of the genetic information are made • the cell divides twice to form four gametes, each with a single set of chromosomes • all gametes are genetically different from each other.
- I should be able to complete a Punnett square diagram and extract and interpret information from genetic crosses and family trees
- I should be able to construct a genetic cross by Punnett square diagram and use it to make predictions using the theory of probability



# Chemistry - Combined Science

## C8 - Rates and Equilibrium

- o Calculate rates of reaction (There are two equations to learn as well as units).
- o Collision theory (What must particles do to successfully react?).
- o Describe and explain why the rate of a reaction starts fast, then slows down over time, and then stops.
- o Be able to explain how surface area affects rate.
- o Be able to explain how temperature affects rate.
- o Be able to explain how concentration affects rate.
- o Be able to explain how pressure affects rate.
- o Be able to explain how a catalyst affects rate.
- o Plan an investigation to see how a factor affects rate (Loss of mass / syringe / disappearing cross).
- o Identify the independent, dependent and control variables in an investigation.
- o Read a volume from a syringe.
- o Plot points on a line graph and draw a line of best fit.
- o Reversible reactions (Definition of a reversible reaction. If forward reaction is exothermic then reverse is endothermic).
- o Dynamic equilibrium (How is dynamic equilibrium achieved?).
- o **HIGHER TIER: Altering conditions (explain how changing concentration / temperature / pressure shifts equilibrium).**

## C9 - Crude Oil and Fuels

- o How crude oil is made.
- o Definition of a hydrocarbon.
- o Alkanes (Draw structure and write molecular formula for methane, ethane, propane and butane).
- o General formula of alkanes.
- o Explain the trends in boiling point, volatility, viscosity, and flammability as hydrocarbons get longer.
- o Uses of fractions of crude oil (LPG, petrol, kerosene, diesel, residue).
- o How crude oil is separated into fractions by fractional distillation in a fractionating column.
- o Complete combustion of alkanes (Enough oxygen. What are the products? Write a balanced symbol equation.).
- o Incomplete combustion of alkanes (Not enough oxygen. What are the products? Write a balanced symbol equation.).
- o Cracking alkanes (How is it done? Why is it done?).
- o Determine a missing product in a symbol equation for cracking an alkane.
- o How to test for alkenes (unsaturated hydrocarbons) by testing with bromine water (What is the colour change?).

## C12 - Chemical Analysis

- Definition of a pure substance. State some examples of pure substances.
- Definition of a mixture. State some examples of mixtures.
- Definition of a formulation.
- How to identify the melting point / boiling point of a substance from a graph.
- How to determine if a substance is pure from a graph (does it have a precise melting point?).
- How to use melting point data to identify a substance.
- How chromatography separates substances.
- How to form conclusions from a chromatogram (Is it pure or a mixture? How many substances in the mixture?).
- Calculate an  $R_f$  value from a chromatogram.
- How to use an  $R_f$  value to identify a substance.
- How do you test for hydrogen, oxygen, carbon dioxide and chlorine? What observations will you have for a positive test for each gas?

# Chemistry Separate Science

## Unit C8 Rates and chemical change

I can plot and use a graph to calculate the gradient to measure the initial rate of reaction.

I can justify a chosen method for a given reaction to monitor the rate of reaction.

I can explain why there is more than one unit for rate of reaction.

I can use collision theory to explain in detail how increasing surface area increases the rate of reaction.

I can use a graph to calculate the rate of reaction at specific times in a chemical reaction.

I can explain why many collisions do not lead to a chemical reaction.

I can use a graph to calculate the rate of reaction at specific times in a chemical reaction.

I can calculate  $(1/t)$  and plot a graph with a more meaningful line of best fit.

I can interpret a rate of reaction graph, including calculating the rate of reaction at specific times in a chemical reaction.

I can explain why changing pressure has no effect on the rate of reaction for some reactions.

I can justify quantitative predictions and evaluate in detail their investigation into the effect of concentration on rate of reaction.

I can use a reaction profile diagram to explain in detail the effect of adding a catalyst.

I can justify the use of catalysts in industry and in household products.

I can explain what an enzyme is and how it works.

## UNIT C9 CRUDE OIL AND FUELS

I can explain why fractional distillation is used to separate crude oil into fractions.

I can apply a general formula to generate a molecular formula and a displayed formula for a straight-chain alkane.

I can classify and justify the classification of a chemical as an alkane.

I can explain in detail how fractional distillation is used to separate crude oil into fractions.

I can explain how chain length affects the properties of crude oil fractions.

I can make predictions about the properties of crude oil fractions from the fraction's hydrocarbon chain length.

I can justify the use of a given fuel over another.

I can explain in detail how the production of carbon monoxide in incomplete combustion can be lethal.

I can use balanced symbol equations to calculate amounts of reactants or products in a combustion reaction.

|  |  |
|--|--|
| <p>I can use examples to explain the process of cracking and why it is so important to the petrochemical industry.</p> <p>I can explain the similarities and differences between alkanes and alkenes.</p> <p>I can explain, using balanced symbol equations, the reaction between bromine water and an alkene.</p>   |  |
| <b>C12 CHEMICAL ANALYSIS</b>   |  |
| <p>I can justify the classification of pure substances, impure substances, and formulations when data is supplied.</p> <p>I can explain in detail the use of formulations.</p> <p>I can calculate percentage compositions of components in a range of formulations.</p> <p>I can explain why different substances and different conditions will have different <math>R_f</math> values.</p> <p>I can calculate <math>R_f</math> values from a chromatogram, using an appropriate number of significant figures.</p> <p>I can interpret a chromatogram to identify unknown substances.</p> <p>I can write balanced symbol equations, including state symbols, for the reactions of limewater with carbon dioxide and hydrogen with oxygen.</p> <p>I can explain why a glowing splint re-ignites in oxygen.</p> <p>I can explain why chlorine gas turns damp indicator paper colourless.</p> <p>I can identify a metal ion from the colour of a flame or the colour of the hydroxide precipitate.</p> <p>I can write balanced symbol equations, including state symbols, for the production of an insoluble metal hydroxide.</p> <p>I can explain why a flame test cannot be used to identify a mixture of metal solutions.</p> <p>I can identify the presence of carbonate, a specific halide, or sulfate ions from simple laboratory tests.</p> <p>I can write balanced symbol equations, including state symbols for reactions in the simple laboratory tests for carbonate, halide, or sulfate ions.</p> <p>I can explain why it can be difficult to identify halides using this method.</p> |  |

You have been emailed with a link to a OneDrive folder called 'GCSE Science - Student resources'. Open the Chemistry folder within this folder and use the topic folders C8 C9 and C12 to revise for your mock exams. There are revision notes and videos for each topic. Use these along with exercise books, revision guides and YouTube videos (search AQA GCSE chemistry - and then the topic you need to revise).

# Physics - Combined Science

## Y11 Combined Science Physics Revision List

| Unit P12 Wave Properties   |  |
|--|--|
| I can explain the difference between transverse and longitudinal waves.  |  |
| I can give examples of transverse and longitudinal waves.  |  |
| I can label the areas of compression and rarefaction on a longitudinal wave and clearly mark the wavelength.                                 |  |
| I can label a transverse wave to show the amplitude, wavelength and time period.   |  |
| I can recall the definitions of amplitude, displacement, time period and frequency.  |  |
| I can use the equation $f=1/T$ recalling that the units for frequency are Hertz (Hz)   |  |
| I can recall the wave equation $v=f \times \lambda$ where $v$ is wave speed in m/s, $f$ is frequency in Hz and $\lambda$ is wavelength in m. |  |
| I can rearrange the above equation to work out unknown quantities.   |  |
| I can describe a method to determine the speed of sound in air.  |  |
| <i>Required Practical: I can describe a method to determine the speed of water waves using a ripple tank.</i>                                |  |
| <i>Required Practical: I can describe a method to determine the speed of waves on a string/rope.</i>   |  |

| Unit P13 Electromagnetic Waves   |  |
|--|--|
| I can recall that electromagnetic waves are all transverse waves that travel at the same speed through a vacuum.   |  |
| I can recall that all electromagnetic waves can be reflected, refracted and diffracted.  |  |
| I can recall the electromagnetic spectrum and state which waves have the highest/lowest frequency/wavelength and energy.   |  |
| I can describe the dangers associated with over-exposure to particular types of e-m wave.  |  |
| I can describe the uses and applications of each type of electromagnetic wave.   |  |
| I can draw a ray diagram to demonstrate the refraction of a wave as it crosses a boundary between two different media.   |  |
| <i>Required Practical: I can describe a method to investigate the amount of infrared radiation emitted from different surfaces (e.g. Leslie cube or different coloured cans)</i> |  |
| I can recall that different substances will reflect, refract, transmit and absorb electromagnetic waves dependent on their wavelength. (HT ONLY)                                 |  |
| I can explain the concept of refraction in relation to the changing in velocity of a wave as it enters a different medium. (HT ONLY)   |  |

|  |  |
|--|--|
| I can recall that radio waves can be produced through oscillations in circuits. <b>(HT ONLY)</b>   |  |
| I can explain that radio waves when absorbed by a conducting material can cause an alternating current with the same frequency of the radio waves absorbed. <b>(HT ONLY)</b> |  |
| I can explain why certain electromagnetic waves are suitable for particular uses and applications. <b>(HT ONLY)</b>  |  |

| Unit P15 Electromagnetism  |  |
|--|--|
| I can recall that a magnet has two poles called North and South and this is where the magnetic field strength is strongest.  |  |
| I can recall that two poles that are the same will exert a repulsive non-contact force on each other and that two different poles will experience an attractive non-contact force.                 |  |
| I can explain the difference between a permanent magnet and an induced magnet.   |  |
| I can recall that induced magnetism will always cause an attractive force and that when an induced magnet is removed from a magnetic field it loses its magnetism.                                 |  |
| I know that the three magnetic materials are iron, nickel and cobalt.  |  |
| I know that the area around a magnet is known as the magnetic field and that the strength varies as the distance does.   |  |
| I can draw the magnetic field around a bar magnet and know that magnetic field lines always flow from the north pole to the south pole.  |  |
| I can recall that a compass needle contains a small bar magnet that aligns with the Earth's magnetic field. Plotting compasses can be used to draw the magnetic field around a bar magnet.         |  |
| I can recall that when a current flows through a wire a magnetic field is produced around that wire and the direction can be determined using the right hand screw rule.                           |  |
| I can recall that the strength of the magnetic field around a current carrying wire varies with the distance and with the current flowing through it.  |  |
| I know that the term for a coiled piece of wire is a solenoid and that a solenoid has a strong uniform magnetic field inside it and that the field around the outside is the same as a bar magnet. |  |
| I know that adding an iron core inside of a solenoid is known as an electromagnet and this has a stronger magnetic field than a solenoid alone.  |  |
| I know that when a conductor carrying an electrical current is placed in a magnetic field it experiences a force and that this is known as the motor effect. <b>(HT ONLY)</b>                      |  |
| I can use Fleming's left hand rule to determine the direction of the force acting on a wire. <b>(HT ONLY)</b>  |  |
| I can recall that the force on a wire can be increased by increasing the current, magnetic flux density and the number of coils (length) of wire. <b>(HT ONLY)</b>                                 |  |
| I can calculate the force on a wire using the equation $F = B I l$ as well as rearrange the equation to find unknown quantities in appropriate units. <b>(HT ONLY)</b>                             |  |
| I can describe the basic set up of a motor and explain why the motor rotates and state the need for a split ring commutator. <b>(HT ONLY)</b>  |  |

# **Physics - Separate Science**

## **Y11 Separate Physics Revision List Unit P12 Wave Properties & P14 Light**

- I can explain the difference between transverse and longitudinal waves.
- I can give examples of transverse and longitudinal waves.
- I can label the areas of compression and rarefaction on a longitudinal wave and clearly mark the wavelength.
- I can label a transverse wave to show the amplitude, wavelength and time period.
- I can recall the definitions of amplitude, displacement, time period and frequency.
- I can use the equation  $f=1/T$  recalling that the units for frequency are Hertz (Hz)
- I can recall the wave equation  $v=f \times \lambda$  where  $v$  is wave speed in m/s,  $f$  is frequency in Hz and  $\lambda$  is wavelength in m.
- I can rearrange the above equation to work out unknown quantities.
- I can describe a method to determine the speed of sound in air.
- Required Practical: I can describe a method to determine the speed of water waves using a ripple tank.
- Required Practical: I can describe a method to determine the speed of waves on a string/rope.
- I can recall the law of reflection and understand that waves can be absorbed, transmitted or reflected at a boundary.
- Required Practical: I can describe a method to investigate the law of reflection (light reflecting off a mirror)
- Required Practical: I can describe a method to investigate the refraction of light through a glass block.
- I can recall that sound waves are longitudinal waves and are caused by the vibration of particles. The human hearing range is 20Hz - 20,000Hz.
- I understand that ultrasound waves are sound waves about 20,000Hz that humans cannot hear.
- Ultrasound waves can be transmitted and partially reflected back from different substances to determine the depth or distance of the substance and can be used to form an image. Echo sounding can be used to determine the depth of bodies of water.
- Seismic waves are waves from an earthquake and consist of P-waves (primary or pressure) which are longitudinal and S waves (secondary or shear) that are transverse.
- I understand the difference between convex (converging) and concave (diverging) lenses.
- I can remember that the focal length of a lens is the distance from the centre of the lens to the principal focus (the point at which light converges at a point).
- I can draw ray diagrams using convex and concave lenses and can describe whether the image is virtual/real, diminished/magnified, inverted/upright.
- I can calculate the magnification of a lens by using the formula (image height)/(object height)
- I can state the difference between specular and diffuse reflection
- I can explain how colour filters work in that they absorb certain colours and transmit others. By the same principle objects that appear red reflect red light and absorb all other colours.
- I can describe that white light is made up of a spectrum of colours and that these different colours have different wavelengths.

## **Unit P13 Electromagnetic Waves**

- I can recall that electromagnetic waves are all transverse waves that travel at the same speed through a vacuum.
- I can recall that all electromagnetic waves can be reflected, refracted and diffracted.
- I can recall the electromagnetic spectrum and state which waves have the highest/lowest frequency/wavelength and energy.
- I can describe the dangers associated with over-exposure to particular types of e-m wave.
- I can describe the uses and applications of each type of electromagnetic wave.
- I can draw a ray diagram to demonstrate the refraction of a wave as it crosses a boundary between two different media.
- Required Practical: I can describe a method to investigate the amount of infrared radiation emitted from different surfaces (e.g. Leslie cube or different coloured cans)
- I can recall that different substances will reflect, refract, transmit and absorb electromagnetic waves dependent on their wavelength.

- I can explain the concept of refraction in relation to the changing in velocity of a wave as it enters a different medium.
- I can recall that radio waves can be produced through oscillations in circuits.
- I can explain that radio waves when absorbed by a conducting material can cause an alternating current with the same frequency of the radio waves absorbed.
- I can explain why certain electromagnetic waves are suitable for particular uses and applications.

### **Unit P15 Electromagnetism**

- I can recall that a magnet has two poles called North and South and this is where the magnetic field strength is strongest.
- I can recall that two poles that are the same will exert a repulsive non-contact force on each other and that two different poles will experience an attractive non-contact force.
- I can explain the difference between a permanent magnet and an induced magnet.
- I can recall that induced magnetism will always cause an attractive force and that when an induced magnet is removed from a magnetic field it loses its magnetism.
- I know that the three magnetic materials are iron, nickel and cobalt.
- I know that the area around a magnet is known as the magnetic field and that the strength varies as the distance does.
- I can draw the magnetic field around a bar magnet and know that magnetic field lines always flow from the north pole to the south pole.
- I can recall that a compass needle contains a small bar magnet that aligns with the Earth's magnetic field. Plotting compasses can be used to draw the magnetic field around a bar magnet.
- I can recall that when a current flows through a wire a magnetic field is produced around that wire and the direction can be determined using the right hand screw rule.
- I can recall that the strength of the magnetic field around a current carrying wire varies with the distance and with the current flowing through it.
- I know that the term for a coiled piece of wire is a solenoid and that a solenoid has a strong uniform magnetic field inside it and that the field around the outside is the same as a bar magnet.
- I know that adding an iron core inside of a solenoid is known as an electromagnet and this has a stronger magnetic field than a solenoid alone.
- I know that when a conductor carrying an electrical current is placed in a magnetic field it experiences a force and that this is known as the motor effect.
- I can use Fleming's left hand rule to determine the direction of the force acting on a wire.
- I can recall that the force on a wire can be increased by increasing the current, magnetic flux density and the number of coils (length) of wire.
- I can calculate the force on a wire using the equation  $F = B I l$  as well as rearrange the equation to find unknown quantities in appropriate units.
- I can describe the basic set up of a motor and explain why the motor rotates and state the need for a split ring commutator.
- I can explain how the motor effect is utilised in loudspeakers and describe how loudspeakers work.
- I can explain that if a conductor moves in a magnetic field a voltage is induced across the conductor and in a complete circuit a current will flow. This is known as electromagnetic induction or the generator effect.
- I can describe the basic set up for a generator/alternator and explain that by increasing the speed of movement, the number of coils or the size of the magnet a larger current will be induced.
- I can explain how an alternator (AC) and a dynamo work (DC).
- I can explain how microphones utilise the generator effect to convert a pressure wave into an electrical signal.
- I can describe the structure of a transformer making use of the terms primary and secondary coils and potential difference.
- I can explain how an alternating potential difference in the primary coil, causes an alternating magnetic field in the iron core which subsequently induces an alternating potential difference in the secondary coil and an alternating current.
- I can use and apply the equation  $V_p N_s = V_s N_p$
- I can recall that if transformers are 100% power efficient then and I can use and manipulate this equation  $V_p I_p = V_s I_s$

# **Revision**

## **Why is it important to revise?**

- Revision helps learning.
- Revision increases your achievement in tests.
- Achievement in tests give you wider choices later on.
- Achievement will make everyone proud of you!
- You will feel great!



## **How to revise?**

- Make sure you know when your assessments are.
- Make yourself a revision timetable. Use the Adapt App to help.
- Revise for 25-45 minutes at a time and have breaks in between.
- Revise in a well-lit and quiet room.
- Ban the television when you revise and hide your phone, no distractions.
- Background music often helps, Mrs Pardoe recommends listening to people playing the piano. Avoid lyrics otherwise you will get confused between what you are hearing and what you are reading.
- Find a revision technique that works for you, this could be:
  - Mind maps
  - Revision cards
  - Audio recordings (great for languages)
  - Diagrams
  - Timelines (for history)
  - Chars and flowcharts (for processes)
  - Colours and highlighters
- Start revision with the stuff you find hard, don't just revise the stuff you know.
- Eat plenty of fresh fruit, drink water and eat fish to help your brain!
- Reward yourself - plan little treats for when you finish your revision



