

## YEAR 10 REVISION TOPICS 2019

### ART

The exam will be based on UNIT 1, NATURAL FORMS which has involved the following preparation:

- A CLEAR UNDERSTANDING OF ASSESSMENT OBJECTIVES
- A CLEAR UNDERSTANDING OF HOW TO DEVELOP A SUCCESSFUL PROJECT
- Independent artist research linked to assessment objectives, minimum three artists
- Ongoing media studies and development of ideas
- Ongoing recording of ideas – drawing, photography, 2D, 3D, digital work
- Ongoing development of drawing techniques to improving skill level, linked to assessment objectives and Year 10 drawing exam

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A CLEAR UNDERSTANDING OF HOW TO DEVELOP A SUCCESSFUL PROJECT

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### 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 and balancing equations
- Writing formula, atmosphere and 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

This is related to the following parts of the specification: 1.1 - 1.53; 2.1 - 2.12; 3.1 - 3.21\*; 4.1 - 4.12; 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). You have a copy of the specification in your exercise books.

### CLASSICAL CIVILISATION

This is the same as the OCR specification you already have. Please see this specification for a more detailed breakdown.

1. **Gods** (roles, responsibilities, symbols and representations in Greek and Roman Art)

Greece: Zeus, Hera, Demeter, Poseidon, Hephaistos, Apollo, Artemis, Athena, Aphrodite, Ares, Dionysos, Hestia, Hermes, Hades

Rome: Jupiter, Neptune, Vulcan, Mercury, Mars, Pluto, Apollo, Juno, Venus, Minerva, Diana, Bacchus, Vesta and Ceres

2. **The Universal Hero**: Heracles (Greek) / Hercules (Rome)

- representation in art and literature
- connection with Olympia
- depiction by Ovid and Virgil

### 3. Religion and the City: Temples

- temples and their use
- altars
- temple layout
- roles, reward and responsibilities of priests
- purpose and format of sacrifice
- officials and animals
- Greece: Prescribed sources: The Parthenon and the temple of Zeus at Olympia
- Rome: Prescribed sources: Temple of Fortuna Virilis and the Pantheon; Pontifex Maximus, Pontiffs, Augus / Augures, Vestal Virgils.

### 4. Myth and the City: Foundation Stories

Ancient Greek and Roman belief about how Athens and Rome were founded by their associated heroes, including how and why the myths are depicted as they are; what these myths meant to the city; the role of the hero; the role of the gods.

#### Greece

- The naming of Athens: Poseidon and Athena
- The adventures of Theseus: as displayed on the Theseus Kylix

#### Rome

- The founding of the Roman Race: Aeneas' leadership of the Trojans; arrival and settlement in Italy; the founding of Alba Longa and the line of kings
- The founding of Rome: Romulus and Remus Both
- Comparison of Theseus and Romulus, with use of Plutarch's *Lives*

### 5. Festivals:

Greek and Roman festivals, including the origins of the festival, officials, sacrifice, programme, participants.

Greece - The City Dionysia and The Great Panathenaia

Rome - The Lupercalia and Saturnalia

### 6. Myths and Power:

Links between myth and portrayal of power, including how and why myth might be presented in art to demonstrate power, and the significance of where it was sited/ displayed.

#### Greece

- The Centauromachy: as depicted on the Parthenon
- The Amazonomachy: as depicted on the Bassae frieze

#### Rome

- The Prima Porta of Augustus
- The Ara Pacis of Augustus

### 7. Death and Burial

Practices and beliefs surrounding death and burial.

#### Greece

- The preparation of the body (including *prothesis*)
- Funerary procession (including *ekphora*)
- Burial of the body (including use of *stelai*)
- Festivals for the dead and the ancestors (including *Genesia*)

#### Rome

- The preparation of the body (including funeral clubs)
- Funerary procession
- Burial of the body
- Festivals for the dead and the ancestors (including *Parentalia* and *Lemuria*)

### 8. Journeying to the Underworld

Myths about journeys to the underworld, as told by Greek and Roman authors, including details of the myth and its plot; portrayal of characters; portrayal of the underworld; how the set texts depict and represent ancient culture.

Greece - Persephone and Demeter as told in the *Homeric Hymn to Demeter* 1–104, 301–474

Rome - Orpheus and Eurydice as told by Ovid, *Metamorphoses*, 10: 1–64.

## **COMPUTER SCIENCE**

### Section 1

- Iterating through a 2 d array
- Algorithms and pseudocode
- Insertion, bubble sort, merge
- Binary and Linear Search
- Data representation converting hex, binary and addition of binary numbers
- Logic gates and circuits
- Structured Query Language
- Building robust programs
- Programming techniques

### 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

### Section 3

- RAM and ROM
- Different types of memory
- Fetch Decode Execute Cycle
- Embedded systems
- Storage devices and media
- Role of the registers
- Input and Output devices

## **DESIGN AND TECHNOLOGY**

- Light dependent resistors (LDRs) and other electronic components
- 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
- Applications for robot arms and other types of robots used in industry
- Lever systems and classes of lever
- Types of gear
- Pulley systems
- 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 extruded polypropylene sheet (Correx) 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
- Social, moral and ethical impact of material selection (in product design) on society
- The environmental impact and aesthetic qualities of everyday household products such as steam irons, kettles etc.
- Use of anthropometric data 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
- You will be asked to re-design a common every-day product using sketches and notes. You will be given details of the intended user (such as their age, gender and any other specific requirements etc.) to help guide you.

- You will be given two, of three, orthographic projection elevational views of a basic object and asked to complete the third elevation. You will also be required to produce an isometric projection drawing of the same object on an isometric line grid (no specialist technical drawing equipment will be required for this part).

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

- Calculating tolerances
- Calculating percentages and presenting the data as a bar chart
- Calculating the mechanical advantage (MA) of a lever, gear or pulley system

**ENGLISH LITERATURE**

1hr 30 mins

This exam is two thirds of AQA Literature Paper 2 'Modern Texts and Poetry'. You will have to write two essays: one on 'An Inspector Calls' and one on the 'Power and Conflict' Poetry Anthology. You will have 45 minutes for each essay. The exam is 'closed text' i.e. you will not be allowed your copies of the play or the poems in the exam; all quotations must be learned.

**'An Inspector Calls'**

You will have a choice of **either...**

1. Character-based essay. e.g. the example you have probably written in class already was 'How and why does Sheila change in AIC?'

**or**

1. Theme-based essay. e.g. the example you have probably seen in class already was 'How does Priestley explore responsibility in AIC?'

**'Power and Conflict' Poetry Anthology**

You will be reminded of which poems you have studied:

(The Prelude, The Charge of the Light Brigade, Exposure, Storm on the Island, Remains, War Photographer, Tissue, The Emigree)

You will then have a named poem printed on the exam paper, and an essay question that goes with it. e.g. Compare the ways poets present ideas about power in 'Poem X' (named here, and printed on the exam paper) and in one other poem (this one is your choice – it will not be printed on the exam paper) from 'Power and Conflict'.

You will need to learn quotations from all of the poems you have studied, so you are ready to make comparisons in the exam.

**ENGLISH LANGUAGE**

1hr 45 mins

This exam will be AQA English Language Paper 1: Explorations in Creative Reading and Writing.

**Section A: Reading (1hr)**

**Question 1:** List four things from this part of the text about... (5 mins)

**Question 2:** How does the writer use language in this section to describe the...? (approximately 10 mins)

- Revise language features and techniques
- Revise sentence forms (this is least important)
- Particularly concentrate on imagery (simile, metaphor, personification)

**Question 3:** How does the writer structure the whole text...? (approximately 10 mins)

- Revise the terminology your teacher has given you for discussing the structural features of a text, and the key words/phrases you should be using in your answer to this question.

**Question 4:** Statement from 'a student' – find evidence to illustrate the truth of the statement, and be prepared to consider how far you agree/disagree. You can use language analysis (like Question 2) or structural analysis (like Question 3) as you 'evaluate the textual evidence' (this is the assessment objective here). (approximately 25 mins)

**Section B: Writing (45 mins)**

**Spend 45 minutes writing (but plan it first) a description or story, depending on which option you choose.**

There will be a picture printed on the paper, to inspire your writing.

Revise the advice your teacher has given you regarding how to do creative writing impressively.

e.g. high quality vocabulary, personification, detail (e.g. plenty of nouns), in medias res *etc etc*.

## **FRENCH**

The Year 10 Listening and Reading exams will involve all types GCSE questions and will cover all topics on the specification.

The Writing exam will be based on topics from Theme 1 and the first section of Theme 2 of the GCSE French specification.

The Speaking exam photo cards and / or role-play will be related to topics we have covered in Theme 1 and the first section of Theme 2 of the GCSE French specification.

## **GEOGRAPHY**

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

Detailed revision lists will be given out closer to the exams

## **Y10 GERMAN**

The Year 10 Listening and Reading exams will involve GCSE type questions and will cover all topics we have covered so far.

The Writing and Speaking exams for Mrs Balaam's class will involve the topics of school, holidays, leisure and healthy living. For Mrs Javaid's class: Family and friends, relationships, technology, free time and customs and traditions.

## **HISTORY**

### **Weimar Republic 1918-29**

- The origins of the Republic, 1918–19
- The early challenges to the Weimar Republic, 1919–23
- The recovery of the Republic, 1924–29
- Changes in society, 1924–29

### **Hitler's Rise to Power, 1919-33**

- Early development of the Nazi Party, 1920–22
- The Munich Putsch and the lean years, 1923–29
- The growth in support for the Nazis, 1929–32
- How Hitler became Chancellor, 1932–33

### **Nazi Control and Dictatorship, 1933-39**

- The creation of a dictatorship, 1933–34
- The police state
- Controlling and influencing attitudes
- Opposition, resistance and conformity

### **Life in Nazi Germany, 1933-39**

- Nazi policies towards women
- Nazi policies towards the young
- Employment and living standards
- The persecution of minorities

### **The Origins of the Cold War, 1941-58**

- Early tensions between East and West
- The development of the Cold War
- The Cold War intensifies

### **Cold War Crises, 1958-70**

- Berlin 1958-63
- The Cuban Missile Crisis
- Czechoslovakia

## 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 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> declensions (nom, acc, gen, dat, abl) including neuters.
- adjective agreement
- participles – perfect passive, present active, future active
- infinitives
- imperatives
- gerundives
- ablative absolutes
- 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 revision checklist is the 32 page GCSE document provided by the AQA Exam Board (for the full GCSE). It is available on the VLE under “Maths – 10 – All”, under “[GCSE Revision Resources](#)”, and can also be accessed on Cloudbase and in the “Maths GCSE Higher Tier Revision Area in Showbie Code K5RAT.

### Sets 2, 3 and 4

TOPIC	Collins Textbook Chapter
Basic Number	1
Fractions, Ration and Proportion	2
Statistical Diagrams and Averages	3
Number and Sequences	4
Ratio and Proportion	5
Angles	6
Transformations, Constructions and Loci	7
Algebraic Manipulation	8
Length, Area and Volume	9
Linear Graphs	10
Right Angled Triangles	11
Similarity	12
Probability	13
Powers and Standard Form	14
Equations and Inequalities	15
Counting, Accuracy, Powers and Surds	16
Quadratic Equations	17
Sampling and Statistics	18

## MUSIC

- Bach - Brandenburg Concerto no 5/iii
- Queen – Killer Queen
- Wicked – Defying Gravity
- Purcell – Music For A While
- Beethoven Pathetique
- Star Wars

## **PHYSICAL EDUCATION**

<http://www.aqa.org.uk/subjects/physical-education/gcse/physical-education-8582> - This website also has all past papers and mark schemes needed to practice.

Topics to be revised:

- Skeletal system
- Muscular system
- Synovial joints
- Antagonistic pairs
- The cardio-respiratory system
- Circulatory system
- The heart
- Mechanics of breathing
- Anaerobic and aerobic exercise
- The short and long term effects of exercise
- Movement analysis
- Physical training
- Warming up and cooling down
- Sports psychology

## **PHYSICS**

Topic 1: Static electricity, components and more complex circuits

Topic 2: Wave equation, EM waves, seismic waves and blackbody radiation

Topic 3: KE and GPE calculations, Hooke's Law, energy resources

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

Topic 5: Balanced and unbalanced forces, acceleration, graphs of motion

## **RELIGIOUS STUDIES**

- Islamic Belief / Teachings
- Islamic Practices
- Christian Belief / Teachings
- Christian Practices

The exam will have four sections, one on each topic. Each section will be worth 24 marks, including a 1-mark, 2-mark, 4-mark, 5-mark, and 12-mark question. The exam will last 1 hour 45 minutes, so you should aim to spend approximately 25 minutes on each section.

Please note that this is the only time you will have to trial this paper in its entirety, so you are advised to revise as though it were the real GCSE exam to make the most use out of the feedback you will be given.

## **SPANISH**

### **La dieta**

- Agreement of adjectives
- Verb ser

### **El bienestar**

- Verbs with infinitives
- Verb tener

### **El tabaco**

- Regular –ar verbs
- Question formations

### **Alcohol y drogas**

- Comparative adjectives
- Regular –er and –ir verbs

### **Las descripciones personales**

- Possessive adjectives
- Subject pronouns

### **La situación familiar**

- Estar + past participle
- Desde hace + present tense

### **Las relaciones personales**

- Reflexive verbs

- Conjunctions

### **Los planes del futuro**

- Ir + a + infinitive
- Conditional tense



### **El tiempo libre**

- Preterite tense (regular)
- Use of infinitives

### **Fuera de casa**

- Preterite tense (irregular)
- Time and place expressions

### **Los jóvenes y la tecnología**

- Indirect object pronouns
- Comparative/ superlative adverbs

### **Local Customs**

- Using ser and ir in the preterite
- Expressing actions and opinions

### **Latin American Culture**

- Regular and irregular verbs in the imperfect
- Numbers

### **Spanish Culture**

- Using preterite and imperfect together
- Verbs with spelling changes in the preterite