

GCSE Revision Checklist

Year 11



**The Barlow RC High School
& Specialist Science College**

Art and Design Exam

Session 1: 2hrs

Session 2: 2hrs

Preparation

You must have:

Sketchbook including-

1. Design development
2. Final design
3. Colour studies
4. Annotations explaining personal response

Exam

In the exam you will complete:

- 2D design development and colour studies.
- 3D African inspired construction.
- Painting of 3D African inspired construction.

3D Design

One Paper: 1hr 15 mins

Preparation

You must have:

- Manchester Architecture
- Manchester Architect Information & Sketches
- Design Ideas
- World Architect Info & Development Sketches
- Card Model

Exam

In the exam you will:

- Produce a Storage Unit

Business Studies

Paper 1: 1hr 45mins

Paper 2: 1hr 45mins

Paper 1:(Investigating a small business)

1.1: Enterprise and entrepreneurship

- 1.1.1 The Dynamic Nature of Business
- 1.1.2 Risk and reward
- 1.1.3 The role of business enterprise

1.2 Spotting a Business Opportunity

- 1.2.1 Customer Needs
- 1.2.2 Market research
- 1.2.3 Market Segmentation
- 1.2.4 The Competitive environment

1.3 Putting a business idea into practice

- 1.3.1 Business Aims and objectives
- 1.3.2 Business revenues costs and profits
- 1.3.3 Cash and Cash Flow
- 1.3.4 Sources of Business finance

1.4 Making the business effective

- 1.4.1 The options for start-ups and small businesses
- 1.4.2 Business Location
- 1.4.3 The marketing mix
- 1.4.4 Business Plans

1.5 Understanding external influences

- 1.5.1 Business Stakeholders
- 1.5.2 Technology and Business
- 1.5.3 Legislation and Business
- 1.5.4 The economy and Business
- 1.5.5 External influences

Paper 2: (Building a Business)

2.1 Growing a Business

- 2.1.1 Business Growth
- 2.1.2 Changes in aims and objectives
- 2.1.3 Business Globalisation

2.2 Making marketing decisions

- 2.2.1 product
- 2.2.2 Price
- 2.2.3 Promotion
- 2.2.4 Place
- 2.2.5 Making the marketing mix to make Business decisions

2.3 Making operational decisions

- 2.3.1 Business operations
- 2.3.2 Working with suppliers
- 2.3.3 Managing quality
- 2.3.4 The sales process

2.4 Making financial decisions

- 2.4.1 Business calculations
- 2.4.2 Understanding Business performance

2.5 Making human resource decisions

- 2.5.1 Organisational structure
- 2.5.2 Effective recruitment
- 2.5.3 Effective training and development of staff
- 2.5.4 Motivation

Computer Science

Paper 1: 1hr 30mins

Paper 2: 1hr 30mins

Paper 1: Computer systems

- 1.1 Systems architecture
- 1.2 Memory and storage
- 1.3 Computer networks, connections and protocols
- 1.4 Network security
- 1.5 Systems security
- 1.6 Ethical, legal, cultural and environmental impacts of digital technology

Paper 2: Computational thinking, algorithms and Programming

- 2.1 Algorithms
- 2.2 Programming techniques
- 2.3 Producing robust programs
- 2.4 Computational logic
- 2.5 Translators and facilitators of Language
- 2.6 Data representation

Engineering

One paper: 1hr 15mins

Learning Outcome 1: Know about properties and uses of engineering materials

Types of engineering materials:

- Metals
- Ferrous metals and alloys
- Polymers
- Thermoplastics
- Thermosetting plastics
- Composite
- Smart materials

Uses of specific materials:

- Ferrous and non-ferrous metals and alloys – (e.g. cast iron for machine bases; bronze for boat propellers)
- Thermoplastics – (e.g. ABS for appliance casings)
- Thermosetting plastics – (e.g. phenol-formaldehyde for heat resistant saucepan handles)
- Ceramics – (e.g. tungsten carbide for cutting tool tips)
- Composites – (e.g. carbon fibre for bicycle frames)
- Smart materials – (e.g. shape memory alloy in alarm systems)

Learning Outcome 2: Understand engineering processes and their application

Plastic Moulding Processes:

- Injection moulding
- Blow moulding

Safe use of tools and equipment:

- Features and controls of machines
- Appropriate use of Personal Protective Equipment (PPE)
- Safety
- Precautions

Machine processes (material removal)

- Drilling
- Turning
- Milling
- Grinding

Basic engineering processes:

- Material removal
- Sawing
- Filing
- Threading

Learning Outcome 3: Know about developments in engineering processes

Applications of computer-controlled production processes

- Computer Numerical Control (CNC) machining processes
- CNC lathes and milling/router machines
- Multi-axis machining centres
- Water jet cutting
- Punching machines

Learning Outcome 4: Understand the impact of modern technologies on engineering production

The impact of modern technologies in engineering production:

- Automation
- Output
- Quality
- Workforce
- Costs

Digital communications:

- Uses in research and development
- Computer Aided Design (CAD)
- Electronic communication of drawings
- Video conferencing

Global manufacturing:

- Global supply chain (e.g. proximity of skills base and/or raw materials)
- Business benefits (e.g. changing global economies)
- Standardisation of processes and procedures

English Literature

Paper 1: 1hr 45mins

Paper 2: 2hrs 15mins

This is the minimum you need to do!

Shakespeare: Macbeth

- You must revise your notes from last year on the whole play.
- Try to focus on the characters of both **Lady Macbeth** and **Macbeth**, their **relationship** and how they are presented by Shakespeare.

Re-read the extracts of these scenes that you studied in class:

Act 1

- ✓ Act 1, Scene 5
- ✓ Act 1, Scene 7

Act 2

- ✓ Act 2, Scene 2
- ✓ Act 2, Scene 3

Act 3

- ✓ Act 3, Scene 1
- ✓ Act 3, Scene 2
- ✓ Act 3, Scene 4

Act 5

- ✓ Act 5, Scene 1
- ✓ Act 5, Scene 5

Learn and explode the following quotations:

- Macbeth – “My dearest partner of greatness”
- Lady Macbeth – “too full o’ the milk of human kindness”
- Lady Macbeth - “Come you spirits that tend on mortal thoughts, unsex me here...”
- Lady Macbeth – “I may pour my spirits in thine ear”
- Lady Macbeth – “Great Glamis! Worthy Cawdor!”
- Lady Macbeth – “Look like the innocent flower but be the serpent under’t”
- Lady Macbeth - “Have pluck'd my nipple from his boneless gums, And dash'd the brains out, had I so sworn as you Have done to this.”
- Lady Macbeth – ‘When you durst do it, then you were a man’
- Macbeth – “Sleep no more, Macbeth does murder sleep”
- Macbeth – “Will all great Neptune’s ocean wash this blood clean from my hand?”
- Lady Macbeth - "My hands are of your colour, but I shame, To wear a heart so white"
- Lady Macbeth - “A little water clears us of this deed.”
- Macbeth - "Be innocent of the knowledge, dearest chuck”
- Lady Macbeth – “Are you a man?”
- Lady Macbeth - "My worthy lord, / Your noble friends do lack you"
- Lady Macbeth - “Out, damned spot! out, I say!”
- Macbeth – “She should have died hereafter”

Modern Text: An Inspector Calls

- Revise **Gerald** and think about his social responsibility and relationships with others.

- Revise the theme of **unfairness in society** and the characters that could be used to illustrate this.
- Learn key quotations:

Gerald:

- 'I don't come into this suicide business.'
- 'It's what happened to her after she left Mr Birling's work that's important.'
- 'You couldn't have done anything else'
- 'Yes, I think you were. I know we'd have done the same thing. Don't look like that Sheila.'
- 'Mrs Birling, the inspector knows all that. And I don't think it's a very good idea to remind him'
- 'Well, there's nothing to settle as far as I'm concerned. I've never known an Eva Smith'
- 'I'm sorry, Sheila. But it was all over and done with, last summer. I hadn't set eyes on the girl for at least six months. I don't come into this suicide business'
- 'Sorry- I- well, I've suddenly realized- taken it in properly- that she's dead'
- 'the girl saw me looking at her and then gave me a glance that was nothing less than a cry for help'
- 'She was young and pretty and warm hearted – and intensely grateful. I became at once the most important person in her life – you understand?'
- 'we can keep it from him'
- 'I didn't feel about her as she felt about me'
- 'I'm rather more – upset – by this business than I probably appear to be'
- 'had some affection for her and made her happy for a time.'
- 'Everything's all right now Sheila. (Holds up the ring.) What about this ring?'

Unfairness:

- "a man has to make his own way"
- "Well it's my duty to keep labour costs down."
- "These girls aren't cheap labour"
- "pink and intimate" to "brighter and harder"
- "...I've got to cover this up as soon as I can."
- "...threatened to make a row..."
- "...pretty good sport..."
- "...I have gathered he does drink pretty hard..."
- "She was - very gallant – about it."
- "It's a free country, I told them."
- "You were the wonderful fairy prince. You must have adored it Gerald."
- "I was in a state where a chap easily turns nasty"
- "We are members of one body. We are responsible for each other"
- "Everything's all right now, Sheila. Now what about this ring?"

19th Century: A Christmas Carol

- Re-read the book.
- Watch the film.
- Focus your revision on **joy and happiness** in the novella. Make notes on these key areas and create flash cards that cover these areas.

Learn the following:

- "As solitary as an oyster."
- "As hard and sharp as flint"
- "External heat and cold had little influence on Scrooge."

- “If they would rather die... they had better do it, and decrease the surplus population.”
- Marley’s Ghost: “I am here to-night to warn you, that you have yet a chance and hope of escaping my fate.”
- “There was a boy singing a Christmas Carol at my door last night. I should like to have given him something: that’s all.”
- Fezziwig - “...shaking hands with every person individually as he or she went out, wished him or her a Merry Christmas.”
- “A positive light appeared to issue from Fezziwig’s calves. They shone in every part of the dance like moons.”
- “The happiness he gives, is quite as great as if it costs a fortune.”
- “Another idol has displaced me.”
- “There was nothing very cheerful in the climate or the town, and yet was there an air of cheerfulness abroad.”
- “There never was such a goose. Bob said he didn’t believe there ever was such a goose cooked.”
- “it was a sufficient dinner for the whole family”
- “Mr Scrooge!” said Bob; “I’ll give you Mr Scrooge, the Founder of the Feast!”
- “The boy is ignorance and the girl is want.”
- “This was the end of it, you see! He frightened everyone away from him when he was alive, to profit us when he was dead!”
- “I will honour Christmas in my heart, and try to keep it all the year. I will live in the Past, Present, and the Future. The Spirits of all Three shall strive within me”
- “light as a feather”, “happy as an angel”, “merry as a school boy”
- “No fog, not mist; clear, bright, jovial”
- “Golden sunlight; Heavenly sky; sweet fresh air; merry bells.”
- “His own heart laughed”
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Poetry: Power and Conflict

Revise: **Ozymandias**, **London**, **My Last Duchess**, **The Emigree** and **Exposure**. You need to know quotations for these poems (avoid learning quotations from ‘London’ but you must know the poem well).

Unseen Poetry

- Revise your success criteria for answering the Unseen Question
- Revise all poetic methods
- Complete past papers
- Practise analytical writing:
 - Method
 - Quotation
 - Explain
 - Zoom in x 2
 - Poet’s purpose.

English Language

Paper 1: 1hr 45mins

Paper 2: 1hr 45mins

Section A

- Complete practice questions from past papers – links are on the website
- Revise all success criteria for all Section A questions.
- Revise structural techniques and language techniques.
- Revise MR PASSO - identifying and analysing
- Revise RAPTORS - identifying and analysing

Section B

- Complete practice questions from past papers – links are on the website
- Revise your success criteria for writing.
- Learn sophisticated vocabulary for writing
- Practice writing your story/description that you can adapt in the Paper 1 exam

Food

One exam: 1hr 30mins

1. Health and safety relating to food, nutrition and the cooking environment

- 1.1 Safe and hygienic working practices relating to the individual and the cooking environment
- 1.2 Potential hazards and risks in the cooking environment
- 1.3 Hazard Analysis and Critical Control Point (HACCP)
- 1.5 Safe and hygienic working practices when using cooking equipment and utensils

2. Food legislation and food provenance

- 2.1 The Food Standards Agency (FSA) and food safety legislation
- 2.2 Food provenance

3. Food groups, key nutrients and a balanced diet

- 3.2 The components of a balanced diet
 - 3.2.1 Proportions of the food groups
- 3.3 Nutrients
- 3.4 Nutrient imbalances
- 3.6 Nutritional requirements for different groups of people
- 3.7 Food-related health conditions
 - 3.7.2 Intolerances
 - 3.7.3 Allergies

4. Factors affecting food choice

- 4.3 Seasonality

5. Food preparation, cooking skills and techniques

- 5.1 Key stages and the purpose of a recipe
- 5.2 The characteristics and function of ingredients
- 5.4 Cooking techniques and skills

6. Recipe amendment, development, and evaluation

- 6.1 Recipe amendment
 - 6.1.1 Amending and developing recipes

7. Menu and action planning for completed dishes

7.1 Interpreting a customer brief

7.2 Menu planning

7.4 Evaluating the planning
and outcome of completed dishes against the
requirements of a customer brief

French

Listening foundation: 35mins

Listening higher: 45mins

Reading foundation: 45mins

Reading higher: 1hr

Writing foundation: 1hr 05mins

Writing higher: 1hr 20mins

Theme 1: Identity and culture

Theme 1: Identity and culture covers the following four topics with related sub-topics shown as bullet points:

Topic 1: Me, my family and friends

- Relationships with family and friends
- Marriage/partnership

Topic 2: Technology in everyday life

- Social media
- Mobile technology

Topic 3: Free-time activities

- Music
- Cinema and TV
- Food and eating out
- Sport

Topic 4: Customs and festivals in Spanish-speaking countries/communities

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

Theme 2: Local, national, international and global areas of interest covers the following four topics with related sub-topics shown as bullet points:

Topic 1: Home, town, neighbourhood and region

Topic 2: Social issues

- Charity/voluntary work
- Healthy/unhealthy living

Topic 3: Global issues

- The environment
- Poverty/homelessness

Topic 4: Travel and tourism (Holidays)

Theme 3: Current and future study and employment

Theme 3: Current and future study and employment covers the following four topics:

Topic 1: My studies

Topic 2: Life at school/college

Topic 3: Education post-16

Topic 4: Jobs, career choices and ambitions

Geography

Paper 1: 1hr 30mins

Paper 2: 1hr 30mins

Changing Physical and Human Landscapes

- Drainage basins
- River processes (erosion, transportation, deposition) and the landforms created by these processes e.g. meanders, waterfalls
- Flooding in the UK (Boscastle 2004, Cumbria 2010)
- Flood Hydrographs
- Flood management (hard and soft engineering)
- Coastal processes (erosion, transportation, deposition) and the landforms created by these processes e.g. Wave cut platform, Arches
- Holderness coastline UK
- Coastal erosion management
- UK distinctive landscapes - management

Rural – Urban Links

- Differences and similarities between rural and urban areas in LICs and HICs
- Population change in UK - consequences
- Issues associated with CBDs in UK
- Counter urbanisation – causes and effects
- Retail change - impact of out-of-town shopping and online shopping on CBDs
- Rural issues in UK e.g. isolation, second homes
- Urbanisation in LICs – causes and effects e.g. India, Mumbai
- Global cities – LIC e.g. Manchester and HIC e.g. Mumbai

Tectonic Hazards

- Tectonic Processes at plate margins
- What are the different types of plate margin?
- What happens there? Diagram/explanation
- Convection currents fold mountains, mid-ocean ridges, ocean trenches
- Continental crust vs. Oceanic crust
- Volcanoes
 - Shield volcano formation and characteristics
 - Strato/composite volcano formation and characteristics
 - Features of volcanic landscapes
 - Primary and secondary effects
 - Montserrat – Soufriere Hills eruption 1997, 2004
 - Monitoring and response
- Earthquakes: Cause, effects, responses
 - Difference in effects LIC vs HIC
 - Nepal EQ 2015

- Tsunami: Cause, effects, responses
- Vulnerability to tectonic hazards

Weather, Climate and Ecosystems

- Global Warming: evidence and causes
- Extreme Weather: Cyclones e.g. cyclone Pam 2015 and drought e.g. California 2014
- UK climate – weather contrasts, depressions and anticyclones
- Ecosystems and biomes
- Nutrient cycles
- Tropical Rainforest (Structure, Problems, solutions)
- Savannah (Structure, Problems, solutions)

Geographical skills

- Maps, graphs and understanding data
- UK Fieldwork – Formby and Liverpool CBD
- Decision making exercise

History

Paper 1	Paper 2	Paper 3
Medicine in Britain, c.1250-present	Early Elizabethan England, 1558-88	Weimar and Nazi Germany, 1919-29
75 minutes	55 minutes	80 minutes

*When scheduling examinations, please ensure that X and Y band populations sit the three papers *at the same time*. This will help to avoid some pupils being potentially advantaged or disadvantaged.

*Note that the following revision list comprises of pertinent specification points prescribed by Edexcel. Further information on each one can be found on the Edexcel History website.

Paper 1

- ⇒ c.1250-c.1500: Medicine in medieval England
- ⇒ c.1500-c.1700: The Medical Renaissance in England
- ⇒ c.1700-c.1900: Medicine in eighteenth and nineteenth century Britain
- ⇒ c.1900-present: Medicine in Modern Britain
- ⇒ The British sector of the Western Front: 1914-18

Paper 2

- ⇒ Queen, government and religion, 1558-69
- ⇒ Challenges to Elizabeth at home and abroad, 1569-88
- ⇒ Elizabethan society in the Age of Exploration, 1558-88

Paper 3

- ⇒ The Weimar Republic, 1918-29
- ⇒ Hitler's rise to power, 1919-33
- ⇒ Nazi control and dictatorship, 1933-39
- ⇒ Life in Nazi Germany, 1933-39



















Maths

All papers are 1hr 30mins

	Higher	Foundation
Paper 1	Non-calculator	Calculator
Paper 2	Calculator	Non-calculator
Paper 3	Calculator	Calculator

Year 11 Foundation Topic Checklist					
Year 11 Foundation	Topic	Topic Outcomes	😊	😐	😞
15. Quadratic equations and Graphs	15.1 Expanding double brackets	<ul style="list-style-type: none"> Multiply double brackets. Recognise quadratic expressions. Square single brackets. 			
	15.2 Plotting quadratic graphs	<ul style="list-style-type: none"> Plot graphs of quadratic functions. Recognise a quadratic function. Use quadratic graphs to solve problems. 			
	15.3 Using quadratic graphs	<ul style="list-style-type: none"> Solve quadratic equations $ax^2 + bx + c = 0$ using a graph. Solve quadratic equations $ax^2 + bx + c = k$ Using a graph. 			
	15.4 Factorising quadratic expressions	<ul style="list-style-type: none"> Factorise quadratic expressions. 			
	15.5 Solving quadratic equations algebraically	<ul style="list-style-type: none"> Solve quadratic functions algebraically. 			
Year 11 Foundation	Topic	Topic Outcomes	😊	😐	😞
17. Perimeter, Area and Volume 2	17.1 Circumference of a circle 1	<ul style="list-style-type: none"> Calculate the circumference of a circle. Solve problems involving the circumference of a circle. 			
	17.2 Circumference of a circle 2	<ul style="list-style-type: none"> Calculate the circumference and radius of a circle. Work out percentage error intervals. 			
	17.3 Area of a circle	<ul style="list-style-type: none"> Work out the area of a circle. Work out the radius or diameter of a circle. Solve problems involving the area of a circle. Give answers in terms of π. 			
	17.4 Semicircles and sectors	<ul style="list-style-type: none"> Understand and use maths language for circles and perimeters. Work out areas of semicircles and quarter circle and perimeters. Solve problems involving sectors of circles. 			
	17.5 Composite 2D shapes and cylinders	<ul style="list-style-type: none"> Solve problems involving areas and perimeters of 2D shapes. Work out the volume and surface area of cylinders. 			
	17.6 Pyramids and cones	<ul style="list-style-type: none"> Work out the volume of a pyramid. Work out the surface area of a pyramid. Work out the volume of a cone. Work out the surface area of a cone. 			
	17.7 Spheres and composite solids	<ul style="list-style-type: none"> Work out the volume of a sphere. Work out the surface area of a sphere. Work out the volume and surface area of composite solids. 			
Year 11 Foundation	Topic	Topic Outcomes	😊	😐	😞
18. Fractions, Indices and Standard form	18.1 Multiplying and dividing fractions	<ul style="list-style-type: none"> Multiply and divide mixed numbers and fractions. 			
	18.2 The laws of indices	<ul style="list-style-type: none"> To know and use the laws of indices. 			
	18.3 Writing large numbers in standard form	<ul style="list-style-type: none"> Write large numbers in standard form. Convert large numbers from standard form into ordinary numbers. 			
	18.4 Writing small numbers in standard form	<ul style="list-style-type: none"> Write small numbers in standard form. Convert numbers from standard form with negative powers of ordinary numbers 			
	18.5 Calculating with standard form	<ul style="list-style-type: none"> To multiply and divide numbers in standard form. To add and subtract numbers in standard form. 			
Year 11 Foundation	Topic	Topic Outcomes	😊	😐	😞
19. Congruence, Similarity and Vectors	19.1 Similarity and enlargement	<ul style="list-style-type: none"> Understand similarity. Use similarity to solve angle problems. 			
	19.2 More similarity	<ul style="list-style-type: none"> Find the scale factor of an enlargement. Use similarity to solve problems. 			
	19.3 Using similarity	<ul style="list-style-type: none"> Understand the similarity of regular polygons. Calculate perimeters of similar shapes. 			
	19.4 Congruence 1	<ul style="list-style-type: none"> Recognise congruent shapes. Use congruence to work out unknown angles. 			
	19.5 Congruence 2	<ul style="list-style-type: none"> Use congruence to work out unknown sides. 			
	19.6 Vectors 1	<ul style="list-style-type: none"> Add and subtract vectors. Find the resultant of two vectors. 			
	19.7 Vectors 2	<ul style="list-style-type: none"> Subtract vectors. Find multiples of a vector. 			
Year 11 Foundation	Topic	Topic Outcomes	😊	😐	😞
20. More Algebra	20.1 Graphs of cubic and reciprocal functions	<ul style="list-style-type: none"> Draw and interpret graphs of cubic functions. Draw and interpret graphs of $y = 1/x$. 			
	20.2 Non-linear graphs	<ul style="list-style-type: none"> Draw and interpret non-linear graphs to solve problems. 			
	20.3 Solving simultaneous equations graphically	<ul style="list-style-type: none"> Solve simultaneous equations by drawing a graph. Write and solve simultaneous equations. 			
	20.4 Solving simultaneous equations algebraically	<ul style="list-style-type: none"> Solve simultaneous equations algebraically. 			
	20.5 Rearranging formulae	<ul style="list-style-type: none"> Change the subject of a formula. 			
	20.6 Proof	<ul style="list-style-type: none"> Identify expressions, equations, formulae and identities. Prove results using algebra. 			

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Year 10/11 Higher	Topic	Topic Outcomes			
14 Multiplicative reasoning	14.1 Growth and decay	<ul style="list-style-type: none"> Find an amount after repeated percentage changes. Solve growth and decay problems. 			
	14.2 Compound measures	<ul style="list-style-type: none"> Calculate rates. Convert between metric speed measures. 			
	14.3 More compound measures	<ul style="list-style-type: none"> Solve problems involving compound measures. 			
	14.4 Ratio and proportion	<ul style="list-style-type: none"> Use relationships involving ratio. Use direct and indirect proportion. 			
Year 11 Higher	Topic	Topic Outcomes			
15. Equations and Graphs	15.1 Solving simultaneous equations graphically	<ul style="list-style-type: none"> Solve simultaneous equations graphically. 			
	15.2 Representing inequalities graphically	<ul style="list-style-type: none"> Represent inequalities on graphs. Interpret graphs of inequalities. 			
	15.3 Graphs of quadratic functions	<ul style="list-style-type: none"> Recognise and draw quadratic functions. 			
	15.4 Solving quadratic equations graphically	<ul style="list-style-type: none"> Find approximate solutions to quadratic equations graphically. Solve quadratic equations using an iterative process. 			
	15.5 Graphs of cubic functions	<ul style="list-style-type: none"> Find the roots of cubic equations. Sketch graphs of cubic functions. Solve cubic equations using an iterative process. 			
Year 11 Higher	Topic	Topic Outcomes			
16. Circle Theorems	16.1 Radii and chords	<ul style="list-style-type: none"> Solve problems involving angles, triangles and circles. Understand and use facts about chords and their distance from the centre of a circle. 			
	16.2 Tangents	<ul style="list-style-type: none"> Understand and use facts about tangents at a point and from a point. Give reasons for angle and length calculations involving tangents. 			
	16.3 Angles in circles 1	<ul style="list-style-type: none"> Understand, prove and use facts about angles subtended at the centre and the circumference of circles. 			
	16.4 Angles in circles 2	<ul style="list-style-type: none"> Understand, prove and use facts about angles subtended at the circumference of a circle. 			
	16.5 Applying circle theorems	<ul style="list-style-type: none"> Solve angle problems using circle theorems. Give reasons for angle sizes using mathematical language. Find the equation of the tangent to a circle at a given point. 			
Year 11 Higher	Topic	Topic Outcomes			
17. More Algebra	17.1 Rearranging formulae	<ul style="list-style-type: none"> Change the subject of a formula where the power of the subject appears. Change the subject of a formula where the subject appears twice. 			
	17.2 Algebraic fractions	<ul style="list-style-type: none"> Add and subtract algebraic fractions. Multiply and divide algebraic fractions. Change the subject of a formula involving fractions where all the variables are in the denominator. 			
	17.3 Simplifying algebraic fractions	<ul style="list-style-type: none"> Simplify algebraic fractions. 			
	17.4 More algebraic fractions	<ul style="list-style-type: none"> Add and subtract more complex algebraic fractions. Multiply and divide more complex algebraic fractions. 			
	17.5 Surds	<ul style="list-style-type: none"> Simplify expressions involving surds. Expand expressions involving surds. Rationalise the denominator of a fraction. 			
	17.6 Solving algebraic fraction equations	<ul style="list-style-type: none"> Solve equations that involve algebraic fractions. 			
	17.7 Functions	<ul style="list-style-type: none"> Use function notation. Find composite functions. Find inverse functions. 			
	17.8 Proof	<ul style="list-style-type: none"> Prove a result using algebra. 			
Year 11 Higher	Topic	Topic Outcomes			
18. Vectors and Geometric proof	18.1 Vectors and vector notation	<ul style="list-style-type: none"> Understand and use vector notation. Work out the magnitude of a vector. 			
	18.2 Vector arithmetic	<ul style="list-style-type: none"> Calculate using vectors and represent the solutions graphically. Calculate the resultant of two vectors. 			
	18.3 More vector arithmetic	<ul style="list-style-type: none"> Solve problems using vectors. Use the resultant of two vectors to solve vector problems. 			
	18.4 Parallel vectors and collinear points	<ul style="list-style-type: none"> Express points as position vectors. Prove lines are parallel. Prove points are collinear. 			
	18.5 Solving geometric problems	<ul style="list-style-type: none"> Solve geometric problems in two dimensions using vector methods. Apply vector methods for simple geometric proofs. 			
Year 11 Higher	Topic	Topic Outcomes			
19. Proportion and Graphs	19.1 Direct proportion	<ul style="list-style-type: none"> Write and use equations to solve problems involving direct proportion. 			
	19.2 More direct proportion	<ul style="list-style-type: none"> Write and use equations to solve problems involving direct proportion. Solve problems involving square and cubic proportionality. 			
	19.3 Inverse proportion	<ul style="list-style-type: none"> Write and use equations to solve problems involving inverse proportion. Use and recognise graphs showing inverse proportion. 			
	19.4 Exponential functions	<ul style="list-style-type: none"> Recognise graphs of exponential functions. Sketch graphs of exponential functions. 			
	19.5 Non-linear graphs	<ul style="list-style-type: none"> Calculate the gradient of a tangent at a point. Estimate the area under a non-linear graph. 			
	19.6 Translating graphs of functions	<ul style="list-style-type: none"> Understand the relationship between translating a graph and the change in its function notation. 			
	19.7 Reflecting and stretching graphs of functions	<ul style="list-style-type: none"> Understand the effect stretching a curve parallel to one of the axes has on its function form. Understand the effect reflecting a curve in one of the axes has on its function form. 			

NOVEMBER 2023 MATHEMATICS MOCK 2 EXAMINATIONS



SERVICE - PRAYER - ACHIEVE - RESPECT

⇒ [FOUNDATION REVISION MAT](#)

⇒ [HIGHER REVISION MAT](#)

⇒ [HIGHER TIER – GRADES 6 – 9 REVISION LINKS](#)

⇒ [HIGHER TIER – GRADES 5 – 7 REVISION LINKS](#)

⇒ [FOUNDATION TIER – GRADES 3 – 5 REVISION LINKS](#)

⇒ [FOUNDATION TIER – GRADES 1 – 3 REVISION LINKS](#)

Music

One paper: 1hr 30mins

Component 1-Understanding Music Revision

Four areas of study:

- Western Classical tradition 1650 – 1910
- Popular Music
- Traditional Music
- Western classical tradition since 1910

Listening – unfamiliar music – you are required to listen to unfamiliar music from all four areas of study to identify and accurately describe musical elements, musical context and use musical language – including notation – stave notation, key signatures of up to and including 4 sharps and flats, simple and compound time signatures.

Study pieces:–

- Area of Study no 1 =Mozart Clarinet Concerto - Rondo.
- Area of Study no 3 = Graceland – Paul Simon
 - Graceland
 - You can call me Al
 - Diamonds on the soles of her shoes

You must be able to critically appraise the music from the specified study pieces using knowledge and understanding of:

- The effect of audience, time and place on how the pieces were created, developed and performed
- How and why the music across the selected areas of study has changed over time
- How the composer's purpose and intention for the study pieces is reflected in their use of musical elements
- Relevant musical vocabulary and terminology for the study pieces

Area of Study 1: Western Classical tradition 1650 – 1910

Unfamiliar Music

The Coronation Anthems and Oratorios of Handel

- Zadok the Priest
- The King shall rejoice
- Oratorios = e.g. Messiah

The orchestral Music of Haydn Mozart and Beethoven

Haydn Symphony No. 94 in G major *Surprise*
Symphony No. 1 in D major *The Clock*
Symphony No. 103 in E flat major *Drumroll*
Concertos – Trumpet in E flat major

Mozart Symphony No.25 in G minor K183 *Little G minor*
Symphony No. 41 in C major K551 *Jupiter*
Concertos – Clarinet Concerto in A major
Horn Concerto No.4 in E flat major K495

Beethoven Symphony No. 6 *Pastoral*
Concertos – Piano Concerto No. 5 in E flat major
Violin Concerto in D major

The piano music of Chopin and Schumann

Chopin – ‘Raindrop’ prelude Op. 28 No. 15

‘Military’ polonaise Op. 40 No. 1

Schumann – ‘Kinderszenen’

The Requiem of the late Romantic Period

Faure – Requiem

Verdi – Requiem

Brahms – Requiem

Dvorak - Requiem

Element type	Element
Melody	<ul style="list-style-type: none">• Conjunct, disjunct, triadic, broken chords, scalar, arpeggio• Intervals within the octave• Passing notes• Diatonic, chromatic• Slide/portamento, ornamentation including acciaccaturas, appoggiaturas• Ostinato• Phrasing, articulation
Harmony	<ul style="list-style-type: none">• diatonic, chromatic• consonant, dissonant• pedal, drone• cadences: perfect, plagal, imperfect, interrupted and tierce de Picardie• identification of major, minor and dominant seventh chords using chord symbols/roman numerals.
Tonality	<ul style="list-style-type: none">• major, minor, and their key signatures to four sharps and flats• modulation to dominant, subdominant in major or minor keys• relative major or minor• tonic major or minor.
Structure	<ul style="list-style-type: none">• binary and ternary• rondo• arch-shape• through-composed• theme and variations, sonata, minuet and trio, scherzo and trio• call and response• ground bass, continuo• cadenza.
Sonority (Timbre)	<ul style="list-style-type: none">• instruments and voices singly and in combination as found in music, including that for solo instruments, concertos, chamber groups• instrumental techniques such as arco, pizzicato, con sordino.
Texture	<ul style="list-style-type: none">• harmonic/homophonic/chordal• polyphonic/contrapuntal• imitative, canonic, layered• antiphonal• a cappella

	<ul style="list-style-type: none"> • monophonic/single melody line • melody and accompaniment • unison, octaves.
Tempo, metre and rhythm	<ul style="list-style-type: none"> • simple and compound time • regular • anacrusis • common Italian tempo terms eg allegro, andante • pulse • augmentation, diminution • hemiola • semibreve, minim, crotchet, quaver, semiquaver • dotted rhythms, triplets, scotch snap • rubato, pause • tempo.
Dynamics and articulation	<p>Gradation of dynamics as follows:</p> <ul style="list-style-type: none"> • <i>pp, p, mp, mf, f, ff</i> including the Italian terms • <i>cresc, crescendo, dim, diminuendo</i> including hairpins • <i>sfz, sforzando</i> • common signs, terms and symbols.

Area of Study 2: Popular Music

Unfamiliar Music

- **Music of Broadway**
 - **Bernstein** – *West Side Story*
 - **Alan Menken** – *Little Shop of Horrors*
 - **Jim Jacobs and Warren Casey** – *Grease*
 - **Elton John and Tim Rice** – *The Lion King*
- **Rock Music of 1960s and 1970s**
 - **The Beatles** – *Sgt Pepper's Lonely Hearts Club Band*
 - **Led Zeppelin** – *IV*
 - **Pink Floyd** – *Dark side of the Moon*
- **Film and computer game music 1990s to present**
 - **John Williams** – *Star Wars*
- *Harry Potter*
 - **Hans Zimmer** – *Pirates of the Caribbean*
- *Gladiator*
- *The Dark Knight*
 - **Harry Gregson-Williams** – *Metal Gear Solid 4 – Guns of Patriots (15)*
- **Pop music 1960s to present**
 - **White Stripes** – *Elephant*
 - **Taylor Swift** – *1989 (2014)*
 - **Adele** – *21*
 - **Alicia Keys** – *Girl on Fire (2012)*
 - **Coldplay** – *Ghost Stories (2014)*

Element type	Element
Melody	<ul style="list-style-type: none"> • riff • pitch bend • melisma • hook • slide • glissando • improvisation • ostinato • blue notes
Harmony	<ul style="list-style-type: none"> • power chords • chord symbols eg C7 • stock chord progressions eg I VI IV V.
Tonality	<ul style="list-style-type: none"> • pentatonic • modal • blues scale.
Structure	<ul style="list-style-type: none"> • intro/outro • verse • chorus • break • twelve-bar blues • drum fill.
Sonority (Timbre)	<ul style="list-style-type: none"> • standard contemporary instrument types eg electric guitar, synthesisers • specific instrument types eg sitar, dilruba • instrumental techniques eg palm mute (pm), pitch bend, hammer-on (ho), pull-off (po), slide guitar/bottleneck • drum kit components and techniques eg rim • vocal timbres eg falsetto, belt, rap, beat-boxing, scat singing • specific instrumental techniques eg slap bass • specific instrumental effects eg amplification, distortion • specific technological recording techniques eg automatic doubletracking • (ADT) and direct input transformer (DIT).
Tempo, metre and rhythm	<ul style="list-style-type: none"> • bpm (beats per minute) • mm (metronome marking) • groove • backbeat • syncopation • off-beat • shuffle, swing/swung.

Area of Study 3: Traditional/World

Unfamiliar Music

- **Blues music 1920 – 1950**
 - **Robert Johnson** – *The Complete Collection*
 - **Bessie Smith** – *The Best of Bessie Smith*
 - **Big Bill Broonzy** – *The Anthology*
 - **Blind Willie Mc Tell** – *The Ultimate Blues Collection*
- **Fusion Music incorporating African and/or Caribbean music**
 - **Bob Marley** – *Legend*
 - **Paul Simon** – *Graceland*
- **Contemporary Latin music**
 - **Santana** – *Supernatural*
 - **Buena Vista Social Club** – *Buena Vista Social Club*
 - **Piazzolla** – *Libertango*
- **Contemporary Folk music of the British Isles**
 - **Mumford and Sons** – *Sigh no more*
 - **Kate Rusby** – *Little Lights*

Element type	Element
Melody	<ul style="list-style-type: none"> ● blue notes ● pentatonic, whole tone, modal ● slide/glissando/portamento, pitch bend, appoggiaturas ● ostinato ● riff ● melody–scat ● melisma ● improvisation
Tonality	<ul style="list-style-type: none"> ● modal ● pentatonic
Structure	<ul style="list-style-type: none"> ● strophic, verse and chorus, cyclic ● call and response ● popular song forms ● structure – 12/16 bar blues.
Sonority (Timbre)	<ul style="list-style-type: none"> ● generic families of instruments as found in traditional/world music eg steel drums ● the use of technology, synthesised and computer-generated sounds, sampling and the use of techniques such as reverb, distortion and chorus ● drone ● vocal techniques eg falsetto, vibrato, rap.
Texture	<ul style="list-style-type: none"> ● a cappella ● imitative ● layered/layering.
Tempo, metre and rhythm	<ul style="list-style-type: none"> ● irregular, free ● skank ● bubble ● clave (Bo Diddley type beat) ● augmentation, diminution

	<ul style="list-style-type: none"> • anacrusis • hemiola • bi-rhythm, cross-rhythm, polyrhythm • shuffle beat • backbeat • syncopation • off-beat • bossa nova • samba • salsa • tango • habanera • danzón • merengue • cha-cha-cha • rumba.
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Area of Study 4: Western classical tradition 1910 – present

Unfamiliar Music

- **The orchestral music of Copland**
 - **Rodeo**
 - **Appalachian Spring**
- **British music of Arnold, Britten, Maxwell-Davies and Tavener**
 - **Malcolm Arnold** – *Concerto for Guitar and Orchestra*
 - **Benjamin Britten** – *Peter Grime: 4 Sea Interludes*
- *Ceremony of Carols*
 - **Peter Maxwell-Davies** – *Orkney Wedding with Sunshine*
 - **John Tavener** – *The Lamb & The Tyger*
- **The orchestral music of Zoltan Kodaly and Bela Bartok**
 - **Kodaly** – *Hary Janos*
 - **Bartok** – *Concerto for Orchestra*
- **Minimalist music of John Adams, Steve Reich and Terry Riley**
 - **John Adams** – *Shaker Loops*
- *Short Ride in a fast machine*
 - **Steve Reich** – *Clapping Music*
 - **Terry Riley** – *In C*

Element type	Element
Melody	<ul style="list-style-type: none"> • ostinato • motifs • melisma.
Harmony	<ul style="list-style-type: none"> • chromatic • dissonant • pedal.
Tonality	<ul style="list-style-type: none"> • pentatonic • whole tone • modal • tonal ambiguity.

Sonority (Timbre)	<ul style="list-style-type: none"> • specific families of instruments • use of technology, synthesised and computer-generated sounds • instrumental techniques eg vamping.
Texture	<ul style="list-style-type: none"> • drones • imitative • layered/layering.
Tempo, metre and rhythm	<ul style="list-style-type: none"> • irregular, free • augmentation, diminution • anacrusis • hemiola • rubato • bi-rhythm, cross-rhythm, polyrhythm • syncopation • off-beat.

Physical Education

Paper 1 – Fitness and Body Systems

1 hour 30 minutes (80 marks worth 36% of the grade)

Topic 1- Applied anatomy and physiology (**CGP** pages 1-14)

Topic 2- Movement analysis (**CGP** pages 15-18)

Topic 3 -Physical training (**CGP** pages 18-34)

Paper 2 – Health and Performance

1 hour 15 minutes (60 marks worth 24% of the grade)

Topic 1-Health, fitness and well-being (**CGP** pages 36-44)

Topic 2- Sports Psychology (**CGP** pages 45-49)

Paper 1: Fitness and Body Systems

Topic 1: Applied anatomy and physiology


Subject content	What students need to learn
1.1 The structure and functions of the musculo-skeletal system	1.1.1 The functions of the skeleton applied to performance in physical activities and sports: protection of vital organs, muscle attachment, joints for movement, platelets, red and white blood cell production, storage of calcium and phosphorus
	1.1.2 Classification of bones: long (leverage), short (weight bearing), flat (protection, broad surface for muscle attachment), irregular (protection and muscle attachment) applied to performance in physical activities and sports
	1.1.3 Structure: cranium, clavicle, scapula, five regions of the vertebral column (cervical, thoracic, lumbar, sacrum, coccyx), ribs, sternum, humerus, radius, ulna, carpals, metacarpals, phalanges (in the hand), pelvis, femur, patella, tibia, fibula, tarsals, metatarsals, phalanges (in the foot), and their classification and use applied to performance in physical activities and sports
	1.1.4 Classification of joints: pivot (neck – atlas and axis), hinge (elbow, knee and ankle), ball and socket (hip and shoulder), condyloid (wrist), and their impact on the range of possible movements
	1.1.5 Movement possibilities at joints dependent on joint classification: flexion, extension, adduction, abduction, rotation, circumduction, plantar-flexion, dorsi-flexion and examples of physical activity and sporting skills and techniques that utilise these movements in different sporting contexts
	1.1.6 The role of ligaments and tendons, and their relevance to participation in physical activity and sport
	1.1.7 Classification and characteristics of muscle types: voluntary muscles of the skeletal system, involuntary muscles in blood vessels, cardiac muscle forming the heart, and their roles when participating in physical activity and sport
	1.1.8 Location and role of the voluntary muscular system to work with the skeleton to bring about specific movement during physical activity and sport, and the specific function of each muscle (deltoid, biceps, triceps, pectoralis major, latissimus dorsi, external obliques, hip flexors, gluteus maximus, quadriceps, hamstrings, gastrocnemius and tibialis anterior)

	1.1.9	Antagonistic pairs of muscles (agonist and antagonist) to create opposing movement at joints to allow physical activities (e.g. gastrocnemius and tibialis anterior acting at the ankle -plantar flexion to dorsi flexion; and quadriceps and hamstrings acting at the knee, biceps and triceps acting at the elbow, and hip flexors and gluteus maximus acting at the hip – all flexion to extension)
	1.1.10	Characteristics of fast and slow twitch muscle fibre types (type I, type IIa and type IIx) and how this impacts on their use in physical activities
	1.1.11	How the skeletal and muscular systems work together to allow participation in physical activity and sport
1.2 The structure and functions of the cardio-respiratory system	1.2.1	Functions of the cardiovascular system applied to performance in physical activities: transport of oxygen, carbon dioxide and nutrients, clotting of open wounds, regulation of body temperature
	1.2.2	Structure of the cardiovascular system: atria, ventricles, septum, tricuspid, bicuspid and semi-lunar valves, aorta, vena cava, pulmonary artery, pulmonary vein, and their role in maintaining blood circulation during performance in physical activity and sport
	1.2.3	Structure of arteries, capillaries and veins and how this relates to function and importance during physical activity and sport in terms of blood pressure, oxygenated, deoxygenated blood and changes due to physical exercise
	1.2.4	The mechanisms required (vasoconstriction, vasodilation) and the need for redistribution of blood flow (vascular shunting) during physical activities compared to when resting
	1.2.5	Function and importance of red and white blood cells, platelets and plasma for physical activity and sport

Topic 2: Movement analysis

Subject content	What students need to learn
2.1 Lever systems, examples of their use in activity and the mechanical advantage they provide in movement	2.1.1 First, second and third class levers and their use in physical activity and sport
	2.1.2 Mechanical advantage and disadvantage (in relation to loads, efforts and range of movement) of the body's lever systems and the impact on sporting performance
2.2 Planes and axes of movement	2.2.1 Movement patterns using body planes and axes: sagittal, frontal and transverse plane and frontal, sagittal, vertical axes applied to physical activities and sporting actions
	2.2.2 Movement in the sagittal plane about the frontal axis when performing front and back tucked or piked somersaults
	2.2.3 Movement in the frontal plane about the sagittal axis when performing cartwheels
	2.2.4 Movement in the transverse plane about the vertical axis when performing a full twist jump in trampolining

Topic 3: Physical training

Subject content	What students need to learn
 <p>3.1 The relationship between health and fitness and the role that exercise plays in both</p>	<p>3.1.1 Definitions of fitness, health, exercise and performance and the relationship between them</p>
<p>3.2 The components of fitness, benefits for sport and how fitness is measured and improved</p>	<p>3.2.1 Components of fitness and the relative importance of these components in physical activity and sport: cardiovascular fitness (aerobic endurance), strength, muscular endurance, flexibility, body composition, agility, balance, coordination, power, reaction time, and speed</p>
	<p>3.2.2 Fitness tests: the value of fitness testing, the purpose of specific fitness tests, the test protocols, the selection of the appropriate fitness test for components of fitness and the rationale for selection</p>
	<p>3.2.3 Collection and interpretation of data from fitness test results and analysis and evaluation of these against normative data tables</p>
	<p>3.2.4 Fitness tests for specific components of fitness: cardiovascular fitness – Cooper 12-minute tests (run, swim), Harvard Step Test; agility – Illinois agility run test; strength – grip dynamometer; muscular endurance – one-minute sit-up, one-minute press-up; speed – 30 m sprint; power – vertical jump; flexibility – sit and reach</p>
	<p>3.2.5 How fitness is improved – see section 3.3.1–3.3.3</p>
<p>3.3 The principles of training and their application to personal exercise/ training programmes</p>	<p>3.3.1 Planning training using the principles of training: individual needs, specificity, progressive overload, FITT (frequency, intensity, time, type), overtraining, reversibility, thresholds of training (aerobic target zone: 60–80% and anaerobic target zone: 80%–90% calculated using simplified Karvonen formula, i.e. $(220) - (\text{your age}) = \text{MaxHR}$; $(\text{MaxHR}) \times (60\% \text{ to } 80\%) = \text{aerobic training zone}$; $(\text{MaxHR}) \times (80\% \text{ to } 90\%) = \text{anaerobic training zone}$)</p>
	<p>3.3.2 Factors to consider when deciding the most appropriate training methods and training intensities for different physical activities and sports (fitness/sport requirements, facilities available, current level of fitness)</p>
	<p>3.3.3 The use of different training methods for specific components of fitness, physical activity and sport: continuous, Fartlek, circuit, interval, plyometrics, weight/resistance. Fitness classes for specific components of fitness, physical activity and sport (body pump, aerobics, Pilates, yoga, spinning). The advantages and disadvantages of different training methods</p>
<p>3.4 The long-term effects of exercise</p>	<p>3.4.1 Long-term effects of aerobic and anaerobic training and exercise and the benefits to the muscular-skeletal and cardio-respiratory systems and performance</p>
	<p>3.4.2 Long-term training effects: able to train for longer and more intensely</p>

	3.4.3	Long-term training effects and benefits: for performance of the muscular-skeletal system: increased bone density, increased strength of ligaments and tendons, muscle hypertrophy, the importance of rest for adaptations to take place, and time to recover before the next training session
	3.4.4	Long-term training effects and benefits: for performance of the cardio-respiratory system: decreased resting heart rate, faster recovery, increased resting stroke volume and maximum cardiac output, increased size/strength of heart, increased capillarisation, increase in number of red blood cells, drop in resting blood pressure due to more elastic muscular wall of veins and arteries, increased lung capacity/volume and vital capacity, increased number of alveoli, increased strength of diaphragm and external intercostal muscles
3.5 How to optimise training and prevent injury	3.5.1	The use of a PARQ to assess personal readiness for training and recommendations for amendment to training based on PARQ
	3.5.2	Injury prevention through: correct application of the principles of training to avoid overuse injuries; correct application and adherence to the rules of an activity during play/participation; use of appropriate protective clothing and equipment; checking of equipment and facilities before use, all as applied to a range of physical activities and sports
	3.5.3	Injuries that can occur in physical activity and sport: concussion, fractures, dislocation, sprain, torn cartilage and soft tissue injury (strain, tennis elbow, golfers elbow, abrasions)
	3.5.4	RICE (rest, ice, compression, elevation)
	3.5.5	Performance-enhancing drugs (PEDs) and their positive and negative effects on sporting performance and performer lifestyle, including anabolic steroids, beta blockers, diuretics, narcotic analgesics, peptide hormones (erythropoietin (EPO), growth hormones (GH)), stimulants, blood doping
3.6 Effective use of warm up and cool down	3.6.1	The purpose and importance of warm-ups and cool downs to effective training sessions and physical activity and sport
	3.6.2	Phases of a warm-up and their significance in preparation for physical activity and sport
	3.6.3	Activities included in warm-ups and cool downs

Topic 4: Use of data

Subject content		What students need to learn
In this topic students will develop knowledge and understanding of data analysis in relation to key areas of physical activity and sport, through this content and linking it to other topics.		
4.1 Use of data	4.1.1	Develop knowledge and understanding of data analysis in relation to key areas of physical activity and sport
	4.1.2	Demonstrate an understanding of how data is collected in fitness, physical and sport activities – using both qualitative and quantitative methods
	4.1.3	Present data (including tables and graphs)

4.1.4	Interpret data accurately
4.1.5	Analyse and evaluate statistical data from their own results and interpret against normative data in physical activity and sport


Paper 2: Health and Performance

Topic 1: Health, fitness and wellbeing

Subject content	What students need to learn
In this topic students will develop knowledge and understanding of the benefits of participating in physical activity and sport to health, fitness and wellbeing through the following content.	
1.1 Physical, emotional and social health, fitness and wellbeing	1.1.1 Physical health: how increasing physical ability, through improving components of fitness can improve health/reduce health risks and how these benefits are achieved
	1.1.2 Emotional health: how participation in physical activity and sport can improve emotional/psychological health and how these benefits are achieved
	1.1.3 Social health: how participation in physical activity and sport can improve social health and how these benefits are achieved
	1.1.4 Impact of fitness on wellbeing: positive and negative health effects
	1.1.5 How to promote personal health through an understanding of the importance of designing, developing, monitoring and evaluating a personal exercise programme to meet the specific needs of the individual
	1.1.6 Lifestyle choices in relation to: diet, activity level, work/ rest/sleep balance, and recreational drugs (alcohol, nicotine)
	1.1.7 Positive and negative impact of lifestyle choices on health, fitness and wellbeing, e.g. the negative effects of smoking (bronchitis, lung cancer)
1.2 The consequences of a sedentary lifestyle	1.2.1 A sedentary lifestyle and its consequences: overweight, overfat, obese, increased risk to long-term health, e.g. depression, coronary heart disease, high blood pressure, diabetes, increased risk of osteoporosis, loss of muscle tone, posture, impact on components of fitness
	1.2.2 Interpretation and analysis of graphical representation of data associated with trends in physical health issues
1.3 Energy use, diet, nutrition and hydration	1.3.1 The nutritional requirements and ratio of nutrients for a balanced diet to maintain a healthy lifestyle and optimise specific performances in physical activity and sport
	1.3.2 The role and importance of macronutrients (carbohydrates, proteins and fats) for performers/players in physical activities and sports, carbohydrate loading for endurance athletes, and timing of protein intake for power athletes
	1.3.3 The role and importance of micronutrients (vitamins and minerals), water and fibre for performers/players in physical activities and sports
	1.3.4 The factors affecting optimum weight: sex, height, bone structure and muscle girth
	1.3.5 The variation in optimum weight according to roles in specific physical activities and sports
	1.3.6 The correct energy balance to maintain a healthy weight

1.3.7	Hydration for physical activity and sport: why it is important, and how correct levels can be maintained during physical activity and sport
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Topic 2: Sport psychology

Subject content	What students need to learn
2.1 Classification of skills (basic/ complex, open/closed)	2.1.1 Classification of a range of sports skills using the open-closed, basic (simple)-complex, and low organisation-high organisation continua
	2.1.2 Practice structures: massed, distributed, fixed and variable
	2.1.3 Application of knowledge of practice and skill classification to select the most relevant practice to develop a range of skills
2.2 The use of goal setting and SMART targets to improve and/or optimise performance 	2.2.1 The use of goal setting to improve and/or optimise performance
	2.2.2 Principles of SMART targets (specific, measureable, achievable, realistic, time-bound) and the value of each principle in improving and/or optimising performance
	2.2.3 Setting and reviewing targets to improve and/or optimise performance
2.3 Guidance and feedback on performance	2.3.1 Types of guidance to optimise performance: visual, verbal, manual and mechanical
	2.3.2 Advantages and disadvantages of each type of guidance and its appropriateness in a variety of sporting contexts when used with performers of different skill levels
	2.3.3 Types of feedback to optimise performance: intrinsic, extrinsic, concurrent, terminal
	2.3.4 Interpretation and analysis of graphical representation of data associated with feedback on performance
2.4 Mental preparation for performance	2.4.1 Mental preparation for performance: warm up, mental rehearsal

Appendix 5: Glossary of key terms

The following list contains all relevant technical vocabulary, terminology and definitions associated with the content for Components 1 and 2. Students will be expected to know and understand these, and other words and definitions, particularly for use in the examination papers. This glossary is not an exhaustive list of key terms and should be used in conjunction with the content for components 1 and 2 to support teaching and learning.

Key term	Definition
Aerobic work	Working at a moderate intensity so that the body has time to utilise oxygen for energy production, allowing the body to work for a continuous period, e.g. long-distance events, for the duration of a match
Anaerobic work	Working at a high intensity without oxygen for energy production, therefore limited energy so work period will be short, e.g. sprinting up the wing in a football match

Antagonistic muscle pairs	Pairs of muscles that work together to bring about movement. As one muscle contracts (agonist) the other relaxes (antagonist). For example, the biceps and triceps. The triceps relax to allow the biceps to contract to flex the arm at the elbow. Roles are reversed to extend the arm at the elbow
Axis	A line around which the body/a body part can turn
Basic skill	A simple skill requiring little concentration to execute
Closed skill	A skill performed in a predictable environment, e.g. a player taking a penalty
Complex skill	A skill requiring a lot of attention/concentration
Distributed practice	Intervals between skill practice in a training session for rest or mental rehearsal
Exercise	A form of physical activity done to maintain or improve health and/or fitness; it is not competitive sport
Energy balance	This is the basis of weight control. For body weight to remain constant energy input (via food) must equal energy expenditure
Feedback	Information received during or after a performance about the performance
Fitness	The ability to meet the demands of the environment
Fixed practice	Repeatedly practising a whole skill within a training session
Frontal axis	Imaginary line passing horizontally through the body from left to right, allows flexion and extension
Frontal plane	Imaginary line dividing the body vertically from front to back. Movement occurs in the frontal plane about the sagittal axis, e.g. when performing a star jump
Guidance	Information to aid the learning of a skill. This information can be given visually, e.g. through demonstrations; verbally, e.g. by the coach explaining how to perform the technique; manually, e.g. by physically moving a performer into the correct position; and mechanically, e.g. by using a harness in trampolining
Health	A state of complete emotional, physical and social wellbeing, and not merely the absence of disease and infirmity
High organisation skill	A skill that cannot be broken down easily and practised separately because the phases of the skill are closely linked, e.g. cartwheel, golf swing
Hydration	Being hydrated means the body has the correct amount of water in cells, tissues and organs to function correctly. The average recommended daily intake is 2.5 litres of water for men and 2 litres for women
Lactic acid	A by-product of energy production. Formed when the body is exercising anaerobically at high intensity
Lactate accumulation	When lactate levels in the blood/muscle rise due to increased work intensity, e.g. moving from aerobic to anaerobic exercise
Lifestyle choice	The choices we make about how we live and behave that impact on our health
Low organisation skill	A basic skill that can be broken down easily into different phases so each part can be practised separately, e.g. tennis serve, front crawl swimming stroke
Macronutrient	A type of food required in relatively large amounts in the diet, e.g. carbohydrates and fats

Massed practice	Practice that occurs without rest between trials
Micronutrient	A type of food required in relatively small quantities in the diet, e.g. vitamins and minerals
Mechanical advantage	2nd class levers allow a large load to be moved with a relatively small amount of muscular effort
Mechanical disadvantage	3rd class levers cannot lift as heavy loads, with the same amount of effort, as 2nd class levers due to the position of the effort and load from the fulcrum
Muscle fibre types	Muscle fibres make up the skeletal muscle. The different fibre types are type I, type IIa and type IIx
Open skill	Skills performed in an unpredictable environment, where the performer has to react and adjust due to the changing nature of the situation, for example a player trying to pass the ball to a team mate who is trying to get free from the opposition
Optimum weight	Refers to the weight someone should be, on average, based on their sex, height, bone structure and muscle girth
Sagittal axis	Imaginary line passing horizontally through the body from front to back, allows abduction and adduction
Sagittal plane	Imaginary line dividing the body vertically into left and right sides
Sedentary lifestyle	Where there is little, irregular or no physical activity
Sportsmanship	Qualities of fairness, following the rules, being gracious in defeat or victory
Transverse plane	Imaginary line dividing the body horizontally from front to back
Type I	Also known as slow-twitch muscle fibres, they are suited to low intensity aerobic work, for example marathon running, as they can be used for a long period of time without fatiguing
Type IIa	These are fast-twitch muscle fibres, they are used in anaerobic work, but can be improved through endurance training to increase their resistance to fatigue
Type IIx (previously type IIb)	These are fast-twitch muscle fibres that are used in anaerobic work and can generate much greater force than the other fibre types, but fatigue quickly. They are beneficial to 100 m sprinters
Variable practice	A training session that includes frequent changes of task so that the skill can be repeated in different situations
Vascular shunting	Process that increases blood flow to active areas during exercise by diverting blood away from inactive areas. This is achieved by vasoconstriction and vasodilation
Vasoconstriction	Narrowing of the internal diameter (lumen) of the blood vessel to decrease blood flow
Vasodilation	Widening of the internal diameter (lumen) of the blood vessel to increase blood flow
Vertical axis	Imaginary line passing vertically through the body, allows rotation of the body in an upright position

Photography

Session 1: 2hrs

Session 2: 2hrs

Preparation, you must have-

- ☐ Mind map of chosen exam topic
- ☐ Choose 3 of your own artists and create a research sheet
- ☐ Decide your starting point
- ☐ Analyse 3 of your artists photographs
- ☐ Taking photographs for your first photoshoot-
 1. Create a contact sheet
 2. Tick the core skills table
 3. Answer the reflection questions
 4. Answer so far questions
- ☐ Taking photographs for your second photoshoot-
 1. Create a contact sheet
 2. Tick the core skills table
 3. Answer the reflection questions
 4. Answer so far questions
- ☐ Draw and plan your third and final photoshoot

RE

Paper 1: 1hr 45mins

Paper 2: 50mins

Paper 3: 50mins

Paper One: Catholic Christianity

Section 1: Beliefs and Teachings		R	A	G
1.1	The Trinity: the nature and significance of the trinity. The roles of the Father, Son and Holy Spirit.			
1.2	The trinity and the Bible. The development of the doctrine of the trinity			
1.3	Creation: the nature and significance of the biblical account of Creation. How do Christians interpret Genesis? What does Genesis say about God?			
1.4	Creation and humanity. Christians, stewardship and dominion			
1.5	The Incarnation: Jesus as the incarnate Son and the divine Word.			
1.6	The events in the Paschal Mystery: Catholic teachings about the life, death, resurrection and ascension of Jesus			
1.7	The significance of the life, death, resurrection and ascension of Jesus for Catholic beliefs about salvation and grace.			
1.8	Catholic beliefs about eschatology: life after death; the nature of resurrection, judgment, heaven, hell and purgatory.			

Section 2: Practices		R	A	G
2.1	The 7 sacraments for Catholics. The practice and symbolism of each sacrament. Divergent Christian attitudes to sacraments,			
2.2	Liturgical worship within Catholic Christianity: the nature and significance of the Mass for Catholics, including its structure and the Eucharist as the 'source and summit of Christian life'. Divergent Christian attitudes towards the practice and meaning of liturgical worship.			
2.3	The funeral rite as a liturgical celebration of the Church: practices associated with the funeral rite in the home, the church and the cemetery, including reference to 'Preparing my funeral' by Vincent Nichols.			
2.4	Prayer as the 'raising of hearts and minds to God': the nature and significance of different types of prayer; the Lord's Prayer. Set (formulaic) prayers and informal (extempore) prayer; when each type might be used and why.			
2.5	The role and importance of forms of popular piety: the nature and significance of the Rosary, Eucharistic adoration and Stations of the Cross; how each of these might be used and why. Divergent Christian attitudes to these forms of piety.			
2.6	Pilgrimage: the nature, history and purpose of Catholic pilgrimage; the significance of the places people go on pilgrimage; divergent Christian understandings about whether pilgrimage is important for Christians today, with specific reference to Jerusalem, Lourdes, Rome and Walsingham			

2.7	Catholic Social Teaching: how Catholic Social Teaching reflects the teaching to show love of neighbour; Catholic teaching on justice, peace and reconciliation. The inclusion of the poor in society. The work of CAFOD, what it does and why.			
2.8	Catholic mission and evangelism: the history and significance of mission and evangelism for Catholics. Local, National and global evangelism.			

Section 3: Sources of Wisdom and Authority		R	A	G
3.1	The Bible: the development and structure of the Bible as the revealed Word of God: the origins, structure and different literary forms of the Bible. Divergent Christian understandings about which books should be within the Bible			
3.2	Interpretation of the Bible: Catholic interpretation of the Bible and understanding of the meaning of inspiration; divergent interpretations of the authority of the Bible within Christianity: the literal Word of God, the revealed Word of God and as source of guidance and teaching			
3.3	The magisterium of the Church: the meaning, function and importance of the magisterium and why they are important for Catholics today.			
3.4	The Second Vatican Council: the nature, history and importance of the council; the nature and significance of the four key documents for the Church and for Catholic living: Dei Verbum, Lumen Gentium, Sacrosanctum Concilium and Gaudium et Spes			
3.5	The Church as the Body of Christ and the People of God. Why the Church as the Body of Christ and the People of God is important for Catholics today.			
3.6	The meaning of the four marks of the Church: the nature of the Church as one, holy, catholic and apostolic			
3.7	Mary as a model of the Church: as a model of discipleship and as a model of faith and charity.			
3.8	Sources of personal and ethical decision making: the example and teaching of Jesus as the authoritative source for moral teaching; Jesus as fulfilment of the Law. Natural law, conscience and virtue ethics.			
Section 4: Forms of Expression and Ways of Life		R	A	G
4.1	The common and divergent forms of architecture, design and decoration of Catholic churches: how they reflect belief, are used in, and contribute to, worship.			
4.2	The different internal features of a Catholic church. The meaning and significance of the lectern, altar, crucifix and tabernacle and how they express the importance of redemption and facilitate Catholic worship.			
4.3	The meaning and significance of sacred objects, including sacred vessels, sarcophagi, and hunger cloths within Catholicism.			
4.4	The meaning and significance of paintings, fresco and drawings within Catholicism with reference to two specific pieces and Catechism of the Catholic Church			
4.5	The meaning and significance of sculpture and statues with reference to Catechism of the Catholic Church			

4.6	The purpose and use of symbolism and imagery in religious art: the cross, crucifix, fish, ChiRho, dove, Eagle, Alpha and Omega, symbols of the four evangelists; the way this symbolism is used to express belief.			
4.7	The meaning and significance of drama: mystery plays, passion plays; the way drama is used to express belief			
4.8	The nature and use of traditional and contemporary styles of music in worship: hymns, plainchant, psalms and worship. The way different music is used to express belief			

Paper Two: Judaism

Section 1: Jewish Beliefs		R	A	G
1.2	The nature of the Almighty: how the characteristics of the Almighty are shown in the Torah, and why they are important in Jewish life today.			
1.2	The nature and importance of Shekhinah: how the divine presence is shown in the Torah and why it is important. How Jews connect to the Shekhinah today			
1.3	The nature and purpose of the Messiah. The nature and significance of the Messianic Age and the Jewish responsibility to bring it about; divergent understandings of the Messiah in different forms of Orthodox and Reform Judaism.			
1.4	The Covenant at Sinai: the nature and history of the Covenant at Sinai (the Ten Commandments) how and why the Decalogue is important in Jewish life today.			
1.5	The covenant with Abraham and his descendants: the nature and history of the Abrahamic covenant; the role of Abraham in the covenant, including Genesis 17; why the Promised Land covenanted to Abraham and his descendants is important for Jews today			
1.6	Sanctity of life: the nature and importance of Pikuach Nefesh (primacy of life); why human life is holy by Jewish people; how life is shown as special and taking precedence over everything,			
1.7	Moral principles and the Mitzvot: the nature and importance of the Mitzvot. Mitzvot and a relationship with God and other Jews. Mitzvot and free will. Divergent understandings of the importance of the Mitzvot for Jewish life today.			
1.8	Jewish beliefs about life after death: including reference to different forms of Orthodox and Reform Judaism. Jewish teachings about life after death, including the nature of resurrection and judgement and why belief in life after death may be important for Jews today.			
Section 2: Jewish Practices				
1.1	The nature and purpose of Jewish public acts of worship: the importance of synagogue services for the Jewish community and the individual.			
1.2	The Tenakh and the Talmud: the nature, features, purpose and significance of the Tenakh (the written law) and Talmud (the oral law) for Jews in daily life today. The nature and purpose of Jewish laws: food laws, kashrut, including kosher, and treifah and the separation of dairy and meat, the divergent implications of the Jewish food laws for Jews today.			

1.3	The nature and purpose of prayer in the home and of private prayer: the nature, features and purpose of prayer three times a day; the importance of having different forms of prayers.			
1.4	The nature and importance of the Shema and the Amidah (the standing prayer); when the Shema and the Amidah might be used, how and why, including reference to the Mezuzah.			
1.5	The importance of ritual for Jews today: the nature, features and purpose of the birth, marriage, Bar and Bat Mitzvah ceremonies. The nature, purpose and importance of mourning ceremonies; the distinct importance of the funeral, shiva, avelut and yahrzeit for Jews today.			
1.6	The nature, features, history and purpose of celebrating Shabbat. Celebration of Shabbat in the home and in the synagogue, why the celebration of Shabbat is important for the Jewish community and the individual today.			
1.7	Jewish festivals: the nature, history, purpose and significance of Jewish festivals; the origins and meaning of specific festivals, including Rosh Hashanah, Yom Kippur, Pesach, Shavuot and Sukkot.			
1.8	Features of the synagogue: the nature, history and purpose of the different design of the synagogues in Liberal, Reform and Orthodox Judaism, including facing Jerusalem, layout of seating the Ark and the bimah. How and why objects of devotion are used within the synagogues, including a yad, Torah Scroll and ner tamid			

Paper Three: Philosophy and Ethics

Section1: Belief in God				
1.1	Revelation as proof of the existence of God: the significance of Jesus Christ as the culmination of God's revelation; what the revelation of Jesus Christ shows about the nature of God for Catholics.			
1.2	Visions as proof of the existence of God: the nature and importance of visions for Catholics; biblical and non-biblical examples of visions. Reasons why they might lead to belief in God and Catholic responses to non-religious arguments			
1.3	Miracles as proof of the existence of God: the nature and importance of miracles for Catholic biblical and non-biblical examples of miracles, including those at Lourdes. Reasons why they might lead to belief in God and Catholic responses to non-religious arguments			
1.4.	Catholic attitudes towards religious experiences and its use as a philosophical argument for the existence of God:			
1.5	Design argument: the classical design argument for the existence of God. Arguments against the design argument as evidence for the existence of God.			
1.6	Cosmological argument: the cosmological argument for the existence of God, including reference to Thomas Aquinas' First Three Ways of showing God's existence. Catholic responses to non-religious arguments against the cosmological argument as evidence for the existence of God.			
1.7	The problem of evil. Issues raised by the existence of suffering and God as all-loving: the issues it raises for Catholics about the nature of God. How the problem and its basis as a philosophical argument may lead some to examine and others to reject their belief in God.			

1.8	The solutions offered to the problem of suffering and a loving and righteous God within Catholicism: biblical, theoretical and practical responses			
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Section2: Marriage and Family Life in the 21 st Century		R	A	G
2.1	The importance and purpose of marriage for Catholics: the significance of marriage in Catholic life; Catholic teachings about marriage, including Not Just Good, But Beautiful by Pope Francis; divergent Christian, non-religious (including atheist and Humanist) attitudes to the importance of marriage in society, including the sanctity of marriage, a lack of importance, cohabitation and the Catholic responses to these attitudes			
2.2	Catholic teaching about the importance of sexual relationships: Catholic teaching about sexual relationships as marital, unitive and procreative. Catholic teaching on sexual relationships outside of marriage and homosexuality; divergent Christian, non-religious attitudes to sexual relationships, including the acceptance of sexual relationships outside marriage and homosexuality and Catholic responses to them			
2.3	Catholic teaching about the purpose and importance of the family: Catholic teaching about the purpose and importance of families including: procreation; security and education of children; Catholic responses to the different types of family within 21st-century society (nuclear, single parent, same-sex parents, extended and blended families)			
2.4	Support for the family in the local Catholic parish: how and why the local parish tries to support families, including through family worship, the sacraments, classes for parents, groups for children and counselling, with reference to the Family Group Movement			
2.5	Catholic teaching on family planning and the regulation of births: Catholic teaching about artificial contraception and natural family planning. Divergent Christian, non-religious (including atheist and Humanist) attitudes to family planning, including acceptance of artificial methods of contraception by some Protestant Churches and the application of ethical theories, such as situation ethics, and Catholic responses to them.			
2.6	Catholic teaching about divorce, annulment and remarriage: Divergent Christian, non-religious (including atheist and Humanist) attitudes to divorce, annulment and remarriage, including the application of ethical theories, such as situation ethics, and Catholic responses to them.			
2.7	Catholic teaching about the equality of men and women in the family: including the dignity of work within the home; divergent Christian teachings and attitudes about the equality and roles of men and women in the family and Catholic responses to them.			
2.8	Catholic opposition to gender prejudice and discrimination, divergent Christian attitudes to gender differences, including the role of women in the Church, prejudice and discrimination and Catholic responses to them.			

Science (combined)

	Biology	Chemistry	Physics
Paper 1	1hr 15mins	1hr 15mins	1hr 15mins
Paper 2	1hr 15mins	1hr 15mins	1hr 15mins

Combined Biology		
Topic	Bitesize	Video link
B1 Cell biology	Cell biology - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Cell Biology freesciencelessons
B2 Organisation	Organisation - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Organisation freesciencelessons
B3 Infection and response	Infection and response - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Infection and Response freesciencelessons
B4 Bioenergetics	Bioenergetics - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Bioenergetics freesciencelessons
B5 Homeostasis and response	Homeostasis and response - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Homeostasis freesciencelessons
B6 Inheritance, variation and evolution	Ecology - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Inheritance freesciencelessons and Variation and Evolution freesciencelessons
B7 Ecology	Ecology - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Ecology freesciencelessons
Combined Chemistry		
Topic	Bitesize	Video link
C1 Atomic structure and the periodic table	Atomic structure and the periodic table - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Atomic Structure and the Periodic Table freesciencelessons
C2 Bonding, structure, and the properties of matter	Bonding, structure and the properties of matter - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Structure and Bonding freesciencelessons

C4 Chemical changes	Chemical changes - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Chemical Changes freesciencelessons
C5 Energy changes	Energy changes - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Energy Changes freesciencelessons
C7 Organic chemistry	Organic chemistry - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Organic Chemistry freesciencelessons
C8 Chemical analysis	Chemical analysis - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Chemical Analysis freesciencelessons
C9 Chemistry of the atmosphere	Chemistry of the atmosphere - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	The Atmosphere freesciencelessons
C10 Using resources	Using resources - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Resources freesciencelessons

Combined Physics		
Topic	Bitesize	Video link
P1 Energy	Energy - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Energy freesciencelessons
P3 Particle model of matter	Particle model of matter - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Particle Model of Matter freesciencelessons
P4 Atomic structure	Atomic structure - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Atomic Structure and Radioactivity freesciencelessons
P5 Forces	Forces - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Forces freesciencelessons
P6 Waves	Waves - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize	Waves freesciencelessons

Science (triple)

	Biology	Chemistry	Physics
Paper 1	1hr 45mins	1hr 45mins	1hr 45mins
Paper 2	1hr 45mins	1hr 45mins	1hr 45mins

TRIPLE Biology		
Topic	Bitesize	Video link
B1 Cell biology	Cell biology - GCSE Biology (Single Science) Revision - AQA - BBC Bitesize	Cell Biology freesciencelessons
B2 Organisation	Organisation - GCSE Biology (Single Science) Revision - AQA - BBC Bitesize	Organisation freesciencelessons
B3 Infection and response	Infection and response - GCSE Biology (Single Science) Revision - AQA - BBC Bitesize	Infection and Response freesciencelessons
B4 Bioenergetics	Bioenergetics - GCSE Biology (Single Science) Revision - AQA - BBC Bitesize	Bioenergetics freesciencelessons
B5 Homeostasis and response	Homeostasis and response - GCSE Biology (Single Science) Revision - AQA - BBC Bitesize	Homeostasis freesciencelessons
TRIPLE Chemistry		
Topic	Bitesize	Video link
C1 Atomic structure and the periodic table	Atomic structure and the periodic table - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	Atomic Structure and the Periodic Table freesciencelessons
C2 Bonding, structure, and the properties of matter	Bonding, structure and the properties of matter - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	Structure and Bonding freesciencelessons
C5 Energy changes	Energy changes - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	Energy Changes freesciencelessons
C7 Organic chemistry	Organic chemistry - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	Organic Chemistry freesciencelessons

C8 Chemical analysis	Chemical analysis - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	Chemical Analysis freesciencelessons
C9 Chemistry of the atmosphere	Chemistry of the atmosphere - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	The Atmosphere freesciencelessons
C10 Using resources	Using resources - GCSE Chemistry (Single Science) Revision - AQA - BBC Bitesize	Resources freesciencelessons

TRIPLE Physics

Topic	Bitesize	Video link
P1 Energy	Energy - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Energy freesciencelessons
P3 Particle model of matter	Particle model of matter - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Particle Model of Matter freesciencelessons
P4 Atomic structure	Atomic structure - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Atomic Structure and Radioactivity freesciencelessons
P5 Forces	Forces - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Forces freesciencelessons
P8 Space physics	Space physics - GCSE Physics (Single Science) Revision - AQA - BBC Bitesize	Space Physics freesciencelessons