

REVISION TOPICS FOR YEAR 10

Art & Design Fine Art

During the exam pupils will create a practical response to their current unit of work, NATURAL AND CONSTRUCTED FORM that 'realises intentions' (Assessment Objective 4). The following preparation is necessary:

- A CLEAR UNDERSTANDING OF ASSESSMENT OBJECTIVES.
- A CLEAR UNDERSTANDING OF HOW TO DEVELOP A SUCCESSFUL PROJECT
- Independent artist research linked to assessment objectives. (AO1)
- Ongoing media studies and development of ideas. (AO2)
- Ongoing recording of ideas – drawing, photography, 2D, 3D, digital work (AO3)
- Ongoing development of drawing techniques to improving skill level, linked to all assessment objectives.

The outcome of the exam (AO4) is combined with Assessment Objectives 1 to 3 (preparation) for the overall grade.

Art & Design Graphics

During the exam pupils will create a practical response to their current unit of work, BUDDY BURST. The outcome must respond to the brief and 'realise intentions' (Assessment Objective 4). The following preparation is necessary:

- A CLEAR UNDERSTANDING OF ASSESSMENT OBJECTIVES.
- A CLEAR UNDERSTANDING OF HOW TO DEVELOP A SUCCESSFUL PROJECT
- Independent artist and product-based research linked to assessment objectives. (AO1)
- Ongoing media studies and development of ideas. (AO2)
- Ongoing recording of ideas – drawing, photography, 2D, 3D, digital work (AO3)
- Ongoing development of digital techniques to improving skill level, linked to all assessment objectives.

The outcome of the exam (AO4) is combined with Assessment Objectives 1 to 3 (preparation) for the overall grade.

Biology

B1 Key Concepts in Biology

B2 Cells and Control

B3 Genetics

B4 Natural Selection and Genetic Modification

B5 Health, Disease and the Development of Medicines.

Students should refer to the yellow specification booklet they were provided with at the start of the year to identify all information contained within each of the GCSE topics mentioned above.

Chemistry

The GCSE course (Edexcel 1-9) was started in Year 9. The topics examinable in the End of Year exam are all those covered so far:

- ATOMIC STRUCTURE
- PERIODIC TABLE & BALANCING EQUATIONS
- WRITING FORMULA, ATMOSPHERE & CLIMATE CHANGE
- OBTAINING AND USING METALS
- ACIDS
- STATES OF MATTER, MOLES AND SEPARATION TECHNIQUES
- RATES OF REACTION
- BONDING AND ENERGY
- FUELS, CRUDE OIL, CRACKING AND POLLUTION
- STRUCTURES AND LIMITING REAGENTS
- Reversible REACTIONS

This relates to the following parts of the specification

1.1-1.53, 2.1-2.12, 3.1-3.21*, 4.1-4.12, 4.13-4.17, 6.1-6.16, 7.1-7.16, 8.1-8.26, 9.10C-9.20C,

* higher level content in this section will not be assessed in Year 10

Classical Civilisation

Myth and Religion:

- **Topic 1:** The gods - identifying the gods using their iconography, knowing why and how they were important, explaining their anthropomorphic nature.
- **Topic 2: Universal Hero** - Heracles / Hercules
- **Topic 3: Religion and the City** - Sanctuaries, Temples, Priests, Sacrifices
- **Topic 4: Foundation Stories** - Erectheion, Athena and Poseidon, Theseus, Aeneas, Romulus and Remus
- **Topic 5: Festivals** - PanAthenaia, City Dionysia, Lupercalia, Saturnalia
- **Topic 6: Myth and Symbols of Power**

You should know the **prescribed sources** under each topic and expect to answer questions on them

Computing

Section 1

- Iterating through a 2 d array
- Algorithms and pseudocode
- Insertion, bubble sort
- Binary and Linear Search
- Data representation converting hex, binary and addition of binary numbers

Section 2

- Client Server and peer to peer networks
- Protocols and layers
- Network topologies
- Wired and Wireless Networks
- Section 3 machine architecture
- RAM and ROM
- Fetch Decode Execute Cycle
- Embedded Systems
- Storage devices and media

DT

Time allowed: 2 hours

The paper is divided into three sections as follows:

- Section A Core technical principles (20 marks)
- Section B Specialist technical principles (30 marks)
- Section C Designing and making principles (50 marks)

The maximum mark for the paper is 100

Equipment needed:

- Black or blue pen, HB pencil, scientific calculator

Areas to be covered in the examination:

- Light dependent resistors (LDRs) and other electronic components
- Crowdfunding, Fairtrade, Co-operatives
- Types of forces such as tension, torsion, bending etc.
- Hardwoods: properties and applications
- Thermosetting plastics: properties and applications
- Metals and alloys: properties and applications
- Flexible manufacturing processes used in industry
- Mechanisms: gears, levers etc.
- Classification and applications of smart materials such as thermo-colour pigments etc.
- Renewable forms of energy such as biomass, solar, tidal etc.
- Applications and properties of laminated carton board and other sheet and board materials
- Stock forms of metal, polymer and timber-based products
- Ways in which materials (the three categories mentioned above) can be reinforced, strengthened or stabilized to make them more useful in product manufacturing situations
- Mass production processes: sand casting, vacuum forming, wood turning etc.

- Social, moral and ethical impact of material selection (in product design) on society
- The environmental impact and aesthetic qualities of everyday household products
- Use of anthropometric data and ergonomics in product design
- Computer aided design (CAD) models and how CAD can be linked to computer aided manufacturing (CAM) applications such as laser cutters and CNC lathes, milling machines
- Design specifications
- Workshop safety
- Finishes
- Design movements

Applied mathematical questions (approximately 15% of the overall DT paper)

English Language

The exam will be a full AQA English Language Paper 2 paper: Writers' Viewpoints and Perspectives.

1 hour and 45 minutes.

Section A - Reading, 50 minutes

Question 1 - Choose the four correct statements.

Question 2 - Summary of the differences between two texts.

Question 3 - How the writer uses language in one text to a particular effect.

Question 4 - Comparison of the writers' attitudes in both texts, including method analysis.

Section B - Writing, 50 minutes

Writing an article, letter or speech based on a given prompt. Students should write to persuade using a range of rhetorical devices.

English Literature

The exam will be based on AQA English Literature Paper 2, Modern Texts and Poetry but will not include Unseen Poetry.

Students will complete one 45 minute essay on *An Inspector Calls* and so should equip themselves with a range of memorised quotations relevant to key characters and themes. They should also revise the relevant historical context of the play.

Students will then complete a second 45 minute comparative essay on two poems from the Power and Conflict anthology that they have studied so far. They will be given the first poem but will need to choose a poem to compare it with from memory. They should therefore memorise quotations from a range of different poems that could apply to different themes as well as key contextual information.

French

- relationships with family and friends
- marriage and partnership
- social media
- mobile technology
- music cinema and TV
- Food and eating out
- Sport
- France customs and festivals
- home and where I live

Geography

- Geology of the UK
- Coasts
- Rivers
- Urban Geography of the UK and Birmingham

These are the general topics that will be examined, but please note that more detailed guidance will be given closer to the exams.

German

Students should revise the topics below for the End of Year exam. Students can access the **Kerboodle Textbook** online (institution code: SO4) and all vocabulary lists on Quizlet: <https://quizlet.com/MrsJavaid/folders/gcse-german-kerboodle/sets>

The 'Test and Revise' sections in the textbook are very useful for revision. Also, the Y10 VLE site run by Mr Balaam.

Theme and unit	Grammar
Key Stage 3 revision	<ul style="list-style-type: none"> Nouns, articles, cases, verbs, numbers and dates
Theme 1 Unit 1.1 F In meiner Familie	<ul style="list-style-type: none"> Using regular and irregular verbs in the present tense Reflexive verbs and separable verbs
Unit 1.1 H Beziehungen zu Familie und Freunden	<ul style="list-style-type: none"> Using reflexive verbs Possessive adjectives
Unit 1.2 F Heiraten oder nicht?	<ul style="list-style-type: none"> Using the future tense Using <i>wollen</i> to say what you want to do
Unit 1.2 H Glücklich ohne Ehe?	<ul style="list-style-type: none"> Using comparative and superlative adjectives German nouns in the plural
Unit 2.1. F Bist du Facebook-Fan?	<ul style="list-style-type: none"> Using direct and indirect object pronouns Using <i>weil</i> and <i>wenn</i>
Unit 2.1. H Sicherheit im Internet	<ul style="list-style-type: none"> Deciding when to use <i>wann</i>, <i>wenn</i> and <i>als</i> The imperative
Unit 2.2 F Trends in der mobilen Handywelt	<ul style="list-style-type: none"> Using the imperfect tense Possessive adjectives
Unit 2.2 H Handys – das Gute, das Schlechte und das Hässliche	<ul style="list-style-type: none"> Using the imperfect tense When to use the imperfect and perfect tenses
Unit 3.1 F Musikfan oder Filmfreak?	<ul style="list-style-type: none"> Using separable verbs in the perfect tense The verb as second idea in the perfect tense
Unit 3.1 H Leinwand oder Flimmerkiste?	<ul style="list-style-type: none"> Using separable and reflexive verbs in the perfect tense Word order using the time –manner – place rule
Unit 3.2 F Wo wollen wir essen?	<ul style="list-style-type: none"> Revising the present tense Modes of address (the three words for 'you')
Unit 3.2 H Essen fassen!	<ul style="list-style-type: none"> Using the correct word order with adverbial phrases Forming questions with the different modes of address
Unit 3.3 F Sport – für alle?	<ul style="list-style-type: none"> Using separable and reflexive verbs in the future tense Using modal verbs
Unit 3.3 H Hast du Mumm?	<ul style="list-style-type: none"> Revising the different words for 'when' Using past, present and future time frames
Theme 1 Unit 4.1. F Hurra! Die Tradition ist da!	<ul style="list-style-type: none"> Using adjectives as nouns The names of countries and places
Unit 4.1. H Bräuche braucht das Land	<ul style="list-style-type: none"> Revising the verb as second idea in the sentence Weak masculine nouns
Unit 4.2 F Das muss gefeiert werden!	<ul style="list-style-type: none"> Revising the perfect tense Describing past activities and saying what you thought of them
Unit 4.2 H Feste feiern, wie sie fallen	<ul style="list-style-type: none"> Using personal pronouns Word order with time –manner – place (revision)
Theme 2 Unit 5.1 F Wo wohnst du?	<ul style="list-style-type: none"> Using prepositions to say where things are The verb as second idea (revision)

History

Please revise the big key topics you have been studying since September 2021:

Weimar and Nazi Germany, 1918–39

- Key topic 1: The Weimar Republic 1918–29
- Key topic 2: Hitler's rise to power, 1919–33
- Key topic 3: Nazi control and dictatorship, 1933–39
- Key topic 4: Life in Nazi Germany, 1933–39

Superpower Relations and the Cold War, 1941–91

- Key topic 1: The origins of the Cold War, 1941–58
- Key topic 2: Cold War crises: Berlin Crisis, 1961 only

Latin

All work covered to date in Cambridge Latin Course books 1 – 5. This will include but is not limited to:

- all vocabulary covered at the start of the exam period from the OCR GCSE checklist
- tenses and persons of verbs (including irregular verbs): indicative present, imperfect, perfect, pluperfect, future, future perfect; subjunctive imperfect and pluperfect. ACTIVE and PASSIVE
- nouns: all cases of 1st, 2nd and 3rd declensions (nom, acc, gen, dat, abl) including neuters.
- adjective agreement
- participles – perfect passive, present active, future active
- infinitives
- imperatives
- gerundives
- uses of the subjunctive (eg. temporal clauses, purpose, indirect questions, indirect commands, result, etc)
- indirect statements

You will be expected to be able to translate and answer comprehension and grammar questions on a Latin passage. You may also be asked to answer some derivation questions.

Maths Set 1

The Year 10 **set 1** revision checklist is the 32 page GCSE document provided by the AQA exam board (for the full GCSE). It is already on Sharepoint under "Maths – 10 – All", under '**GCSE Revision Resources**'. The End of Year exams will be on Chapters 1 to 24 from the Maths GCSE Student Book (ie all content except Chapter 25 on Vector Geometry).

Maths Sets 2/3/4

The End of Year exams will be on Chapters 1 to 19 inclusive from the Maths GCSE Student Book.

Module 1 : Algebra 1	Textbook references
Sequences: Nth term of a linear sequence Nth term of a quadratic Geometric sequences Fibonacci sequence	Collins Chapter 4
Algebraic Manipulation: Basic Algebra Remove a single pair of brackets Factorise expressions (one bracket) by taking out common factors	Collins 8.1 - 8.2

Indices: Recognise and use the relationship between fractional powers and roots Understand and use reciprocals and negative powers Use index laws for multiplication and division of integer, fractional and negative powers Recall the zero power Use the index laws and be able to demonstrate why they work	Collins 14.1 – 14.2, 16.3
Module 2: Number 1	Textbook references
Fractions, Decimals, Percentages: One quantity as a fraction of another Calculating with fractions	Collins 2.1 – 2.4
Reciprocals, terminating and recurring decimals Find a fraction equivalent to a recurring decimal	Collins 16.1
Module 3: Shape 1	Textbook references
Length, Area and Volume Circumference and area of a circle Area of parallelogram and trapezium Sectors Volume of prism, cylinder, pyramid, cones and spheres Use pi in exact calculations	Collins Chapter 9
Constructions and loci Construct a perpendicular bisector and find the mid-point of a line segment, the perpendicular to a line at a point on the line and construct the perpendicular to a line from a point Bisect an angle Find and construct diagrams of simple loci Plans and Elevations	Collins 7.5 – 7.8
Module 4: Number 2	Textbook references
Basic Number: Multiplication and division with decimals Approximations Understand the patterns behind triangular, square and cube numbers Know squares and corresponding roots of integers up to 20 Know cubes of integers from 1 to 10 Find multiples, factors, primes and prime factors Find prime factor composition of positive integers and apply to finding HCFs ,LCMs Negative numbers	Collins Chapter 1
Limits and Accuracy	Collins 16.5 – 16.6
Standard Index Form:	Collins 14.3
Module 5: Data Handling 1	Textbook references
Statistical Measures Find the mean, median, mode, range of data Find the estimated mean, modal class and interval which includes the median of grouped data Use distribution shapes to compare sets of data. Use measures of average and spread to compare sets of data. Scatter Graphs Collecting and Representing Data Frequency Polygons, Cumulative Frequency Box Plots Histograms	Collins Chapter 3 Collins Chapter 18

Module 6: Algebra 2	Textbook references
Linear Equations Use inverse operations to solve equations such as: <ul style="list-style-type: none"> linear equations with integer or fractional coefficients equations with the unknown on both sides, using brackets and with negative solutions Set up simple equations and solve them Use trial and improvement to solve non-linear equations	Collins 15.1 Collins 15.8
Module 7: Shape 2:	Textbook references
Angle facts Triangles Angles in parallel lines Special quadrilaterals Angles in polygons including tessellation Scale Drawings and Bearings	Collins Chapter 6
Pythagoras's Theorem and Trigonometry Including 3D	Collins Chapter 11

Module 8: Algebra 3:	Textbook references
Algebra, Quadratics, Rearranging Formula and Identities: Solve quadratic equations by factorising including $ax^2 + bx + c$ Solve quadratic equations by using difference of two squares Solve quadratic equations by completing the square Solving quadratic equations using the quadratic formula Plotting Quadratic Graphs More than two binomials	Collins 8.3 – 8.8 Collins Chapter 17.1 – 17.4
Module 9: Data Handling 2	Textbook references
Experimental Probability Mutually Exclusive and exhaustive outcomes Expectation Probability and two-way tables Probability and Venn Diagrams Addition Rules for outcomes of events Combined Events Tree diagrams Independent Events Conditional Probability	Collins Chapter 13 Collins Chapter 19
Choices and Outcomes	Collins 16.7
Module 10: Shape 3:	Textbook references
Congruent Triangles Reflection: transform and describe a given reflection fully Rotation: use various angles and centres of rotation Describe a given rotation in full Use translations that are specified by a column vector Enlarge shapes using various centres of enlargement and integer, fractional and negative scale factors Use similar shapes to find enlargement scale factors. Transform 2-D shapes using a combination of transformations Recognise which properties are preserved under transformations	Collins 7.1 – 7.4
Module 11: Number 3:	Textbook references

Basic Percentages and Calculating Percentages: Convert between percentages, fractions and decimals Find percentages, percentage changes and reverse percentages Calculate simple interest Solve problems involving compound interest	Collins 2.5 – 2.6
Ratio and Proportion: Simplify ratios Relate ratio form to fractions Divide values in a given ratio Work with compound measures (calculations involving speed/distance/time, density/mass/volume, pressure/force/area) Convert between different metric units	Collins Chapter 5

Music

1. Purcell: Music For a While
2. Bach: Brandenburg Concerto No. 5 – 3rd movement
3. Beethoven: Pathetique Sonata - 1st movement
4. Star Wars: Main Theme/Rebel Blockade Runner
5. Queen: Killer Queen
6. Wicked: Defying Gravity

Physical Education

The Y10 End of Year exam will cover all Paper 1 and Paper 2 content covered this year. Please see the Chapter titles outlined below.

Applied anatomy and physiology

- Movement analysis
- Physical training
- Use of data
- Sports psychology
- Socio-cultural influences
- Health, fitness and wellbeing

Physics

Topics covered in Year 10 will mainly be tested, although some topics from Year 9 may be included.

From Year 9

Topic 1: Current, voltage and resistance in series and parallel circuits

Topic 2: Waves – wave properties and the wave equation

Topic 3: Energy transfers and Power

From Year 10

Topic 1: Electricity – static, electric fields and electrical components

Topic 2: Electromagnetic waves, uses and dangers

Topic 3: Energy calculations

Topic 4: Magnetism and Electromagnetism, motors, generators and transformers

Topic 5: Forces and Motion, Newton's Laws

Religious Studies

The end of year exam will include 3 sections, worth 24 marks each. There are an additional 3 SPaG marks available overall.

The topics will be:

- [Islam: beliefs/teachings](#)
- [Islam: practices](#)
- [Christianity: beliefs/teachings](#)

[The RE Podcast](#) has a series of excellent episodes related to this course.

For past papers, please use the AQA website. Our course is GCSE RE Specification A. Please note that we are studying the Christianity and Islam papers, NOT the 'Catholic Christianity' paper.

Spanish

- Relationships (family and friends)
- Marriage and partnerships
- Social media
- Mobile technology
- Music cinema and TV
- Food and eating out
- Sports
- Spain and customs
- Festivals in Spain and Hispanic countries