



**JOG School
KS5 Advance
Information
Booklet**

JOG School

KS5 Advance Information

Booklet

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Subject: Applied Science

Exam board: AQA

Level of qualification: Level 3 certificate in Applied Science

Changes to coursework	Optional content																
<p>Unit 2 (ASC2): Applied experimental techniques</p> <p>For ASC2, students can carry out one of each of the Biology (1a or 1b), Chemistry (2a or 2b) and Physics (3a or 3b) investigations – instead of both in each area.</p> <p>Teachers can demonstrate or use simulations of the techniques and processes described in the second Biology (1a or 1b), Chemistry (2a or 2b) and Physics (3a or 3b) investigations.</p> <p>Students will still need to record data and provide evidence for all six investigations in their portfolios to meet the grading criteria. The grading criteria for Unit 2 have been updated to reflect this change</p>	N/A																
Support materials																	
<i>N/A in exam</i>																	
<table border="1"><thead><tr><th></th><th>Unit title</th><th>Assessment type</th><th>Ofqual unit reference</th></tr></thead><tbody><tr><td>1</td><td>Key concepts in science</td><td>Written exam</td><td>J/507/6497</td></tr><tr><td>2</td><td>Applied experimental techniques</td><td>Portfolio</td><td>L/507/6498</td></tr><tr><td>3</td><td>Science in the modern world</td><td>Written exam with pre-release material</td><td>R/507/6499</td></tr></tbody></table>			Unit title	Assessment type	Ofqual unit reference	1	Key concepts in science	Written exam	J/507/6497	2	Applied experimental techniques	Portfolio	L/507/6498	3	Science in the modern world	Written exam with pre-release material	R/507/6499
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1	Key concepts in science	Written exam	J/507/6497														
2	Applied experimental techniques	Portfolio	L/507/6498														
3	Science in the modern world	Written exam with pre-release material	R/507/6499														
Advance Information																	
<p>All details on advance information for Applied Science can be found here: https://www.aqa.org.uk/subjects/science/applied-general/science/changes-for-2022</p>																	

Subject: Art

Exam board: Edexcel

Level of qualification: A Level

Changes to coursework	Optional content
Students only complete one main portfolio. This includes a sketchbook of work and a final piece. The main theme for this project has been set by the students.	Students can also include the first course work project Who am I from year 12 as extra work
Support materials	
N/A but the timeline is: <ul style="list-style-type: none">• Friday 1st April – Sketchbook deadline – books handed in C1 by 2pm• WB 4th April - students start final piece• 9th April- 24th April Easter holiday• WB 25th April students working on final piece• Tuesday 3rd May - Exam (this is an inset day) students need to be in by 830am• Friday 13th May - final piece deadline, hand in by 2pm• Friday 27th May - Final hand in – end of course	
Advance Information	
N/A Some further useful info https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/art-and-design-2015/summer-2022-support.html https://qualifications.pearson.com/content/dam/pdf/A%20Level/Art%20and%20Design/2015/teaching-and-learning-materials/alevel-art-and-design-2022-faqs.pdf	

Subject: AS Biology

Exam board: AQA

Level of qualification: AS (Year 12)

Changes to coursework	Optional content
N/A	N/A
Support materials	
N/A in exams All details on advanced information for AS Biology can be found here: https://filestore.aqa.org.uk/content/summer-2022/AQA-7401-AI-22.PDF	
Advance Information	
<ul style="list-style-type: none">• For each paper the list shows the major focus of the content of the examination; the topic areas are listed in rank order, with the areas carrying the highest mark allocations at the top of each list.• Topics not explicitly given in the list may appear in multiple-choice items, low tariff questions, or via synopticity.• Assessment of practical skills (section 8.3 of the specification) and maths skills (section 6 of the specification) occurs throughout both papers. <p>The inclusion of Required Practicals in the lists below should not be taken to imply direct references to those procedures quoted in the Practical Handbook. They are there to give a general idea of the context in which practical work is being assessed.</p> <p>Paper 1 7401/1</p> <ul style="list-style-type: none">• 3.2.1 Cell structure• 3.2.3 Transport across cell membranes (including Required Practical 3)• 3.2.2 All cells arise from other cells (including Required Practical 2)• 3.2.4 Cell recognition and the immune system• 3.1.4 Proteins• 3.3.4 Mass transport• 3.3.3 Digestion and absorption <p>Paper 2 7401/2</p> <ul style="list-style-type: none">• 3.3.4 Mass transport (including Required Practical 5)• 3.3.2 Gas exchange• 3.1.2 Carbohydrates• 3.4.3 Genetic diversity can arise as a result of mutation or during meiosis• 3.4.7 Investigating diversity• 3.4.5 Species and taxonomy	

Subject: A2 Biology

Exam board: AQA

Level of qualification: A2

Changes to coursework	Optional content
N/A <i>All students need to carry out practical activities in person and will be assessed on the common practical assessment criteria.</i>	N/A
Support materials	
N/A in exams	
All details on advanced information for A-level biology can be found here: https://filestore.aqa.org.uk/content/summer-2022/AQA-7402-AI-22.PDF	
Advance Information	
<ul style="list-style-type: none">• This advance information covers all examined components.• For each paper the list shows the major focus of the content of the examination; the topic areas are listed in rank order, with the areas carrying the highest mark allocations at the top of each list.• Topics not explicitly given in the list may appear in multiple-choice items, low tariff questions, or via synopticity.• Assessment of practical skills (section 8.3 of the specification) and maths skills (section 6 of the specification) occurs throughout the three papers.• It is not permitted to take this advance information into the examination.	
Paper 1 7402/1	
<ul style="list-style-type: none">• 3.2.3 Transport across cell membranes (including Required Practical 3)• 3.2.1 Cell structure• 3.4.4 Genetic diversity and adaptation (including Required Practical 6)• 3.3.2 Gas exchange• 3.1.4 Proteins (including Required Practical 1)• 3.1.2 Carbohydrates• 3.3.4 Mass transport• 3.4.6 Biodiversity within a community	
Paper 2 7402/2	
<ul style="list-style-type: none">• 3.6.4 Homeostasis is the maintenance of a stable internal environment• 3.5.2 Respiration (including Required Practical 9)• 3.6.2 Nervous coordination• 3.5.3 Energy and ecosystems• 3.5.4 Nutrient cycles• 3.7.1 Inheritance• 3.8.2 Gene expression is controlled by a number of features• 3.5.1 Photosynthesis	

Paper 3 7402/3

- 3.5.1 Photosynthesis
- 3.2.2 All cells arise from other cells (including Required Practical 2)
- 3.8.4 Gene technologies allow the study and alteration of gene function allowing a better understanding of organism function and the design of new industrial and medical processes
- 3.6.2 Nervous coordination
- 3.3.4 Mass transport
- 3.4.2 DNA and protein synthesis
- 3.1.4 Proteins
- 3.6.1 Stimuli, both internal and external, are detected and lead to a response

The final question, as always , on 7402/3 will be a choice of two synoptic essays.

- ▶ The level of response mark scheme makes references to 'several topics' being covered in order to qualify for the top two levels.
- ▶ The 'commentary' on the scheme defines 'several' as at least four topic areas.

Level of qualification: A Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
N/A in exams <i>Please see revision materials provided in class</i>	
Advance Information	
<ul style="list-style-type: none"> • This notice covers all examined components • For each paper the list shows the major focus of the content of the exam. • Students will be expected to apply their knowledge to unfamiliar contexts • Students will be expected to draw on knowledge, skills and understanding from across the specification when responding to synoptic questions. 	
<p>A-level Business Paper 1 (7132/1)</p> <p>3.1.2 Understanding different business forms</p> <p>3.1.3 Understanding that businesses operate within an external environment</p> <p>3.2.2 Understanding management decision making</p> <p>3.2.3 Understanding the role and importance of stakeholders</p> <p>3.3.1 Setting marketing objectives</p> <p>3.3.3 Making marketing decisions: segmentation, targeting, positioning</p> <p>3.3.4 Making marketing decisions: using the marketing mix</p> <p>3.4.3 Making operational decisions to improve performance: increasing efficiency and productivity</p> <p>3.4.4 Making operational decisions to improve performance: improving quality</p> <p>3.5.1 Setting financial objectives</p> <p>3.5.2 Analysing financial performance</p> <p>3.5.3 Making financial decisions: sources of finance</p> <p>3.5.4 Making financial decisions: improving cash flow and profits</p> <p>3.6.2 Analysing human resource performance</p> <p>3.6.3 Making human resource decisions: improving organisational design and managing the human resource flow</p> <p>3.7.1 Mission, corporate objectives and strategy</p> <p>3.7.2 Analysing the existing internal position of a business to assess strengths and weaknesses: financial ratio analysis</p> <p>3.7.3 Analysing the existing internal position of a business to assess strengths and weaknesses: overall performance</p> <p>3.7.4 Analysing the external environment to assess opportunities and threats: political and legal change</p> <p>3.8.1 Strategic direction: choosing which markets to compete in and what products to offer</p> <p>3.8.2 Strategic positioning: choosing how to compete</p> <p>3.9.1 Assessing a change in scale</p> <p>3.9.4 Assessing greater use of digital technology</p> <p>3.10.1 Managing change</p> <p>3.10.3 Managing strategic implementation</p> <p>3.10.4 Problems with strategy and why strategies fail</p>	
<p>Quantitative Skills</p> <p>Calculate, use and understand ratios, averages and fractions</p> <p>Calculate, use and understand percentages and percentage changes</p> <p>Construct and interpret a range of standard graphical forms</p> <p>Calculate cost, revenue, profit and break-even</p> <p>Interpret, apply and analyse information in written, graphical and numerical forms</p>	

A-level Business Paper 2 (7132/2)

3.1.2 Understanding different business forms

3.3.1 Setting marketing objectives

3.3.2 Understanding markets and customers

3.3.3 Making marketing decisions: segmentation, targeting, positioning

3.3.4 Making marketing decisions: using the marketing mix

3.4.5 Making operational decisions to improve performance: managing inventory and supply chains

3.6.4 Making human resource decisions: improving motivation and engagement

3.7.5 Analysing the external environment to assess opportunities and threats: economic change

3.8.1 Strategic direction: choosing which markets to compete in and what products to offer

3.9.1 Assessing a change in scale

3.10.4 Problems with strategy and why strategies fail

Quantitative Skills

Calculate, use and understand percentages and percentage

changes Construct and interpret a range of standard graphical

forms Interpret values of price and income elasticity of demand

Use and interpret quantitative and non-quantitative information in order to make

decisions Interpret, apply and analyse information in written, graphical and numerical

forms

A-level Business Paper 3 (7132/3)

3.2.3 Understanding the role and importance of stakeholders

3.3.4 Making marketing decisions: using the marketing mix

3.5.2 Analysing financial performance

3.5.3 Making financial decisions: sources of finance

3.5.4 Making financial decisions: improving cash flow and profits

3.9.1 Assessing a change in scale

3.9.2 Assessing innovation

3.10.2 Managing organisational culture

3.10.3 Managing strategic implementation

3.10.4 Problems with strategy and why strategies fail

Quantitative Skills

Calculate, use and understand ratios, averages and fractions

Calculate, use and understand percentages and percentage

changes Construct and interpret a range of standard graphical

forms

Use and interpret quantitative and non-quantitative information in order to make

decisions Interpret, apply and analyse information in written, graphical and numerical

forms

All details on advanced information for A Level Business can be found

here: <https://filestore.aqa.org.uk/content/summer-2022/AQA-7132->

[AI-22.PDF](https://filestore.aqa.org.uk/content/summer-2022/AQA-7132-AI-22.PDF)

Subject: A2 Chemistry

Exam board: OCR A

Level of qualification: A2 Level

Changes to coursework	Optional content
<i>Students will have observed or carried out PAG activities in line with the practical endorsement for the course</i>	N/A
Support materials	
N/A in exams All details on advanced information for AS Level Chemistry can be found here: https://www.ocr.org.uk/qualifications/2022-advance-information/	
Advance Information	
<ul style="list-style-type: none">• This notice covers all examined components.• Assessment of practical skills and maths skills will occur throughout the papers.• The format/structure of the papers remains unchanged.• For each paper the list shows the major focus of the content of the exam.• Students are advised that content not listed may appear on the question paper therefore all content will be covered.• The information lists topic areas in rank order, with the areas carrying the highest mark allocations at the top of each list.	
<u>H432/01 Periodic table, elements and physical chemistry (13th June 2022)</u>	
<ul style="list-style-type: none">• Amount of substance (includes practical skills)• Transition elements• Acids, bases and buffers (includes practical skills)• Periodicity• Enthalpy changes (includes practical skills)• How fast?• Enthalpy and entropy• Acids (includes practical skills)	
<u>H432/02 Synthesis and analytical techniques (20th June 2022)</u>	
<ul style="list-style-type: none">• Amount of substance (includes practical skills)• Alkenes• Spectroscopy• Aromatic compounds• Organic synthesis (includes practical skills)• Carbonyl compounds (includes practical skills)• Basic concepts of organic chemistry• Analytical techniques• Polyesters and polyamides	
<u>H432/03 Unified chemistry (27th June 2022)</u>	
<ul style="list-style-type: none">• Amount of substance (includes practical skills)• Redox and electrode potentials (includes practical skills)• Chemical equilibrium (includes practical skills)	

- Basic concepts of organic chemistry
- Organic synthesis (includes practical skills)
- Acids, bases and buffers
- Lattice enthalpy (includes practical skills)
- Amino acids, amides and chirality
- Spectroscopy

Subject: AS Level Chemistry

Exam board: OCR A

Level of qualification: AS Level

Changes to coursework	Optional content
N/A <i>Students will continue to progress through the PAG activities, endorsement is unaffected.</i>	N/A
Support materials	
N/A in exams All details on advanced information for AS Level Chemistry can be found here: https://www.ocr.org.uk/qualifications/2022-advance-information/	
Advance Information	
<ul style="list-style-type: none">• This notice covers all examined components.• Assessment of practical skills and maths skills will occur throughout the papers.• The format/structure of the papers remains unchanged.• For each paper the list shows the major focus of the content of the exam.• Students are advised that content not listed may appear on the question paper therefore all content will be covered.• The information lists topic areas in rank order, with the areas carrying the highest mark allocations at the top of each list.	
H032/01 Breadth in Chemistry (17th May 2022):	
<ul style="list-style-type: none">• <u>Amount of substance (includes practical skills)</u>• Alkenes• Periodicity• Enthalpy changes (includes practical skills)• The halogens (includes practical skills)• Bonding and structure• Haloalkanes	
H032/02 Depth in Chemistry (27th May 2022):	
<ul style="list-style-type: none">• <u>Acids (includes practical skills)</u>• Reaction rates (includes practical skills)• Amount of substance (includes practical skills)• Chemical equilibrium• Group 2• Enthalpy changes• Alkanes	

Changes to coursework		Optional content
<i>No changes have been applied for coursework</i>		N/A
Support materials		
<i>N/A in exams</i> <i>Please see revision links on Class charts for the group.</i>		
Advance Information		
<ul style="list-style-type: none"> This notice covers component H446/01 Computer Systems and H446/02 Computational Thinking and Algorithms. The topics identified in the Advanced information below will be in the exam paper. Any topic not identified that can be linked to those topics may be in the exam 		
H446/01		
Specification reference	Name of topic	Sub part of topic directly assessed in some form
1.1.1	Structure and function of the processor	(b) The Fetch-Decode-Execute Cycle, including its effect on registers (d) The use of pipelining in a processor to improve efficiency (e) Von Neumann, Harvard and contemporary processor architecture
1.1.2	Types of processor	(a) The differences between and uses of CISC and RISC processors
1.2.1	Systems Software	(d) Scheduling: round robin, first come first served, multi-level feedback queues, shortest job first and shortest remaining time
1.2.2	Applications Generation	(d) Translators: Interpreters, compilers and assemblers (e) Stages of compilation (lexical analysis, syntax analysis, code generation and optimisation)
1.2.4	Types of Programming Language	(c) Assembly language (including following and writing simple programs with the Little Man Computer instruction set). See appendix 5d
1.3.2	Databases	(d) SQL – Interpret and modify. See appendix 5d (f) Transaction processing, ACID (Atomicity, Consistency, Isolation, Durability), record locking and redundancy
1.3.3	Networks	(b) The internet structure: <ul style="list-style-type: none"> The TCP/IP Stack
1.4.1	Data Types	(f) Convert positive integers between Binary Hexadecimal and denary (g) Representation and normalisation of floating point numbers in binary (j) How character sets (ASCII and UNICODE) are used to represent text

Specification reference	Name of topic	Sub part of topic directly assessed in some form
2.1.1	Thinking abstractly	(a) The nature of abstraction (b) The need for abstraction
2.1.2	Thinking ahead	(c) The nature, benefits and drawbacks of caching (d) The need for reusable program components
2.2.1	Programming techniques	(b) Recursion, how it can be used and compares to an iterative approach (c) Global and local variables d) Modularity, functions and procedures, parameter passing by value and by reference (e) Use of an IDE to develop/debug a program (f) Use of object oriented techniques
2.2.2	Computational methods	(f) Learners should apply their knowledge of: <ul style="list-style-type: none"> • performance modelling • visualisation to solve problems
2.3.1	Algorithms	(e) Algorithms for the main data structures, (stacks, queues, trees, linked lists, depth-first (post-order) and breadth-first traversal of trees)

All details on advanced information for A level Computer Science can be found here: <https://www.ocr.org.uk/qualifications/2022-advance-information/>

Level of qualification: AS Level

Changes to coursework	Optional content
<i>No changes have been applied for coursework</i>	N/A

Support materials

Please see revision links on Class charts for the group.

Advance Information

- This notice covers component H046/01 Computer Systems and H046/02 Computational Thinking and Algorithms.
- The topics identified in the Advanced information below will be in the exam paper.
- Any topic not identified that can be linked to those topics may be in the exam

H046/01

Specification reference	Name of topic	Sub part of topic directly assessed in some form
1.1.1	Structure and function of the processor	(d) Von Neumann, Harvard and contemporary processor architecture
1.2.1	Operating Systems	(f) BIOS
1.2.2	Applications generation	(b) Utilities (c) Open source vs closed source
1.3.2	Networks	(b) Internet structure: <ul style="list-style-type: none"> • The TCP/IP stack • Protocol layering
1.4.1	Data Types	(c) Use of sign and magnitude and two's complement to represent negative numbers in binary (e) Represent positive integers in hexadecimal
1.4.3	Boolean Algebra	(a) Define problems using Boolean logic. See appendix 5d (b) Manipulate Boolean expressions, including the use of Karnaugh maps to simplify Boolean expressions

H046/02

Specification reference	Name of topic	Sub part of topic directly assessed in some form
2.1.2	Thinking ahead	(c) The need for reusable program components
2.1.3	Thinking procedurally	(a) Identify the components of a problem (d) Identify sub-procedures necessary to solve a problem
2.1.4	Thinking logically	(a) Identify the points in a solution where a decision has to be taken
2.2.1	Programming techniques	(a) Programming constructs: sequence, iteration, branching (c) Modularity, functions and procedures, parameter passing by value and reference
2.2.2	Software Development	(a) Understand the waterfall lifecycle, agile methodologies, extreme programming, the spiral model and rapid application development (d) Different test strategies, including black and white box testing and alpha and beta testing

All details on advanced information for A level Computer Science can be found here: <https://www.ocr.org.uk/qualifications/2022-advance-information/>

Subject: English Literature

Exam board: AQA

Level of qualification: A Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
N/A	
Advance Information	
<p><i>There is no advance information for Paper 2.</i></p> <p>Paper 1:</p> <p>The extract used in Section A will be from Act 1 of King Lear.</p> <p>The advanced information for English Literature can be found here: https://filestore.aqa.org.uk/content/summer-2022/AQA-7717-AI-22.PDF</p>	

Changes to coursework	Optional content
N/A	N/A
Support materials	
Please see those given for A-Level Maths.	
Advance Information	
<p>The details below show the topics that the exam board have said will be in the exam. However, for maths they have added the caveat that questions that look at problem solving and can need use a range of skills, knowledge and understanding, can include anything that was due to be that year. Therefore, nothing can be assumed to NOT be in the exam.</p> <p>In the case of Year 13 courses, the exam board is assuming that all of the Year 12 content can be examined.</p> <p>Whilst the syllabus for Year 12 compulsory further maths is called Core Pure 1, and for Year 13 Core Pure 2, the exams, whilst sharing these descriptions, merge the topics from both years. The topic list provided by the exam board for this year suggests that vectors and proof will not be examined until the Core Pure 2 (second) exam.</p> <p>Paper 9FM0/01 Further Mathematics Core Pure 1</p> <ul style="list-style-type: none"> • Complex numbers: Multiplication and division, conjugates • Complex numbers: Roots of polynomial equations, Argand diagram • De Moivre's theorem; Volumes of revolution • Matrices: Inverse of a 3×3 matrix, singular and non-singular • Method of differences for summation of finite series • Improper integrals; Hyperbolic functions • Integration; Partial fractions • Inverse hyperbolic functions • Solution of first order differential equations • Solution of second order non-homogenous differential equations <p>Paper 9FM0/02 Further Mathematics Core Pure 2</p> <ul style="list-style-type: none"> • Proof by induction; Use matrices to represent linear transformations in 2-D • Complex numbers: Multiplication and division • Complex numbers; Addition and subtraction; simple loci in the Argand diagram • Matrices: Solution of three simultaneous equations • The relationship between roots and coefficients of polynomial equations • Differentiate inverse trigonometric functions • Vectors; Equation of a straight line, scalar product, perpendicular distance from a point to a plane • Polar coordinates: Area enclosed by a curve, tangents • Differentiation of hyperbolic functions; Maclaurin series 	

Paper 9FM0/3A Further Pure Mathematics 1

- r -formulae
- Taylor series, limits, L'Hospital's Rule
- Differential equations reducible by means of a given substitution
- Coordinate systems: Ellipse and hyperbola
- Coordinate systems: Rectangular hyperbola
- Vector product
- Vector equations of planes
- Numerical solution of first order differential equations
- Algebraic inequalities and inequations including the modulus sign

Paper 9FM0/3D Decision Mathematics 1

- Bin packing
- Sorts; Flow charts
- Dijkstra's algorithm; Shortest inspection route around a network.
- Floyd's algorithm; Nearest neighbour algorithm
- Critical Path Analysis including Gantt charts and resource histograms
- Formulating and using Simplex to solve a linear programme
- Big-M method

Subject: AS Further Mathematics

Exam board: EDEXCEL

Level of qualification: AS-Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
Please see those given for A-Level Maths.	
Advance Information	
<p>The details below show the topics that the exam board have said will be in the exam. However, for maths they have added the caveat that questions that look at problem solving and can need use a range of skills, knowledge and understanding, can include anything that was due to be that year. Therefore, nothing can be assumed to NOT be in the exam.</p> <p>The additional information does not give any indication that particular topics or parts of topics will not be examined.</p> <p>Paper 8FM0/01 Further Mathematics Core Pure</p> <ul style="list-style-type: none">• Proof by induction• Complex numbers: Loci in the Argand diagram. Knowledge of radians is assumed• Matrices: Solution of three linear simultaneous equations in three variables• Matrix representation of simple transformations in 3-D• The relationship between roots and coefficients of polynomial equations• Understand and use formulae for the sums of integers, squares and cubes and use these to sum other series• Volumes of revolution• Vectors: Straight lines and planes, scalar product <p>Paper 8FM0/21 Further Pure Mathematics 1</p> <ul style="list-style-type: none">• t-formulae• Coordinate systems: The parabola; Simple loci• Vector product: Scalar triple product• Numerical solution of first order differential equations• Solution of algebraic inequalities <p>Paper 8FM0/27 Decision Mathematics 1</p> <ul style="list-style-type: none">• Sorts, minimum spanning tree• Shortest inspection route around a network, Dijkstra's algorithm, language of graphs• Modelling a project from a precedence table• Interpreting and solving a two-variable graphical linear programme	

Subject: Geography

Exam board: AQA

Level of qualification: A Level

Changes to coursework	Optional content
No changes to the NEA	N/A
Support materials	
N/A in exams	
<ol style="list-style-type: none">1. Lesson PowerPoints will be placed on the p:/2. The Changing Places Course book will be made available again3. PLC's for Global Governance and Population and the Environment	
Advance Information	
The information provided below is also available from the AQA website: https://filestore.aqa.org.uk/content/summer-2022/AQA-7037-AI-22.PDF	
The following information has been provided by the exam board:	
This advance information covers all examined components.	
<ul style="list-style-type: none">• This advance information mainly identifies the required AO1 content that will be assessed in this paper, as well as the required geographical skills.• Due to the synoptic nature of the geographical content, the aims of the specification and its design, there are in places large proportions of content identified.• It is not permitted to take this notice into the examination.	
<u>7037/1: Physical Geography</u>	
<u>3.1.1 Water and carbon cycles</u>	
3.1.1.1 Water and carbon cycles as natural systems	
Systems in physical geography: systems concepts and their application to the water and carbon cycles – inputs, outputs, energy, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium.	
3.1.1.3 The carbon cycle	
Global distribution, and size of major stores of carbon – lithosphere, hydrosphere, cryosphere, biosphere, atmosphere.	
Factors driving change in the magnitude of these stores over time and space, including flows and transfers at plant, sere and continental scales. Photosynthesis, respiration, decomposition, combustion, carbon sequestration in oceans and sediments, weathering.	
The carbon budget and the impact of the carbon cycle upon land, ocean and atmosphere, including global climate.	
Changes in the carbon cycle over time, to include natural variation (including wild fires, volcanic activity) and human impact (including hydrocarbon fuel extraction and burning, farming practices, deforestation, land use changes).	
The carbon budget and the impact of the carbon cycle upon land, ocean and atmosphere, including global climate	
3.1.1.4 Water, carbon, climate and life on Earth	
The key role of the carbon and water stores and cycles in supporting life on Earth with particular reference to climate. The relationship between the water cycle and carbon cycle in the atmosphere.	
The role of feedbacks within and between cycles and their link to climate change and	

implications for life on Earth.

Human interventions in the carbon cycle designed to influence carbon transfers and mitigate the impacts of climate change.

3.1.3 Coastal systems and landscapes

3.1.3.1 Coasts as natural systems

Systems in physical geography: systems concepts and their application to the development of coastal landscapes – inputs, outputs, energy, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium. The concepts of landform and landscape and how related landforms combine to form characteristic landscapes.

3.1.3.2 Systems and processes

Sources of energy in coastal environments: winds, waves (constructive and destructive), currents and tides. Low energy coasts.

Sediment sources, cells and budgets.

Geomorphological processes: weathering, erosion, transportation and deposition.

3.1.3.3 Coastal landscape development

Origin and development of landforms and landscapes of coastal deposition.

Estuarine mudflat/saltmarsh environments and associated landscapes; factors and processes in their development.

Coastlines of emergence and submergence. Origin and development of associated landforms: fjords.

Recent and predicted climatic change and potential impact on coasts.

3.1.3.4 Coastal management

Human intervention in coastal landscapes. Traditional approaches to coastal flood and erosion risk: hard and soft engineering. Sustainable approaches to coastal flood risk and coastal erosion management: shoreline management/integrated coastal zone management.

3.1.3.6 Case studies

Case study of a contrasting coastal landscape beyond the UK to illustrate and analyse how it presents risks and opportunities for human occupation and development and evaluate human responses of resilience, mitigation and adaptation.

3.1.5 Hazards

3.1.5.2 Plate tectonics

Destructive, constructive and conservative plate margins. Characteristic processes: seismicity and volcanicity.

3.1.5.3 Volcanic hazards

The nature of volcanicity and its relation to plate tectonics: forms of volcanic hazard: nuées ardentes, lava flows, mudflows, pyroclastic and ash fallout, gases/acid rain, tephra. Spatial distribution, magnitude, frequency, regularity and predictability of hazard events. Impacts: primary/secondary, environmental, social, economic, political. Short- and long-term responses: risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impacts and human responses as evidenced by a recent volcanic event.

3.1.5.4 Seismic hazards

The nature of seismicity and its relation to plate tectonics: forms of seismic hazard: earthquakes, shockwaves, tsunamis, liquefaction, landslides. Spatial distribution, randomness, magnitude, frequency, regularity, predictability of hazard events. Impacts: primary/secondary; environmental, social, economic, political. Short and long-term responses; risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impacts and human responses as evidenced by a recent seismic event.

3.1.5.5 Storm hazards

The nature of tropical storms and their underlying causes. Forms of storm hazard: high winds, storm surges, coastal flooding, river flooding and landslides. Spatial distribution, magnitude, frequency, regularity, predictability of hazard events.

Impacts: primary/secondary, environmental, social, economic, political.

Short- and long-term responses: risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impacts and human responses as evidenced by two recent tropical storms in contrasting areas of the world.

3.1.5.6 Fires in nature

Characteristic human responses to wildfires – fatalism, prediction, adjustment/adaptation, mitigation, management, risk sharing – and their relationship to hazard incidence, intensity, magnitude, distribution and level of development.

Nature of wildfires. Conditions favouring intense wildfires: vegetation type, fuel characteristics, climate and recent weather and fire behaviour. Causes of fires: natural and human agency. Short and long-term responses; risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impact and human responses as evidenced by a recent wildfire event.

3.4.2 Specific skills

3.4.2.1. Core Skills

- Use and annotation of illustrative and visual material: base maps, sketch maps, OS maps (at a variety of scales), diagrams, graphs, field sketches, photographs, geospatial, geolocated and digital imagery.

- Literacy – use of factual text and discursive/creative material and coding techniques when analysing text.

- Numeracy – use of number, measure and measurement.

3.4.2.2 Cartographic skills

- Maps with located proportional symbols.

- Maps showing spatial patterns – choropleth, isoline and dot maps.

3.4.2.3 Graphical skills

- Line graphs – simple, comparative, compound and divergent.

- Bar graphs – simple, comparative, compound and divergent.

- Pie charts and proportional divided circles.

7037/2: Human Geography

3.2.1 Global systems and global governance

3.2.1.1 Globalisation

Factors in globalisation: the development of technologies, systems and relationships, including financial, transport, security, communications, management and information systems and trade agreements.

3.2.1.2 Global systems

Issues associated with interdependence including how:

- unequal flows of people, money, ideas and technology within global systems can sometimes act to promote stability, growth and development but can also cause inequalities, conflicts and injustices for people and places.

3.2.1.3 International trade and access to markets

Global features and trends in the volume and pattern of international trade and investment associated with globalisation.

The nature and role of transnational corporations (TNCs), including their spatial organisation, production, linkages, trading and marketing patterns.

World trade in at least one food commodity or one manufacturing product.

Analysis and assessment of the geographical consequences of global systems to specifically consider how international trade and variable access to markets underly and impacts on students' and other people's lives across the globe.

3.2.1.4 Global governance

Issues associated with attempts at global governance, including how:

- agencies, including the UN in the post-1945 era, can work to promote growth and stability but may also exacerbate inequalities and injustices
- interactions between the local, regional, national, international and global scales are fundamental to understanding global governance.

3.2.1.5.1 Antarctica as a global common

Threats to Antarctica arising from: fishing and whaling.

3.2.1.6 Globalisation critique

The impacts of globalisation to consider the benefits of growth, development, integration, stability against the costs in terms of inequalities, injustice, conflict and environmental impact.

3.2.2 Changing Places

3.2.2.1 The nature and importance of places

The concept of place and the importance of place in human life and experience

Categories of place: experienced places and media places.

Factors contributing to the character of places:

- Endogenous: location, topography, physical geography, land use, built environment and infrastructure, demographic and economic characteristics.

3.2.2.2.1 Relationships and connections

How the demographic, socio-economic and cultural characteristics of places are shaped by shifting flows of people, resources, money and investment, and ideas at all scales from local to global.

How past and present connections, within and beyond localities, shape places and embed them in the regional, national, international and global scales.

3.2.2.2.2 Meaning and representation

The importance of the meanings and representations attached to places by people with a particular focus on people's lived experience of place in the past and at present.

- How humans perceive, engage with and form attachments to places and how they present and represent the world to others, including the way in which everyday place meanings are bound up with different identities, perspectives and experiences.
- How external agencies, including governments, corporate bodies and community or local groups make attempts to influence or create specific place-meanings and thereby shape the actions and behaviours of individuals, groups, businesses and institutions.
- How places may be represented in a variety of different forms such as advertising copy, tourist agency material, local art exhibitions in diverse media (eg film, photography, art, story, song etc) that often give contrasting images to that presented formally or statistically such as cartography and census data.
- How both past and present processes of development can be seen to influence the social and economic characteristics of places and so be implicit in present meanings.

3.2.2.3 Quantitative and qualitative skills

Students must engage with a range of quantitative and qualitative approaches across the theme as a whole. Quantitative data, including the use of geospatial data, must be used to investigate and present place characteristics, particular weight must be given to qualitative approaches involved in representing place, and to analysing critically the impacts of different media on place

meanings and perceptions. The use of different types of data should allow the development of critical perspectives on the data categories and approaches.

3.2.2.4 Place studies

Local place study exploring the developing character of a place local to the home or study centre.
Contrasting place study exploring the developing character of a contrasting and distant place.
Place studies must apply the knowledge acquired through engagement with prescribed specification content and thereby further enhance understanding of the way students' own lives and those of others are affected by continuity and change in the nature of places. Sources must include qualitative and quantitative data to represent places in the past and present.

3.2.4 Population and the environment

3.2.4.1 Introduction

The environmental context for human population characteristics and change. Key elements in the physical environment: climate, soils, resource distributions including water supply. Key population parameters: distribution, density, numbers, change. Key role of development processes. Global patterns of population numbers, densities and change rates.

3.2.4.2 Environment and population

Global and regional patterns of food production and consumption. Agricultural systems and agricultural productivity. Relationship with key physical environmental variables – climate. Characteristics and distribution of two major climatic types to exemplify relationships between climate and human activities and numbers. Climate change as it affects agriculture. Strategies to ensure food security.

3.2.4.3 Environment, health and well-being

Global patterns of health, mortality and morbidity. Economic and social development and the epidemiological transition.

The relationship between environment variables eg climate, topography (drainage) and incidence of disease. Air quality and health. Water quality and health.

The global prevalence, distribution, seasonal incidence of one specified biologically transmitted disease, eg malaria; its links to physical and socio-economic environments including impacts of environmental variables on transmission vectors. Impact on health and well-being. Management and mitigation strategies.

The global prevalence and distribution of one specified non-communicable disease, eg a specific type of cancer, coronary heart disease, asthma; its links to physical and socio-economic environment including impacts of lifestyles. Impact on health and well-being. Management and mitigation strategies.

Role of international agencies and NGOs in promoting health and combating disease at the global scale.

3.2.4.4 Population change

International migration: health and political implications of migration.

3.2.4.5 Principles of population ecology and their application to human populations

Perspectives on population growth and its implications: Malthus.

3.2.4.6 Global population futures

Health impacts of global environmental change: ozone depletion – skin cancer, cataracts; climate change – thermal stress, emergent and changing distribution of vector borne diseases, agricultural productivity and nutritional standards.

Prospects for the global population. Projected distributions. Critical appraisal of future population environment relationships.

3.2.4.7 Case studies

Case-study knowledge and understanding of patterns of health and morbidity related to physical and socio-economic characteristics at a local-scale

Subject: History

Exam board: OCR

Level of qualification: A LEVEL

Changes to coursework	Optional content
N/A	N/A
Support materials	
N/A in exams	
https://www.ocr.org.uk/qualifications/past-paper-finder/	
Advance Information	
TUDORS	
Key Topic	Content
The stability of the monarchy	Issues of Edward VI's age and Mary Tudor's gender, marriage of Mary Tudor and Philip; the Devises for the succession in 1553 and the succession in 1558; faction and its impact during the rule of Somerset and Northumberland; factional conflict between Paget and Gardiner under Mary.
Elizabeth and religion	The religious situation and problems in 1558; the foreign situation and its impact on religious developments; the Elizabethan Religious Settlement; the Puritan challenge and aims, support for Puritanism, the influence of Puritan leaders, attempts to change the church, the MP's tactics, separatism; the attitude of Elizabeth's archbishops; the Catholic threat and its nature, the increased threat after 1568, government reaction, the Northern Rebellion (1569), Papal excommunication (1570), Mary Queen of Scots, plots, seminary priests, Jesuits; the problems facing Catholics 1558–1589.
The nature of the Elizabethan Monarchy, Government and Parliament	The role of the court, ministers and Privy Council, including the role and influence of William Cecil; Elizabeth's use and management of faction; the role of gender; the roles of the House of Commons and Lords; Parliament's relationship with the Queen; the attitudes of Elizabeth, the Privy Council and Parliament to the issues of marriage, succession and parliamentary privilege; the impact of marriage and succession on domestic and foreign affairs; the impact of Mary Queen of Scots and James VI.
GERMANY	
Key Topic	Content
The establishment and development of the Weimar Republic: 1919–Jan 1933	Consequences of the First World War; impact of the Treaty of Versailles; the Weimar Constitution; coalition governments; challenges to Weimar; Communist revolts, Kapp Putsch, Munich Putsch, invasion of the Ruhr, hyperinflation; Stresemann and the 'Golden Years'; Dawes and Young Plans, economic recovery, foreign loans, political stability, improvements to working and living conditions; the impact of the Great Depression, elections and governments 1928–1933; rise and appeal of Nazism, role of propaganda and Hitler; Papen, Schleicher and 'backstairs intrigue'; Hitler's appointment as Chancellor

The establishment of the Nazi Dictatorship and its domestic policies
Feb 1933– 1939

Hitler's consolidation of power, the Reichstag Fire, March Elections and Enabling Act, Gleichschaltung, creation of the one-party state, Night of the Long Knives, army oath and death of Hindenburg; system of government and administration; censorship and propaganda, machinery of terror, including courts, SS, Gestapo; treatment of opposition; religious policies; economic policies, Schacht's New Plan, Goering's Four Year Plan, public works, conscription and autarky; German Labour Front; 'Strength through Joy'; policy towards women; education and policy towards youth; racial policies to 1939; benefits of Nazi rule.

The impact of war and defeat on Germany: 1939–1949

The war economy and Total War; impact of bombing; war and racial policies, the Final Solution; morale and rationing; opposition and resistance; consequences of the Second World War; Cold War, Potsdam, division of Germany, Bizonia and developments in the Soviet Zone, currency and the Berlin Blockade.

US CIVIL RIGHTS

Key Topic

Content

African Americans

Their position in 1865, Reconstruction, white reaction and discrimination; the role of African Americans in gaining civil rights (e.g. Booker T Washington, Dubois, Martin Luther King, the Black Panthers); the roles of Federal (Presidents, Congress and Supreme Court) and State governments in the struggle; the role of anti and pro-civil rights groups; the Civil Rights Movement to 1992.

Native American Indians

Their position in 1865; the impact of the Plains Wars (1854–1877); the impact of the Dawes Act 1887, of the acquisition of US citizenship 1924, of the New Deal, of the American Indian Movement in the 1960s and 1970s; Native Americans and the Supreme Court; Native American pressure groups

Women

Their position in 1865; the impact on women's rights of the campaign for prohibition; the campaign for women's suffrage; the New Deal; the World Wars; the rise of feminism and its opponents, Roe v Wade 1973, the campaign for the Equal Rights Amendment; changing economic and employment opportunities.

Civil rights in the 'Gilded Age'
c.1875– c.1895

Nature and extent of progress in civil rights in this era; the varied impact of industrialisation on women, African-Americans and workers, and the nature and effectiveness of their responses; nature and effectiveness of government policy towards civil rights issues including varying attitudes of Presidents, Congress and Supreme Court and State governments; the impact of Westward Expansion on civil rights: Native American Indians, women, workers and African Americans; nature and extent of north-south and east-west divides as they relate to civil rights.

All details on advanced information for GCE HISTORY can be found here:

<https://www.ocr.org.uk/qualifications/2022-advance-information/>

Subject: Law

Exam board: OCR

Level of qualification: A Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
<i>N/A in exam</i>	
Advance Information	
Paper 1	
The Civil Courts and ADR	G
The Criminal Courts and lay people	G
Legal personnel	G
Access to justice	R
General elements of criminal liability	A
Fatal offences against the person	A
Non-fatal offences against the person	A
Offences against property	A
Mental capacity defences	A
General defences	A
Attempts	A
Evaluation – self- defence and consent	G
Evaluation – non-fatal offences, intoxication,	R
Paper2	
Parliamentary law-making	R
Delegated legislation	G
Statutory interpretation	G
Judicial precedent	R
Law reform	R
European Union law	R
Liability in negligence	A
Occupiers' liability	A
Torts connected to land	A
Vicarious liability	A
Defences	A
Remedies	A
Evaluation – Occupiers' liability	G
Evaluation – negligence and vicarious liability	R
Paper 3	
Introduction to the nature of law	R
Law and morality	G
Law and justice	G
Law and society	R
Human rights law – rules and theory	A
Protection of the individual's human rights and freedoms in the UK	A
Key provisions of the European Convention on Human Rights	A
Human rights and English law	A
Enforcement of human rights law	A
Evaluation of formation	G

Key

Major focus	G
Could be assessed	A
Not assessed	R

All details on advanced information for A Level Law can be found here:

<https://ocr.org.uk/subjects/law-government-politics/>

Subject: A2 Mathematics

Exam board: EDEXCEL

Level of qualification: A-Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
<p>Students all have access to the Pearson/Edexcel 'Active Learn' website. This covers content, has questions and worked solutions: https://www.pearsonactivelearn.com/app/Home</p> <p>The website 'Exam Solutions' at www.examsolutions.net also gives worked solutions to exam questions.</p> <p>All students have been set up to be able to access the 'Hegarty Maths' website: https://hegartymaths.com/student-resources. They have a series of 26 lessons which aim to consolidate the key skills needed in the sixth form that were met in Year 11. A playlist for all of the lessons can be found on YouTube (Click here), whilst links to the lessons are:</p> <ul style="list-style-type: none">• Lesson 1: Simplifying surds (With workings Without workings)• Lesson 2: Expanding brackets with surds (With workings Without workings)• Lesson 3: Rationalising surds (1) (With workings Without workings)• Lesson 4: Rationalising surds(2) (With workings Without workings)• Lesson 5: Laws of indices (1) (With workings Without workings)• Lesson 6: Laws of indices(2) (With workings Without workings)• Lesson 7: Laws of indices(3) (With workings Without workings)• Lesson 8: Laws of indices(4) (With workings Without workings)• Lesson 9: Manipulating powers (1) (With workings Without workings)• Lesson 10: Manipulating powers (2) (With workings Without workings)• Lesson 11: Manipulating powers (3) (With workings Without workings)• Lesson 12: Manipulating powers (4) (With workings Without workings)• Lesson 13: Manipulating powers (5) (With workings Without workings)• Lesson 14: Exponential equations (1) (With workings Without workings)• Lesson 15: Exponential equations (2) (With workings Without workings)• Lesson 16: Exponential equations (3) (With workings Without workings)• Lesson 17: Exponential equations (4) (With workings Without workings)• Lesson 18: Gradient of a line (1) (With workings Without workings)• Lesson 19: Gradient of a line (2) (With workings Without workings)• Lesson 20: Equation of a line (1) (With workings Without workings)• Lesson 21: Equation of a line (2) (With workings Without workings)• Lesson 22: Midpoint of a line (With workings Without workings)• Lesson 23: Distance (1) (With workings Without workings)• Lesson 24: Distance (2) (With workings Without workings)• Lesson 25: Parallel lines (With workings Without workings)• Lesson 26: Perpendicular lines (With workings Without workings)	
Advance Information	
<p>The details below show the topics that the exam board have said will be in the exam. However, for maths they have added the caveat that questions that look at problem solving and can need use a range of skills, knowledge and understanding, can include anything that was due to be that year. Therefore, nothing can be assumed to NOT be in the exam.</p>	

In the case of Year 13 courses, the exam board is assuming that all of the Year 12 content can be examined.

Assumptions that some maths websites have made, include the belief that Methods of Integration on the Pure 1 exam, is likely to be integration by parts, but again, this does not rule out the need to utilise substitution or partial fractions.

Paper 9MA0/01 Pure Mathematics 1

- Formal proof
- The factor theorem
- Understand and use graphs of functions
- Use intersection points of graphs to solve equations
- Transformations of a curve
- Use of functions in modelling
- The coordinate geometry of the circle
- Arithmetic sequences and series
- Differentiation: stationary points, minima. Radian measure
- Trigonometric identities and equations
- Trigonometric functions and identities: area under a curve
- Exponentials: Solving equations, rate of change
- Maximum point; iteration
- Integration as a limit
- Methods of integration
- Use vectors to solve a problem in pure mathematics

Paper 9MA0/02 Pure Mathematics 2

- Formal proof
- The modulus of a linear function
- Understand and use function notation
- The binomial expansion
- Sequence generated by an iterative formula
- Geometric sequences and series; trigonometric identities
- Use of a trigonometric function
- The function a^x and its graph
- Differentiation; roots of equations
- Differentiation from first principles
- Find maximum and minimum points; Newton- Raphson method
- Differentiation of curves defined parametrically
- Area under a curve
- Solution of a first order differential equation; partial fractions
- The trapezium rule
- Use vectors to solve problems in pure mathematics

Paper 9MA0/31 Statistics

- Regression lines (change of variable); hypothesis test for correlation
- Measures of central tendency and variation
- Probability and Venn diagrams
- Discrete probability distributions; normal approximation
- Normal distribution
- Hypothesis testing

Subject: AS Mathematics

Exam board: EDEXCEL

Level of qualification: AS-Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
<p>Students all have access to the Pearson/Edexcel 'Active Learn' website. This covers content, has questions and worked solutions: https://www.pearsonactivelearn.com/app/Home</p> <p>The website 'Exam Solutions' at www.examsolutions.net also gives worked solutions to exam questions.</p> <p>All students have been set up to be able to access the 'Hegarty Maths' website: https://hegartymaths.com/student-resources. They have a series of 26 lessons which aim to consolidate the key skills needed in the sixth form that were met in Year 11. A playlist for all of the lessons can be found on YouTube (Click here), whilst links to the lessons are:</p> <ul style="list-style-type: none">• Lesson 1: Simplifying surds (With workings Without workings)• Lesson 2: Expanding brackets with surds (With workings Without workings)• Lesson 3: Rationalising surds (1) (With workings Without workings)• Lesson 4: Rationalising surds(2) (With workings Without workings)• Lesson 5: Laws of indices (1) (With workings Without workings)• Lesson 6: Laws of indices(2) (With workings Without workings)• Lesson 7: Laws of indices(3) (With workings Without workings)• Lesson 8: Laws of indices(4) (With workings Without workings)• Lesson 9: Manipulating powers (1) (With workings Without workings)• Lesson 10: Manipulating powers (2) (With workings Without workings)• Lesson 11: Manipulating powers (3) (With workings Without workings)• Lesson 12: Manipulating powers (4) (With workings Without workings)• Lesson 13: Manipulating powers (5) (With workings Without workings)• Lesson 14: Exponential equations (1) (With workings Without workings)• Lesson 15: Exponential equations (2) (With workings Without workings)• Lesson 16: Exponential equations (3) (With workings Without workings)• Lesson 17: Exponential equations (4) (With workings Without workings)• Lesson 18: Gradient of a line (1) (With workings Without workings)• Lesson 19: Gradient of a line (2) (With workings Without workings)• Lesson 20: Equation of a line (1) (With workings Without workings)• Lesson 21: Equation of a line (2) (With workings Without workings)• Lesson 22: Midpoint of a line (With workings Without workings)• Lesson 23: Distance (1) (With workings Without workings)• Lesson 24: Distance (2) (With workings Without workings)• Lesson 25: Parallel lines (With workings Without workings)• Lesson 26: Perpendicular lines (With workings Without workings)	
Advance Information	
<p>The details below show the topics that the exam board have said will be in the exam. However, for maths they have added the caveat that questions that look at problem solving and can need use a range of skills, knowledge and understanding, can include anything that was due to be that year. Therefore, nothing can be assumed to NOT be in the exam.</p>	

The additional information does not give any indication that particular topics or parts of topics will not be examined.

Paper 8MA0/01 Pure Mathematics 1

- Formal proof
- Manipulation of polynomials, factor theorem, roots of equations
- Graphs of functions, factorisation
- Coordinate geometry of circles and straight lines
- The binomial expansion
- Sine and cosine rules
- Trigonometric equations and identities
- Exponentials: Use of formula and rate of change
- Laws of logarithms
- Logarithmic graphs to estimate parameters
- Tangents and normals, area under a curve
- Use calculus to find minima
- Integration of x^n and related sums, differences and constant multiples
- Vectors: addition, subtraction and magnitude, solving problems in pure mathematics

Paper 8MA0/21 Statistics

- Histogram and connection to probability distributions
- Box and whisker plots
- Regression lines; correlation
- Discrete probability distributions
- Hypothesis testing and significance level

Paper 8MA0/22 Mechanics

- Use and interpret graphs in kinematics
- Constant acceleration
- Variable acceleration in a straight line
- Dynamics of connected particles moving in a straight line, Newton's laws

END OF ADVANCE INFORMATION

Subject: Media Studies

Exam board: AQA

Level of qualification: **A Level**

Changes to NEA	Optional content
<ul style="list-style-type: none">• As well as accepting the submission of final products, AQA will also accept submission of prototypes/mock-ups with supporting evidence.• AQA have removed the current restriction on the use of non-original images, as these could form part of a valid supporting evidence of submissions.• The briefs have been amended to give you additional guidance on prototypes/mock-ups, and the required supporting evidence. <p>More info can be found here:</p> <p>P:\Faculty\Media\Media Storage\Media students NEA folders\13EMEDIA\NEA briefs 2022\7572-C-NEA-MediaStudies-Alevel-StudentBooklet.pdf</p>	N/A
Support materials:	
N/A in exams https://www.aqa.org.uk/subjects/media-studies/a-level/media-studies-7572	
Advance Information	
<p><i>Some content has been removed. You will now be assessed on the following CSPs only:</i></p> <p>Media One:</p> <p><i>Section A</i></p> <p><i>Advertising and Marketing – Maybelline ‘That Boss Life part 1’ and Score</i></p> <p><i>Music Video – Letter to the Free</i></p> <p><i>Section B:</i></p> <p><i>Film – Blinded by the Light</i></p> <p><i>Radio – War of the Worlds and Newsbeat</i></p> <p>Media Two</p> <p><i>All Magazine – Men’s Health and Oh Comely</i></p> <p><i>OSP – Teen Vogue and The Voice</i></p> <p><i>Television – The Missing and Witnesses</i></p>	

Subject: A2 Physics

Exam board: AQA

Level of qualification: A Level

Changes to coursework	Optional content
Direct knowledge of Required Practicals 4,5 & 8.	Astrophysics, as per normal.
Support materials	
N/A	
Advance Information	
<ul style="list-style-type: none">• This advance information covers all examined components.• For each paper the list shows the major focus of the content of the examination; the topic areas are listed in rank order, with the areas carrying the highest mark allocations at the top of each list.• Topics not explicitly given in the list may appear in multiple-choice items, low tariff questions, or via synopticity.• Assessment of practical skills (section 8.3 of the specification) and maths skills (section 6 of the specification) occurs throughout the three papers.• It is not permitted to take this advance information into the examination.	
Paper 1 7408/1	
<ul style="list-style-type: none">• 3.2.1 Particles• 3.4.1 Force, energy and momentum• 3.5.1 Current electricity• 3.6.1 Periodic motion• 3.2.2 Electromagnetic radiation and quantum phenomena	
Paper 2 7408/2	
<ul style="list-style-type: none">• 3.6.2 Thermal physics• 3.8.1 Radioactivity• 3.7.5 Magnetic fields• 3.7.2 Gravitational fields	
Paper 3 7408/3A + 7408/3BA (Astrophysics route)	
<ul style="list-style-type: none">• 3.6.2 Thermal physics (including Required Practical 8)• 3.5.1 Current electricity (including Required Practical 5)• 3.4.2 Materials (including Required Practical 4) • 3.9.3.1 Doppler effect• 3.9.3.2 Hubble's law• 3.9.1.1 Astronomical telescope consisting of two converging lenses• 3.9.2.2 Absolute magnitude, M• Students and teachers should consider how to focus their revision of other non-listed parts of the specification, which may be tested in lower mark questions.• Students will still be expected to apply their knowledge to unfamiliar contexts.• Students will be expected to draw on knowledge, skills and understanding from across the specification when responding to synoptic questions.	
More information can be found here: https://www.aqa.org.uk/subjects/science/as-and-a-level/physics-7407-7408/changes-for-2022	

Subject: AS Physics

Exam board: AQA

Level of qualification: AS

Changes to coursework	Optional content
Direct knowledge of Required Practicals 3 & 5.	N/A
Support materials	
N/A	
Advance Information	
<ul style="list-style-type: none">• This advance information covers all examined components.• For each paper the list shows the major focus of the content of the examination; the topic areas are listed in rank order, with the areas carrying the highest mark allocations at the top of each list.• Topics not explicitly given in the list may appear in multiple-choice items, low tariff questions, or via synopticity.• Assessment of practical skills (section 8.3 of the specification) and maths skills (section 6 of the specification) occurs throughout the two papers.• It is not permitted to take this advance information into the examination. <p>The inclusion of Required Practicals in the lists below should not be taken to imply direct references to those procedures quoted in the Practical Handbook. They are there to give a general idea of the context in which practical work is being assessed.</p> <p>Paper 1 7407/1</p> <ul style="list-style-type: none">• 3.2.2 Electromagnetic radiation and quantum phenomena• 3.4.1 Force, energy and momentum• 3.5.1 Current electricity• 3.2.1 Particles <p>Paper 2 7407/2</p> <ul style="list-style-type: none">• 3.4.1 Force, energy and momentum (including Required Practical 3)• 3.5.1 Current electricity (including Required Practical 5)• 3.3.2 Refraction, diffraction and interference <p>All guidance on the changes can be found here: https://www.aqa.org.uk/subjects/science/as-and-a-level/physics-7407-7408/changes-for-2022</p>	

Subject: Psychology

Exam board: AQA

Level of qualification: A Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
<i>The group have been given a variety of support materials to help them with their revision. If year thirteen need further signposting then they can contact the psychology department directly.</i>	
Advance Information	
<p>Advanced information provided for all three papers. Adaptions and modifications have been made accordingly. It is important to look through the bullet points for each of topic areas across the three exam papers. Revision should be focused on these areas.</p> <p>Please be mindful that there are no modifications made in terms of research methods. This includes the mathematical and statistical components of the course.</p> <p>The exam board have been explicit, however, that the entire course content needs to be taught. This is so synoptic links can be made between topics. So, for example, the nature-nurture debate has been taken out of the issues and debates topic, but it can be referred to as a part of evaluating other psychological/biological theories and concepts. The biological approach to offending behaviour has been taken out of the forensic psychology topic, although it can be used to evaluate the psychological ideas.</p> <p>All details on advanced information for psychology can be found here:</p> <p>https://filestore.aqa.org.uk/content/summer-2022/AQA-7182-AI-22.PDF</p>	

Subject: Sociology

Exam board: AQA

Level of qualification: A Level

Changes to coursework	Optional content
N/A	N/A
Support materials	
N/A	
Advance Information	
Advanced information only provided for high tariff questions (20 + 30-mark essay questions)	
Paper 1: Education with Theory and Methods (7192/1)	
(1 x 30-mark question)	
• the significance of educational policies, including problems of selection, marketisation and privatisation, and policies to achieve greater equality of opportunity or outcome, for an understanding of the structure, role, impact and experience of and access to education; the impact of globalisation on educational policy.	
Paper 2: Topics in Sociology (7192/2)	
(2 x 20-mark questions)	
Health • the role of medicine, the health professionals and the globalised health industry. The Media • the new media and their significance for an understanding of the role of the media in contemporary society.	
Paper 3: Crime and Deviance with Theory and Methods (7192/3)	
(1 x 30-mark question)	
Crime and Deviance • crime, deviance, social order and social control.	
(1 x 20-mark question)	
Theory and Methods • consensus, conflict, structural and social action theories.	
All details on advanced information for Sociology can be found here: https://filestore.aqa.org.uk/content/summer-2022/AQA-7192-AI-22.PDF	

Subject: Spanish

Exam board: AQA

Level of qualification: A level

Changes to coursework	Optional content
N/A	N/A
Support materials	
N/A	
Advance Information	
<p>There is no Advance Information for Paper 2 (Cultural essays). Therefore, all parts of the specification will need to be revised for this paper.</p> <p>On Paper 1 – Listening, Reading and Writing, the list below shows the major focus of the content of the exam:</p> <hr/>	
<p>Paper 1: Listening, Reading and Writing</p> <p>3.1.1 Aspects of Hispanic society</p> <p>Modern and traditional values (Los valores tradicionales y modernos) La influencia de la Iglesia Católica</p> <p>Cyberspace (El ciberespacio) Los móviles inteligentes en nuestra sociedad</p> <p>Equal rights (La igualdad de los sexos) Los derechos de los gays y las personas transgénero</p> <p>3.1.2 Multiculturalism in Hispanic society</p> <p>Racism (El racismo) Las actitudes racistas y xenóforas</p> <p>Integration (La convivencia) La convivencia de culturas</p> <p>3.2.1 Artistic culture in the Hispanic world</p> <p>Modern day idols (La influencia de los ídolos) Estrellas de televisión y cine</p> <p>Spanish regional identity (La identidad regional en España) La identidad regional en España Tradiciones y costumbres</p> <p>Cultural heritage (El patrimonio cultural) Sitios turísticos y civilizaciones prehistóricas: Machu Picchu, la Alhambra, etc Arte y arquitectura</p> <p>3.2.2 Aspects of political life in the Hispanic world</p> <p>Today's youth, tomorrow's citizens (Jóvenes de hoy, ciudadanos del mañana) Los jóvenes y su actitud hacia la política: activismo o apatía</p> <p>Monarchies and dictatorships (Monarquías y dictaduras) La dictadura de Franco</p> <p>Popular movements (Movimientos populares) La efectividad de las manifestaciones y las huelgas</p>	

On Paper 3 – Speaking, the list below shows the major focus of the content of the exam:

Paper 3: Speaking

3.1.1 Aspects of Hispanic society

Modern and traditional values (Los valores tradicionales y modernos)

Los cambios en la familia

Cyberspace (El ciberespacio)

Las redes sociales: beneficios y peligros

Equal rights (La igualdad de los sexos)

El machismo y el feminismo

3.1.2 Multiculturalism in Hispanic society

Immigration (La inmigración)

La inmigración en el mundo hispánico

Racism (El racismo)

Las actitudes racistas y xenófobas

Integration (La convivencia)

La convivencia de culturas

La educación

3.2.1 Artistic culture in the Hispanic world

Modern day idols (La influencia de los ídolos)

La influencia de los ídolos

Spanish regional identity (La identidad regional en España)

Tradiciones y costumbres

Cultural heritage (El patrimonio cultural)

Arte y arquitectura

3.2.2 Aspects of political life in the Hispanic world

Today's youth, tomorrow's citizens (Jóvenes de hoy, ciudadanos del mañana)

El paro entre los jóvenes

Monarchies and dictatorships (Monarquías y dictaduras)

Dictadores latinoamericanos

Popular movements (Movimientos populares)

Ejemplos de protestas sociales (eg. El 15-M, las Madres de la Plaza de Mayo, ...)

END OF ADVANCE INFORMATION

The full Advance Information document for AQA Spanish A level can be found here:

<https://filestore.aqa.org.uk/content/summer-2022/AQA-7692-AI-22.PDF>

Subject: BTEC SPORT

Exam board: Pearson

Level of qualification: Level 3

Changes to coursework	Optional content
<i>The practical elements of unit 4- sports leadership, unit 25- rules, regulations and officiating in sport and unit 17 sports injury management have been "Z-Flagged" meaning the units will be entered on the written elements only.</i>	N/A
Support materials	
<i>There is no additional content</i>	
Advance Information	
<i>No Advanced information has/will be released for the BTEC Sport exams.</i>	