

GCSE English Literature - Exam board - Eduqas

Changes for 2022 ONLY

Component 1 exam (Shakespeare and Post-1914 Drama)

There will be two separate one-hour papers, one for Shakespeare (*Macbeth*) and one for Post-1914 Prose/Drama (*An Inspector Calls*). These will be scheduled in the same session of the examination timetable and candidates will complete both papers.

Component 2 exam (Pre-1914 Prose and Poetry)

Students will study two out of the other three usual exam sections: Poetry Anthology, 19th Century Prose and Unseen Poetry.

We will be taking the 19th Century Prose (*A Christmas Carol*) and Unseen Poetry options. There will be two separate one-hour papers, scheduled in the same session of the examination timetable and candidates will complete both papers.



GCSE English Language - Exam board - Eduqas

Changes for 2022 ONLY

Component 1: No changes or adaptations to the 20th Century reading or creative writing tasks.

Component 2: We have been given the text types to prepare for reading and writing in this exam paper:

- **Section A** 19th and 21st Century Non-Fiction Reading
Students will be given a **newspaper article** written in the 21st century and an **extract from a non-fiction book** written in the 19th century
- **Section B** Transactional/Persuasive Writing
Students will be asked to write a **formal letter** and a **magazine article**.

Component 3: There is now no requirement for students to be filmed for their Spoken Language Assessment. Some students have been filmed already; no change is needed here.

GCSE Maths - Exam board - Edexcel

Changes for 2022 ONLY

- A formulae sheet/equation sheet which will be available in the exam.
- Advance notice of certain topics that will appear on the summer's exam papers.

Foundation topics:

- Arithmetic operations
- Fractions
- Properties of numbers
- Powers and roots
- Estimating
- Equations and inequalities
- Graphs
- Sequences
- Percentages
- Ratio and proportion
- Compound measures
- Shape
- Angles
- Length, area and volume
- Pythagoras' Theorem and Trigonometry
- Probability
- Statistical Diagrams
- Mean, median, mode and range

Higher topics:

- Arithmetic operations
- Fractions
- Properties of numbers
- Powers and roots
- Estimating
- Equations and inequalities
- Graphs
- Functions
- Percentages
- Ratio and proportion
- Compound measures
- Shape
- Circle Theorems
- Length, area and volume
- Pythagoras' Theorem and Trigonometry
- Vectors
- Probability
- Statistical Diagrams
- Mean, median, mode and range
- Populations

- Students may need prior knowledge or skills that aren't stated in the advance information.
- Students are still expected to apply knowledge to unfamiliar contexts.
- Students will be "credited for using any relevant knowledge from any topic areas" when answering questions.

GCSE Geography - Exam board AQA

Changes for 2022 ONLY

What you need to know

- Optionality introduced for Paper 2 - We are choosing
- Fieldwork not required
- Familiar fieldwork questions removed from Paper 3
- No advance information on exams
- There are no changes to Paper 1: Living with the physical environment

Optionality

optionality will be introduced into 8035/2 Paper 2: Challenges in the human environment.

- Students must answer **all** questions in Section A: Urban issues,
- Our students will answer Section B: The changing economic world **ONLY**
The total time allocation for Paper 2 will be reduced from 1 hour 30 minutes to 1 hour 15 minutes.
- A total of **5 marks** will be introduced to **Section C**. These marks could appear anywhere in Section C.
- In Section B, the **9-mark** question will be replaced with a **6-mark question**.
To keep the **total of 30 marks**, **3 marks** will be introduced **elsewhere in Section B**.
- The total marks for Paper 2 will be reduced from 88 marks to 63 marks (a removal of 25 marks).
- Sections B and C will now have equal weighting worth 30 marks each.
- The highest tariff question in both Section B and C will be 6 marks.
- There are 3 spelling, punctuation and grammar (SPaG) marks that will appear in the 9-mark question at the end of Section A.

Fieldwork not required

Familiar fieldwork questions removed

Because fieldwork is not required, we'll remove questions about students' own fieldwork experience (known as 'familiar fieldwork') from the exam.

This means we'll be making some changes to Paper 3: Geographical applications.

- Question 5, Section B (on familiar fieldwork) will be removed.
- There are 3 SPaG marks in question 5 which will be moved to one of the 6-mark questions within Section A (issue evaluation) so that students can still access these marks
- The total number of marks available for the 8035/3 paper will reduce from 76 to 56 marks (a removal of 20 marks).
- The total time allocation for the 8035/3 paper will reduce from 1 hour 15 minutes to 1 hour.

Questions on 'unfamiliar fieldwork' (theoretical understanding of the fieldwork enquiry process) will remain.

- The total marks for the overall qualification will be reduced from 252 to 207.
- Although the total number of marks in Paper 2 and Paper 3 have reduced, these marks will be scaled up to maintain the usual weightings for each exam (Paper 1 and 2 - 35%, Paper 3 - 30%).

GCSE History - Exam board AQA

Changes for 2022 ONLY

- Only three out of four studies required
- Spelling, punctuation and grammar (SPaG) marks reduced
- Total marks and total exam time reduced
- New entry codes to reflect changes
- No advance information on exams

Students will only answer questions on three out of four studies. There will be a mixture of compulsory and optional studies.

The compulsory study will be the Wider World Depth study (Paper 1, Section B).

Students will also answer questions on two of the remaining three optional studies:

- the Period study (Paper 1, Section A)
- the Thematic study (Paper 2, Section A)
- the British Depth study with the historic environment (Paper 2, Section B).

We're reducing the total exam marks available from 168 to 124 marks.

- 44 marks will be allocated to the compulsory study, including four marks for SPaG.
- 40 marks will be allocated to each of the (two chosen) optional studies.

This is because of the reduction in SPaG marks and because students will only answer questions on three out of four studies.

We're reducing the total exam time for GCSE History from four hours to three hours. This is because students will only be taking three studies in 2022, instead of four.

We'll update the front sheet of our question papers to reflect this change.

GCSE Business - Exam board AQA

Paper 1: HR and Operations (1h 45 90 marks)	Paper 2: Marketing and Finance (1h 45 90 marks)
<ul style="list-style-type: none"> 3.1.1 The purpose and nature of business 3.1.2 Business ownership 3.1.3 Setting business aims and objectives 3.1.6 Business planning 3.1.7 Expanding a business 	<ul style="list-style-type: none"> 3.1.2 Business ownership 3.1.6 Business planning 3.1.7 Expanding a business
<ul style="list-style-type: none"> 3.2.5 Legislation 	<ul style="list-style-type: none"> 3.2.2 Ethical and environmental considerations 3.2.3 The economic climate on businesses
<ul style="list-style-type: none"> 3.3.1 Production processes 3.3.2 The role of procurement 3.3.3 The concept of quality 3.3.4 Good customer services 	<ul style="list-style-type: none"> 3.5.3 The purpose and methods of market research 3.5.4 The elements of the marketing mix; price, product, promotion and place (4Ps)
<ul style="list-style-type: none"> 3.4.1 Organisational structures 3.4.2 Recruitment and selection of employees 3.4.3 Motivating employees 3.4.4 Training 	<ul style="list-style-type: none"> 3.6.1 Sources of finance 3.6.2 Cash flow 3.6.3 Financial terms and calculations 3.6.4 Analysing the financial performance of a business
<ul style="list-style-type: none"> 3.6.3 Financial terms and calculations Calculations; averages, revenues, costs and profit 	<ul style="list-style-type: none"> Calculations; gross profit margin and net profit margin ratios, ARR, cash flow forecasts, costs, revenues, net cash flow
<ul style="list-style-type: none"> Reading graphs and charts 	<ul style="list-style-type: none"> Reading graphs and charts

GCSE French - Exam board AQA

Changes for 2022 ONLY

- There are no changes to the speaking, listening or reading papers at either tier.
- There are some changes to the writing paper, namely:
 - a. On both papers, there will be three choices of the 90 word question covering the 3 themes outlined here. Students can choose which **one** they want to answer. Normally there are only 2 questions to choose from.
 - b. On the higher tier, there will also be three choices of 150 word question. Students must answer **one**.
 - c. The topics within the themes have been reduced for the writing papers. Please see more detail on the right.

Focus of the June 2022 exam (writing paper only)

Foundation tier

- **Theme 1 – Identity and culture (all topics included)**
Topic 1: Me, my family and friends
Topic 2: Technology in everyday life
Topic 3: Free-time activities
- **Theme 2 – Local, national, international and global areas of interest (global issues e.g. the environment and travel and tourism topics have been removed)**
Topic 1: Home, town, neighbourhood and region
Topic 2: Social issues
- **Theme 3 – Current and future study and employment (higher education topic has been removed)**
Topic 1: My studies
Topic 2: Life at school/college
Topic 4: Jobs, career choices and ambitions

Higher tier

- **Theme 1 – Identity and culture (all topics included - see foundation above)**
- **Theme 2 – Local, national, international and global areas of interest (travel and tourism topic has been removed)**
Topic 1: Home, town, neighbourhood and region
Topic 2: Social issues
Topic 3: Global issues
- **Theme 3 – Current and future study and employment (all topics included)**
Topic 1: My studies
Topic 2: Life at school/college
Topic 3: Education post-16
Topic 4: Jobs, career choices and ambitions

GCSE Design & Technology - Exam board AQA

Changes for 2022 ONLY

Changes to NEA

There are changes to parts of the NEA for GCSE Design and Technology. The 'Realising design ideas' and 'Analysing and evaluating' sections have been rewritten to reflect these changes.

Realising design ideas

- This section has been reduced from 20 to 10 marks
- Students will no longer be assessed on the skill of making but will be required to show their 'intentions of prototypes' and demonstrate their understanding of the processes involved in making
- The assessment no longer requires students to make a final prototype. Instead, they can show their understanding of the processes involved in making by writing about them. Documenting these processes is one way of gaining marks in the 2022 'Realising design ideas' section. However, making skills are important for progression to future study, and for students' understanding, so we'd encourage you to continue to allow students to make wherever possible. This is another way of demonstrating the knowledge tested in the 2022 'Realising design ideas' section.

Analysing and evaluation

- This section has been reduced from 20 to 15 marks
- Analysis and evaluation throughout the design process can take place in relation to prototype ideas and models
- There's no expectation to test a final made prototype but students should find ways of testing prototype designs.

Focus of the June 2022 exam

3.2.1 Selection of materials or components

3.2.3 Ecological and social footprint

3.2.8 Specialist techniques and processes

3.3.2 Environmental, social and economic challenge

3.3.5 Communication of design ideas

3.3.6 Prototype development

3.3.9 Material management

GCSE Fine Art - Exam board AQA

Changes for 2022 ONLY

Students will only complete Component 1

For GCSE Art and Design: Fine Art, students will complete Component 1 (Portfolio) only.

This means that students won't need to start or complete Component 2 but we are working on a self-directed project to prepare students for A Level study in this subject area.

Moderation visits as normal

We'll be returning to moderator visits in June 2022, to assess the portfolio work.

However, this may need to change based on whatever Coronavirus (COVID-19) restrictions are in place at the time.

No other changes

Students will need to complete Component 1 in the normal way and show evidence across all 4 Assessment Objectives.

Component 1 will be marked out of 96 as usual, using the usual assessment criteria.

GCSE Physical Education - Exam board AQA

Changes for 2022 ONLY

Practical

Students will be required to complete two activities rather than three. The two activities can be two team activities, two individual activities or one team activity and one individual activity. Standard rules apply to activities that cannot be used together eg skiing and snowboarding.

Paper 1: The human body and movement in physical activity and sport

3.1.1.1 The structure and functions of the musculoskeletal system • How the major muscles and muscle groups of the body work antagonistically on the major joints of the skeleton to affect movement in physical activity at the major movable joints

3.1.1.2 The structure and functions of the cardio-respiratory system • Blood vessels
Mechanics of breathing – the interaction of the intercostal muscles, ribs and diaphragm in breathing • Interpretation of a spirometer trace

3.1.1.3 Anaerobic and aerobic exercise • The use of aerobic and anaerobic exercise in practical examples of differing intensities

3.1.1.4 The short- and long-term effects of exercise • Long-term effects of exercise (months and years of exercising)

3.1.2.1 Lever systems, examples of their use in activity and the mechanical advantage they provide in movement • Analysis of basic movements in sporting examples

3.1.3.2 The components of fitness, benefits for sport and how fitness is measured and improved • Linking sports and physical activity to the required components of fitness • Reasons for and limitations of fitness testing

3.1.3.5 Effective use of warm up and cool down • Warming up and cooling down

Paper 2: Socio-cultural influences and well-being in physical activity and sport

3.2.1.1 Classification of skills (basic/complex, open/closed) • Classifications of skill

3.2.1.3 Basic information processing • Basic information processing model

3.2.2.1 Engagement patterns of different social groups in physical activity and sport • Engagement patterns of different social groups and the factors affecting participation

3.2.2.2 Commercialisation of physical activity and sport • Positive and negative impacts of sponsorship and the media • Positive and negative impacts of technology

3.2.2.3 Ethical and socio-cultural issues in physical activity and sport • Prohibited substances • Reasons why hooliganism occurs • Strategies employed to combat hooliganism/spectator behaviour

3.2.3.3 Energy use, diet, nutrition and hydration • Nutrition – the role of carbohydrates, fat, protein and vitamins/minerals • Reasons for maintaining water balance (hydration)

GCSE Computer Science - Exam board OCR

- There has been **no** changes made for Paper 2 Computational Thinking and Algorithms. All areas for this paper are to be assessed.
- Changes to Paper 1 Computer Systems are as follows:-

Changes for 2022 ONLY

Areas of Paper One which will be directly assessed are as follows

1.1.1 Architecture of the CPU

- The purpose of the CPU
- Common CPU components and their features
- Von Neumann architecture

1.2.1 Primary storage (Memory)

- *All subtopics to be covered*

1.2.2 Secondary storage

- *All subtopics to be covered*

1.2.3 Units

- The units of data storage

1.2.4 Data Storage

- Numbers.
- Characters.
- Images.
- Sound.

1.2.5 Compression

- *All subtopics to be covered*

1.3.1 Networks and topologies

- Factors that affect the performance of networks.
- The hardware needed to connect stand-alone computers into a Local Area Network.
- The Internet as a worldwide collection of computer networks.

1.3.2 Wired and wireless networks, protocols and layers

- Modes of connection.
- Encryption
- IP addressing and MAC addressing
- Standards
- Common protocols

1.4.2 Identifying and preventing Vulnerabilities

- Common prevention methods.

1.6.1 Ethical, legal, cultural and environmental impact

- Impacts of digital technology on wider society
- Legislation relevant to Computer Science.

Level 2 Hospitality & Catering Exam board WJEC

Changes for 2022 ONLY

Unit 1: The Hospitality and Catering Industry **Externally assessed examination 40%**

There are no changes to the assessment of this unit.

Unit 2: Hospitality and Catering in Action Controlled **Assessment 60%**

Candidates must still plan two dishes but will only be required to prepare one dish in line with the controls outlined in the brief.

GCSE Biology - Exam board AQA

Changes for 2022 ONLY

Paper 1 For this paper, the following list shows the major focus of the content of the exam:

- 4.1.1 Cell structure
- 4.1.3 Transport in cells
- 4.2.2 Animal tissues, organs and organ systems
- 4.2.3 Plant tissues, organs and systems
- 4.3.1 Communicable diseases
- 4.3.2 Monoclonal antibodies

Required practical activities that will be assessed:

Required practical activity 1: use a light microscope to observe plant cells.

Required practical activity 3: investigate the effect of a range of concentrations of salt solution on the mass of plant tissue.

Required practical activity 4: use qualitative reagents to test for a range of carbohydrates, lipids and proteins.

Topics not assessed in this paper:

- 4.2.2.3 Blood
- 4.2.2.7 Cancer
- 4.3.1.8 Antibiotics and painkillers
- 4.3.1.9 Discovery and development of drugs
- 4.4.2.2 Response to exercise

Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 4.5.2 The human nervous system
- 4.5.3 Hormonal control in humans
- 4.5.4 Plant hormones
- 4.6.1 Reproduction
- 4.7.2 Organisation of an ecosystem

Required practical activities that will be assessed:

Required practical activity 8: investigate the effect of light on the growth of newly germinated seedlings.

Required practical activity 9: measure the population size of a common species in a habitat.

Topics not assessed in this paper:

- 4.5.2.1 Structure and function
- 4.5.2.2 The brain
- 4.5.2.3 The eye
- 4.5.3.4 Hormones in human reproduction
- 4.5.3.5 Contraception
- 4.5.3.6 The use of hormones to treat infertility
- 4.5.3.7 Negative feedback
- 4.5.4.2 Use of plant hormones
- 4.6.1.3 Advantages and disadvantages of sexual and asexual reproduction
- 4.6.1.8 Sex determination
- 4.6.2 Variation and evolution
- 4.6.3 The development of understanding of genetics and evolution
- 4.6.4 Classification of living organisms
- 4.7.1.4 Adaptations
- 4.7.2.4 Impact of environmental change
- 4.7.3.1 Biodiversity
- 4.7.3.4 Deforestation
- 4.7.3.6 Maintaining biodiversity
- 4.7.4.1 Trophic levels
- 4.7.4.2 Pyramids of biomass
- 4.7.5.3 Sustainable fisheries
- 4.7.5.4 Role of biotechnology

GCSE Chemistry - Exam board AQA

Changes for 2022 ONLY

Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 4.1.2 The periodic table
- 4.2.1 Chemical bonds, ionic, covalent and metallic
- 4.2.2 How bonding and structure are related to the properties of substances
- 4.2.3 Structure and bonding of carbon
- 4.3.2 Use of amount of substance in relation to masses of pure substances
- 4.4.1 Reactivity of metals
- 4.4.2 Reactions of acids
 - 4.4.3 Electrolysis
- 4.5.1 Exothermic and endothermic reactions

Required practical activities that will be assessed:

- Required practical activity 1: preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution.
- Required practical activity 2: determination of the reacting volumes of solutions of a strong acid and a strong alkali by titration.
- Required practical activity 4: investigate the variables that affect temperature changes in reacting solutions such as, eg, acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

Topic not assessed in this paper:

- 4.2.4 Bulk and surface properties of matter including nanoparticles

Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 4.6.1 Rate of reaction
- 4.6.2 Reversible reactions and dynamic equilibrium
- 4.7.1 Carbon compounds as fuels and feedstock
- 4.9.1 The composition and evolution of the Earth's atmosphere
- 4.10.1 Using the Earth's resources and obtaining potable water
- 4.10.4 The Haber process and the use of NPK fertilisers

Required practical activities that will be assessed:

- Required practical activity 5: investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity. This should be an investigation developing a hypothesis.
- Required practical activity 7: use of chemical tests to identify the ions in unknown single ionic compounds covering the ions from sections Flame tests through to Sulfates.

Topic not assessed in this paper:

- 4.9.2 Carbon dioxide and methane as greenhouse gases

GCSE Physics - Exam board AQA

Changes for 2022 ONLY

Paper 1 major focus of the content of the exam:

- 4.1.1 Energy changes in a system, and the ways energy is stored before and after such changes
- 4.1.2 Conservation and dissipation of energy
- 4.2.4 Energy transfers
- 4.3.1 Changes of state and the particle model
- 4.3.2 Internal energy and energy transfers Required practical activities that will be assessed:
- Required practical activity 2: investigate the effectiveness of different materials as thermal insulators and the factors that may affect the thermal insulation properties of a material.
- Required practical activity 5: use appropriate apparatus to make and record the measurements needed to determine the densities of regular and irregular solid objects and liquids.

Topics not assessed in this paper:

- 4.2.1 Current, potential difference and resistance
- 4.2.2 Series and parallel circuits
- 4.2.3 Domestic uses and safety
- 4.3.3 Particle model and pressure
- 4.4.1 Atoms and isotopes
- 4.4.3 Hazards and uses of radioactive emissions and of background radiation
- 4.4.4 Nuclear fission and fusion

Paper 2 major focus of the content of the exam:

- 4.5.1 Forces and their interactions
- 4.5.2 Work done and energy transfer
- 4.5.3 Forces and elasticity
- 4.5.5 Pressure and pressure differences in fluids
- 4.5.6.1 Describing motion along a line
- 4.5.7 Momentum
- 4.6.1 Waves in air, fluids and solids
- 4.8.1 Solar system; stability of orbital motions; satellites
- 4.8.2 Red-shift
- Required practical activity 9: investigate the reflection of light by different types of surface and the refraction of light by different substances.

Topics not assessed in this paper:

- 4.5.4 Moments, levers and gears
- 4.6.2 Electromagnetic waves
- 4.6.3 Black body radiation
- 4.7.1 Permanent and induced magnetism, magnetic forces and fields

GCSE Combined science - Exam board AQA

Changes for 2022 ONLY

Biology Foundation Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 4.1.2 Cell division
- 4.2.2 Animal tissues, organs and organ systems
- 4.3.1 Communicable diseases
- 4.4.1 Photosynthesis

Required practical activities that will be assessed:

- Required practical activity 1: use of a light microscope.
- Required practical activity 3: use qualitative reagents to test for a range of carbohydrates, lipids and proteins.
- Required practical activity 5: investigate the effect of light on the rate of photosynthesis of an aquatic plant such as pondweed.

Topics not assessed in this paper:

- 4.1.3.2 Osmosis
- 4.1.3.3 Active transport
- 4.2.2.4 Coronary heart disease: a non-communicable disease
- 4.4.1.3 Uses of glucose from photosynthesis
- 4.4.2 Respiration

Biology Foundation Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 4.5.3 Hormonal control in humans
- 4.6.1 Reproduction
- 4.7.1 Adaptations, interdependence and competition
- 4.7.2 Organisation of an ecosystem

Required practical activity that will be assessed:

Required practical activity 7: measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species.

Topics not assessed in this paper:

- 4.5.2 The human nervous system
- 4.5.3.3 Hormones in human reproduction
- 4.5.3.4 Contraception
- 4.6.1.1 Sexual and asexual reproduction
- 4.6.1.2 Meiosis
- 4.6.1.6 Sex determination
- 4.6.2.1 Variation
- 4.6.2.2 Evolution
- 4.6.2.3 Selective breeding
- 4.6.3.3 Extinction
- 4.6.3.4 Resistant bacteria
- 4.7.1.4 Adaptations
- 4.7.3.1 Biodiversity
- 4.7.3.3 Land use
- 4.7.3.4 Deforestation
- 4.7.3.5 Global warming
- 4.7.3.6 Maintaining biodiversity

GCSE Combined science - Exam board AQA

Changes for 2022 ONLY

Biology Higher Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 4.5.3 Hormonal control in humans
- 4.6.1 Reproduction
- 4.7.1 Adaptations, interdependence and competition
- 4.7.2 Organisation of an ecosystem

Required practical activity that will be assessed:

Required practical activity 7: measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species.

Topics not assessed in this paper:

- 4.5.2 The human nervous system
- 4.5.3.3 Hormones in human reproduction • 4.5.3.4 Contraception
- 4.6.1.1 Sexual and asexual reproduction • 4.6.1.2 Meiosis
- 4.6.1.6 Sex determination • 4.6.2.1 Variation
- 4.6.2.2 Evolution • 4.6.2.3 Selective breeding
- 4.6.3.3 Extinction • 4.6.3.4 Resistant bacteria
- 4.7.1.4 Adaptations • 4.7.3.1 Biodiversity • 4.7.3.3 Land use
- 4.7.3.4 Deforestation • 4.7.3.5 Global warming
- 4.7.3.6 Maintaining biodiversity

Biology Higher Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 4.5.3 Hormonal control in humans
- 4.7.2 Organisation of an ecosystem
- 4.7.3 Biodiversity and the effect of human interaction on an ecosystem

Required practical activity that will be assessed:

Required practical activity 7: measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species.

Topics not assessed in this paper:

- 4.5.2 The human nervous system • 4.5.3.4 Contraception
- 4.6.1.1 Sexual and asexual reproduction • 4.6.1.3 DNA and the genome
- 4.6.1.4 Genetic inheritance • 4.6.1.5 Inherited disorders
- 4.6.1.6 Sex determination • 4.6.2 Variation and evolution
- 4.6.3 The development of understanding of genetics and evolution
- 4.7.1.4 Adaptations • 4.7.3.3 Land use • 4.7.3.4 Deforestation

GCSE Combined science - Exam board AQA

Changes for 2022 ONLY

Chemistry Foundation Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 5.1.2 The periodic table
- 5.2.2 How bonding and structure are related to the properties of substances
- 5.2.3 Structure and bonding of carbon
- 5.4.1 Reactivity of metals
- 5.4.2 Reactions of acids
- 5.4.3 Electrolysis Required practical activities that will be assessed:

Required practical activity 8: preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution.

Required practical activity 9: investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis.

Required practical activity 10: investigate the variables that affect temperature changes in reacting solutions such as, eg, acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

Topics not assessed in this paper:

- Not applicable

Chemistry Foundation Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 5.6.1 Rate of reaction
- 5.6.2 Reversible reactions and dynamic equilibrium
- 5.7.1 Carbon compounds as fuels and feedstock
- 5.8.1 Purity, formulations and chromatography •
- 5.9.1 The composition and evolution of the Earth's atmosphere
- 5.9.3 Common atmospheric pollutants and their sources

• 5.10.1 Using the Earth's resources and obtaining potable water
Required practical activities that will be assessed:

Required practical activity 11: investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity. This should be an investigation involving developing a hypothesis.

Required practical activity 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate R_f values.

Topic not assessed in this paper:

- 5.9.2 Carbon dioxide and methane as greenhouse gases

GCSE Combined science - Exam board AQA

Changes for 2022 ONLY

Chemistry Higher Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 5.2.2 How bonding and structure are related to the properties of substances
- 5.3.2 Use of amount of substance in relation to masses of pure substances
- 5.4.1 Reactivity of metals
- 5.4.2 Reactions of acids
- 5.4.3 Electrolysis
- 5.5.1 Exothermic and endothermic reactions

Required practical activities that will be assessed:

Required practical activity 8: preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution.

Required practical activity 9: investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis. • Required practical activity 10: investigate the variables that affect temperature changes in reacting solutions such as, eg, acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

Topics not assessed in this paper:

- Not applicable

Chemistry Higher Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 5.6.1 Rate of reaction
 - 5.6.2 Reversible reactions and dynamic equilibrium
 - 5.7.1 Carbon compounds as fuels and feedstock
 - 5.8.1 Purity, formulations and chromatography
 - 5.9.1 The composition and evolution of the Earth's atmosphere
 - 5.10.1 Using the Earth's resources and obtaining potable water
- Required practical activities that will be assessed:

Required practical activity 11: investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity. This should be an investigation involving developing a hypothesis.

Required practical activity 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate R_f values.

Topic not assessed in this paper:

- 5.8.2 Identification of common gases

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Physics Foundation Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 6.1.1 Energy changes in a system, and the ways energy is stored before and after such changes
- 6.1.3 National and global energy resources
- 6.2.1 Current, potential difference and resistance
- 6.3.1 Changes of state and the particle model
- 6.4.2 Atoms and nuclear radiation Required practical activities that will be assessed:

Required practical activity 14: an investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored.

Required practical activity 16: use circuit diagrams to construct appropriate circuits to investigate the I–V characteristics of a variety of circuit elements, including a filament lamp, a diode and a resistor at constant temperature.

Topics not assessed in this paper:

- 6.2.3 Domestic uses and safety
- 6.3.3 Particle model and pressure
- 6.4.1 Atoms and isotopes

Physics Foundation Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 6.5.1 Forces and their interactions
- 6.5.4.1 Describing motion along a line
- 6.5.4.2 Forces, accelerations and Newton's Laws of motion
- 6.5.4.3 Forces and braking
- 6.6.2 Electromagnetic waves
- 6.7.1 Permanent and induced magnetism, magnetic forces and fields
- 6.7.2 The motor effect

Required practical activity that will be assessed:

Required practical activity 21: investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.

Topic not assessed in this paper:

- 6.5.3 Forces and elasticity

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Physics Higher Paper 1

For this paper, the following list shows the major focus of the content of the exam:

- 6.1.1 Energy changes in a system, and the ways energy is stored before and after such changes
- 6.2.4 Energy transfers
- 6.3.1 Changes of state and the particle model
- 6.3.3 Particle model and pressure
- 6.4.1 Atoms and isotopes
- 6.4.2 Atoms and nuclear radiation Required practical activities that will be assessed:

Required practical activity 14: an investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored.

Required practical activity 16: use circuit diagrams to construct appropriate circuits to investigate the I–V characteristics of a variety of circuit elements, including a filament lamp, a diode and a resistor at constant temperature.

Topics not assessed in this paper:

- 6.2.2 Series and parallel circuits
- 6.2.3 Domestic uses and safety
- 6.3.2 Internal energy and energy transfers

Physics Higher Paper 2

For this paper, the following list shows the major focus of the content of the exam:

- 6.5.1 Forces and their interactions
- 6.5.4.1 Describing motion along a line
- 6.5.4.2 Forces, accelerations and Newton's Laws of motion
- 6.5.5 Momentum
- 6.6.2 Electromagnetic waves
- 6.7.2 The motor effect

Required practical activity that will be assessed:

Required practical activity 21: investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface.

Topics not assessed in this paper:

- 6.5.3 Forces and elasticity
- 6.5.4.3 Forces and braking
- 6.7.1 Permanent and induced magnetism, magnetic forces and fields