

YEAR 10 - REVISION TOPICS

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 improve 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, SOW EASY. 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 improve 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
- Topic 7: Death and Burial

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

COMPUTER SCIENCE

Section 1

- Iterating through a 2D 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

DESIGN & TECHNOLOGY

Time allowed: 1 hour 30 minutes

The paper is divided into three sections as follows:

- Section A Core technical principles (20 marks)
- Section B Specialist technical principles (20 marks)
- Section C Designing and making principles (40 marks)

The maximum mark for the paper is 80

Equipment needed:

- Black or blue pen, HB pencil, ruler

Types of question in the examination:

- Short multiple-choice questions (where you would select one, of four, possible answers to a given question)
- Short-answer questions (where you would 'state', 'name' or 'give' etc.)
- Extended (describing manufacturing processes, or ways of changing material properties in more detail etc.)
- Evaluation-type (where you would discuss the positive and negative effects of important areas such as mining, farming, use of biodegradable polymers, renewable forms of energy etc.)

- Product analysis and evaluation questions (where you would describe and evaluate the various features of a product in detail)
- Applied mathematical questions (approximately 15% of the overall DT paper)

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, pulleys 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 stabilised to make them more useful in product manufacturing situations
- 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
- Design movements of the 20th Century

ENGLISH LANGUAGE

The exam will be a full AQA English Language Paper 2 paper: Writers' Viewpoints and Perspectives (1h45m).

Section A - Reading, 1 hour

- 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, 45 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 Macbeth 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

What to revise for writing?

The writing paper has 3 parts:

Part 1: 90 word task (4 bullet points) on anything we have covered. There will be 2 choices.

Part 2: 150 word task (2 bullet points) on anything we have covered. There will be 2 choices.

Part 3: Translation task into French.

What to revise for speaking?

General conversation questions – theme 1 only. 7 minutes – questions on any theme 1 units that we have covered so far

What to revise for listening and reading?

Anything that we have done this year may come up. Use quizlet, kerboodle, AQA past papers, TiS and your notes to revise vocab on the topics and practise exam style questions.

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:

- Unit 1 Family, friends and relationships
- Unit 3 free time (film, TV, music, food, sport)
- Unit 2 technology
- Unit 4 festivals

Students can access the **Kerboodle Textbook** online (institution code: SO4) and all vocabulary lists on Quizlet: <https://quizlet.com/class/26644504> The 'Test and Revise' sections in the textbook are very useful for revision.

What to revise for listening and reading?

Anything that we have done this year may come up. Use quizlet, teams, kerboodle, AQA past papers and your notes to revise vocab on the topics and practise exam style questions.

What to revise for writing?

The writing paper has 3 parts:

Part 1: 90 word task (4 bullet points) on anything we have covered. There will be 2 choices.

Part 2: 150 word task (2 bullet points) on anything we have covered. There will be 2 choices.

Part 3: Translation task into German on anything we have covered.

Review the writings we have done this year and make sure you can justify your opinions, use varied vocabulary, use verbs in 3 time frames (past, present, future) and different pronouns and use some complex language. You can find examples of writing and translation questions in the textbook and on AQA past papers.

You can use the textbook, languagesonline and thisschool to revise and practise grammar.

What to revise for speaking?

General conversation questions – 7 minutes – questions on any units that we have covered so far

Use the questions on Teams to practise and make sure you know vocab across the topics covered so far and can use verbs in 3 time frames (past, present, future) and different pronouns and use some complex language.

HISTORY

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

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, 1941-1958

- Key topic 1: The origins of the Cold War, 1941-1958
- Key topic 2: Cold War crises: Berlin and Cuba

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 and Set 2

The Year 10 **sets 1 and 2** 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 23 from the Maths GCSE Student Book (ie all content except Chapters 24 & 25 on ‘Algebraic fractions & functions’ and ‘Vector Geometry’).

Set 3 and Set 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	Collins Chapter 3 Collins Chapter 18

Frequency Polygons, Cumulative Frequency Box Plots Histograms	
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' 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:	Collins 2.5 – 2.6

Convert between percentages, fractions and decimals Find percentages, percentage changes and reverse percentages Calculate simple interest Solve problems involving compound interest	
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

Students will need to revise the following for GCSE Music (Eduqas)

- Bach set work
- Toto Africa
- General listening questions relating to the musical elements including a 10 mark extended answer on an unfamiliar piece of music
- Basic theory in order to answer questions identifying rhythms, intervals, chords, keys and cadences
- Dictation (notating short melodic or rhythmic fragments)

All revision resources are available on Teams

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

Christian Beliefs

- **Nature of God** - the nature of Christian God
- **The Omni's of God** - God as omnipotent, loving and just and the problem of evil and suffering
- **Trinity** - the oneness of God and the Trinity: Father, Son and Holy Spirit

- **Creation** - different Christian beliefs about creating including the role of Word and Spirit (John 1:1-3 and Genesis 1:1-3)
- **Incarnation** - Christian beliefs on the birth of Jesus Christ
- **Crucifixion** - Different Christian beliefs surrounding the crucifixion of Jesus Christ
- **Life after Death Resurrection** - Resurrection and life after death
- **Judgement** - Judgement, heaven and hell
- **Sin and Salvation** - Sin, including original sin. The meaning of salvation, including law, grace and Spirit
- **Role of Christ in Salvation** - The role of Christ in salvation including the idea of atonement

Christian Practices

- **Worship** - Different forms of worship and their significance: liturgical, non-liturgical and informal, including the use of the Bible. Private worship
- **Prayer** - Prayer and its significance, including the Lord's Prayer, set prayers and informal prayer
- **Sacrament: Baptism** - The role and meaning of the sacraments: the meaning of sacrament, the sacrament of baptism and its significance for Christians; infant and believers' baptism; different beliefs about infant baptism
- **Sacrament: Eucharist** - the sacrament of Holy Communion/Eucharist and its significance for Christians, including different ways in which it is celebrated and different interpretations of its meaning
- **Pilgrimage** - The role and importance of pilgrimage and celebrations including: two contrasting examples of Christian pilgrimage: Lourdes and Iona
- **Festivals** - the celebrations of Christmas and Easter, including their importance for Christians in Great Britain today
- **Role of the Church** - The role of the Church in the local community, including food banks and street pastors
- **The Mission of Christianity** - The place of mission, evangelism and Church growth
- **The Worldwide Church** - The importance of the worldwide Church including: working for reconciliation, how Christian churches respond to persecution, the work of one of the following: Catholic Agency For Overseas Development (CAFOD), Christian Aid, Tearfund

Islamic Beliefs

- **Foundations of Faith** - The six articles of faith in Sunni Islam and five roots of Usul ad-Din in Shi'a Islam, including key similarities and differences
- **Tawhid** - Tawhid (the Oneness of God), Qur'an Surah 112
- **The Nature of Allah** - The nature of God: omnipotence, beneficence, mercy, fairness and justice/Adalat in Shi'a Islam, including different ideas about God's relationship with the world: immanence and transcendence
- **Angels** - Angels, their nature and role, including Jibril and Mika'il
- **Predestination** - Predestination and human freedom and its relationship to the Day of Judgement
- **Life After Death** - Akhirah (life after death), human responsibility and accountability, resurrection, heaven and hell
- **Prophethood** - Risalah (Prophethood) including the role and importance of Adam, Ibrahim and Muhammad
- **Holy Books** - The holy books: Qur'an: revelation and authority. The Torah, the Psalms, the Gospel, the Scrolls of Abraham and their authority
- **Imamate** - The imamate in Shi'a Islam: its role and significance

Islamic Practices

- **Introduction** - Five Pillars of Sunni Islam and the Ten Obligatory Acts of Shi'a Islam (students should study the Five Pillars and jihad in both Sunni and Shi'a Islam and the additional duties of Shi'a Islam)
- **Shahadah** - Shahadah: declaration of faith and its place in Muslim practice
- **Salah** - Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer: Jummah; key differences in the practice of salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer.
- **Sawm** - Sawm: the role and significance of fasting during the month of Ramadan including origins, duties, benefits of fasting, the exceptions and their reasons, and the Night of Power, Qur'an 96:1-5
- **Zakah** - Zakah: the role and significance of giving alms including origins, how and why it is given, benefits of receipt, Khums in Shi'a Islam
- **Hajj** - Hajj: the role and significance of the pilgrimage to Makkah including origins, how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance

- **Jihad** - Different understandings of jihad: the meaning and significance of greater and lesser jihad; origins, influence and conditions for the declaration of lesser jihad
- **Festivals**- Festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meanings of Id-ul-Adha, Id-ul-Fitr, Ashura

SPANISH

What to revise for listening and reading?

Anything that we have done this year may come up. Use Quizlet, Teams, Kerboodle, AQA past papers and your notes to revise vocab on these topics: units 1, 2, 3, 4 and 8. Quizlets for these units here:

Theme 1:

UNIT 1 **FAMILY**

UNIT 2 **TECHNOLOGY**

UNIT 3 **FREE TIME**

UNIT 4 **CUSTOMS AND FESTIVALS**

Theme 2:

UNIT 8 **TRAVEL AND TOURISM**

What to revise for writing?

The writing paper has 3 parts:

Part 1: 90 word task (4 bullet points) on anything we have covered. There will be 2 choices.

Part 2: 150 word task (2 bullet points) on anything we have covered. There will be 2 choices.

Part 3: Translation task into Spanish on anything we have covered.

Review the writings we have done this year and make sure you can justify your opinions, use varied vocabulary, use verbs in 3 tenses and different persons and use some complex language.

What to revise for speaking?

The speaking paper has 3 parts. You will have 10 minutes of preparation and you are allowed to take your notes into the exam and read from them.

Part 1: Role Play – 2 minutes – 5 bullet point exchanges

Part 2: Photocard – 2 minutes – 3 questions about a photo

Part 3: General conversation questions – 3 minutes – questions on any units that we have covered so far.