# 2022 Summer Exams

# Guidance for Parents & Pupils

Ahead of the 2022 Summer Examination series, each exam board has published advance information on the content of their GCSEs. As you may be aware, this is part of an unprecedented package of support for students, including changes to non-exam assessment, providing formulae and equation sheets in some exams and more generous grading, to help make exams as fair as possible this year. Consequently, please find below, guidance from the exam boards for each subject studied by Year 11 pupils at Bridgewater on the topics that will, or will not, be on identified exam papers.

There is advance information for all GCSE subjects, with the exceptions of the following subjects which have some optional topics or content instead.

- English Literature
- History
- Geography,

and also

- Art and Design, which encompasses both Bridgewater's Art and Textiles GCSEs, as they do not have written exams

Due to the variety of subjects, specifications covered and how those are assessed, advance information will be different for each subject. As such, students will receive guidance from their subject teachers in how to best make use of it. In addition, we would recommend students using the advanced information to structure their own personal revision and we would encourage the sharing of this information with parents, carers or private tutors as appropriate, to support revision outside of school. Please do get in touch with the relevant classroom teacher or Subject Lead for any further subject specific information – a list of Heads of Subject and contact emails can be found at the end of this guide

IMPORTANT point

For specifications with synoptic assessments, topics not explicitly given in the advance information may appear, e.g. where students are asked to bring together knowledge, skills and understanding from across the specification

*This means that whilst exam boards have provided information as to content that will be included on specific papers for each subject, it is entirely possible that other topics/aspects of the course not listed as being on that paper may still appear within selected questions to assess the students' wider understanding of the subject*

Ofqual have outlined the following 5 steps as part of the process in awarding examination grades this year:
**Generous grading:** Exams will be graded more generously this year providing a safety net for students.
**Changes to coursework:** Non-exam assessment and fieldwork requirements adjusted, with flexibility in some subjects.
**Optional content:** There will be less content or fewer topics for students to learn in some GCSEs.
**Support materials:** Students will get formulae and equation sheets in some exams and won't have to memorise as much.
**Advance information:** Exam boards will give information on the focus of exams for most subjects to help students revise.
Please note that all 5 steps are not being applied to every qualification equally. The full details from Ofqual can be found here: https://www.gov.uk/guidance/subject-by-subject-support-for-gcse-as-and-a-level-students-in-2022#

The information published by OFQUAL last month was specific to GCSE qualifications. BTEC and other Vocational qualifications were not included within this information. For clarity however, the Heads of Subject for our BTEC and Vocational subjects have provided a summary of how their qualifications will be achieved this summer within the guidance below

The Personal Learning Check Lists (revision lists ) for each subject for the Summer Exams can be found on the school website under the 'Our School' & 'Key Stage 4 Subjects' tabs or at the following link
https://bridgewaterhigh.org/key-stage-4-subjects/
A copy of this guidance can also be found here.

If you have any subject specific queries please contact the relevant Subject Lead for any further information – a list of Heads of Subject and contact emails can be found at the end of this guide. If you have any queries regarding the overall process please contact myself.

Please also find below, a letter from Dr Jo Saxton, Chief Regulator of OFQUAL, that we have been asked to share with our students

Yours Sincerely

Mr P Jones
Deputy Headteacher

**Letter from Dr Jo Saxton, Chief Regulator of OFQUAL**

February 2022

Dear Students,

In my job as Chief Regulator of qualifications I get to meet many students, teachers and parents from different parts of the country. Speaking to students like you, who are getting ready for formal exams and assessments, it's clear to me that you want life to get back to normal and that you would like as much certainty about what is going to happen as possible.

For that reason the exam boards have, this week, published for you 'advance information' on their websites. This is subject by subject, specification by specification, specific outlines of the focus of questions across many of your summer exams. We've added a tool on our website which shows you what is available for each subject.

These materials are just one of the ways we are working to make sure that, despite the disruption caused by the coronavirus (COVID-19) pandemic, your exams and formal assessments are less daunting.

You will also get formulae sheets for GCSE maths exams and updated equation sheets for GCSE physics and combined science exams, so you won't have to memorise as much.

As well as advance information and formulae sheets, you will be supported by generous grading, which will provide you with a safety-net to protect you from just missing out on a grade.

We will also publish videos, infographics and other materials to help those of you who have been prevented from ever sitting a formal exam, to know what that feels like.

You can find more information at the following official sources:

- Rolling update
- Ofqual Instagram
- Ofqual blog

Best wishes,

Dr Jo Saxton Ofqual Chief Regulator

# CORE SUBJECTS

# GCSE

# ENGLISH LANGUAGE

| Paper 1 |
| --- |
| No topics have been highlighted for major focus and therefore all parts of the specification must be revised.<br>This includes the different styles of reading question for section A:<br>- Location and retrieval<br>- Language Analysis<br>- Evaluation<br><br>Students will also be examined on narrative writing for section B. |
| **There is no change to the assessment of this paper.** |

| Paper 2 |
| --- |
| Section A<br>No topics have been highlighted for major focus and therefore all parts of the specification must be revised.<br>This includes the different styles of reading question for section A:<br>- Location and retrieval<br>- Language Analysis<br>- Evaluation<br>- Comparison |
| Section B<br>Students have been told that they will be assessed on:<br>Formal letters<br>Magazine article<br>They should focus their revision on these two writing styles from this point. |

# ENGLISH LITERATURE

| Paper 1 |
| --- |
| No topics have been highlighted for major focus and therefore all parts of the specification must be revised. As broad categories this includes:<br>- Romeo and Juliet<br>- An Inspector Calls |
| **There is no change to the assessment of this paper.** |

| Paper 2 |
| --- |
| No topics have been highlighted for major focus and therefore all parts of the specification must be revised. As broad categories this includes:<br>- Poetry Anthology<br>- Unseen poetry |
| **There is no change to the assessment of this paper.** |

Please note : Ordinarily, students would have sat another question on War of the Worlds. This was removed from the exam at the start of the year, therefore students have not been taught this.

# MATHEMATICS

## Higher Tier

**Paper 1 – Non Calculator**

The following topics will be a major focus of the content of this exam paper:

| Number | Ratio | Algebra | Geometry | Probability | Statistics |
|---|---|---|---|---|---|
| • **Fraction of an amount**<br>• **Fraction arithmetic**<br>• Recurring decimal to fraction<br>• **Product of prime factors**<br>• Negative and fractional indices<br>• Simplification of surds<br>• **Standard Form conversion and calculation** | • **Percentage of an amount**<br>• **Write as a ratio, share in a ratio**, use of ratio, ratio to fraction<br>• Equations of proportion<br>• **Density** | • **Simplification**<br>• Expansion of brackets<br>• Algebraic fractions<br>• **Linear inequality**<br>• Form an equation<br>• **Quadratic equation**<br>• Equation of a tangent to a circle<br>• **Quadratic graph**<br>• Speed-time graph<br>• Gradients of parallel and perpendicular lines<br>• Gradient of a curve | • **Angles in a polygon**<br>• Area of a triangle<br>• **Volume of a cube**<br>• Surface area of a cuboid<br>• Area of a sector<br>• Pythagoras's Theorem<br>• **Exact trig. values**<br>• Vector geometry | • **Probability**<br>• Independent combined events | • Cumulative frequency<br>• Mean<br>• Interquartile range |

The following topic(s) will not be assessed in this paper:
No information given by exam board.

**Paper 2 - Calculator**

The following topics will be a major focus of the content of this exam paper:

| Number | Ratio | Algebra | Geometry | Probability | Statistics |
|---|---|---|---|---|---|
| • **Error interval**<br>• Calculator use | • **Area**<br>• **Depreciation**<br>• **Use of ratio**<br>• **Direct proportion**<br>• **Currency conversion**<br>• Inverse proportion<br>• Pressure | • **Simplification**<br>• **Expansion of bracket**<br>• **Factorisation**<br>• **Laws of indices**<br>• Linear equation<br>• Equations of parallel lines<br>• Form an equation<br>• Quadratic inequality<br>• **Coordinates**<br>• Transformations of functions<br>• Graphs of trigonometric functions<br>• Inverse and composite functions | • **Transformations**<br>• Circle theorems<br>• **Area of a rectangle**<br>• Volume of composite solid<br>• Sine and Cosine Rules | • Venn diagram<br>• Probability from a Venn diagram | • Box plot<br>• Lower and upper quartiles<br>• Compare distributions<br>• Capture-recapture method |

The following topic(s) will not be assessed in this paper:
No information given by exam board.

**Paper 3 - Calculator**

The following topics will be a major focus of the content of this exam paper:

| Number | Ratio | Algebra | Geometry | Probability | Statistics |
|---|---|---|---|---|---|
| • **Negative number**<br>• Laws of indices<br>• Bounds<br>• Product rule for counting | • **Time**<br>• **Percentage decrease**<br>• Depreciation<br>• **Reverse percentage**<br>• **Write as a ratio**<br>• **1 : n form**<br>• Share in a ratio<br>• **Direct proportion**<br>• **Average speed**<br>• General iterative processes | • **Simplification**<br>• **Expansion of bracket**<br>• **Substitute values**<br>• Difference of two squares<br>• Expansion of brackets<br>• **Change subject of a formula**<br>• **Forming an expression**<br>• Algebraic fractions<br>• Set up and solve equation<br>• Simultaneous equations linear/ quadratic<br>• Gradient of a straight line graph | • Circle theorems<br>• **Area of a trapezium**<br>• Similar triangles<br>• **Pythagoras theorem**<br>• Trigonometry<br>• Trigonometry in 3-D<br>• Column vectors | • Dependent combined events | • **Frequency polygon**<br>• Histogram |

The following topic(s) will not be assessed in this paper:

No information given by exam board.

## Foundation Tier

**Paper 1 – Non Calculator**

The following topics will be a major focus of the content of this exam paper:

| Number | Ratio | Algebra | Geometry | Probability | Statistics |
|---|---|---|---|---|---|
| • Money<br>• Negative number<br>• Order fractions, decimals, percentages<br>• **Fraction of an amount**<br>• **Fraction arithmetic**<br>• Place value<br>• **Product of prime factors**<br>• **Standard Form conversion and calculation**<br>• Estimation | • Length conversion<br>• **Percentage of an amount**<br>• Percentage increase<br>• **Write as a ratio, share in a ratio**<br>• Direct proportion<br>• Speed and **density** | • **Simplification**<br>• Substitute values<br>• Linear inequality<br>• Quadratic equation<br>• Quadratic graph<br>• Linear sequence | • Reflection<br>• Plan and elevation<br>• **Angles in a polygon**<br>• **Volume of a cube** and cylinder<br>• **Exact trig. values** | • **Probability**<br>• Frequency tree | • Pictogram<br>• Bar chart<br>• Stem and leaf diagram |

The following topic(s) will not be assessed in this paper:

No information given by exam board.

**Paper 2 - Calculator**

The following topics will be a major focus of the content of this exam paper:

| Number | Ratio | Algebra | Geometry | Probability | Statistics |
|---|---|---|---|---|---|
| • Money<br>• Negative number<br>• Fraction arithmetic<br>• Order fractions, order integers<br>• Multiples<br>• Rounding<br>• **Error interval**<br>• Mathematical symbols | • Mass, time, **area**<br>• Scale drawing<br>• Decimal to percentage<br>• Percentage profit<br>• **Depreciation**<br>• Write as a ratio, **use of ratio**<br>• Direct proportion<br>• **Currency conversion** | • **Simplification**<br>• **Expansion of bracket**<br>• **Factorisation**<br>• **Laws of indices**<br>• Linear simultaneous equations<br>• **Coordinates**<br>• Straight line graph<br>• Functions: Number machines | • Polygons<br>• Circles<br>• Parallel and perpendicular lines<br>• **Transformations**<br>• Angles in a triangle<br>• Vertically opposite angles<br>• **Area of a rectangle** | • Tree diagram<br>• Combined events | • Interpret graph<br>• Two-way table<br>• Frequency table<br>• Mode<br>• Median<br>• Mean |

The following topic(s) will not be assessed in this paper:

No information given by exam board.

**Paper 3 - Calculator**

The following topics will be a major focus of the content of this exam paper:

| Number | Ratio | Algebra | Geometry | Probability | Statistics |
|---|---|---|---|---|---|
| • Four operations<br>• **Negative number**<br>• Fraction of an amount<br>• One amount as a fraction of another<br>• Equivalent fractions<br>• Factors<br>• Lowest Common Multiple<br>• Square root<br>• Rounding<br>• Calculator use | • **Time**<br>• Compound units<br>• Scale drawing<br>• Percentage to fraction<br>• One quantity as a percentage of another<br>• **Percentage decrease**<br>• **Reverse percentage**<br>• **Write as a ratio**<br>• **1 : n form**<br>• **Direct proportion**<br>• Average speed | • **Simplification**<br>• **Expansion of bracket**<br>• Factorisation<br>• **Substitute values**<br>• **Change subject of a formula**<br>• **Forming an expression**<br>• Linear equation<br>• Form an equation<br>• Linear sequence | • Triangle properties<br>• Quadrilaterals<br>• Triangular prism<br>• Angle properties of parallel lines<br>• Angles in a triangle<br>• Vertically opposite angles<br>• Bearings<br>• Area of a triangle and **trapezium**<br>• **Pythagoras Theorem** | • Probability scale<br>• Probability | • **Frequency polygon**<br>• Median<br>• Range<br>• Comparison of distributions |

The following topic(s) will not be assessed in this paper:

No information given by exam board.

# THE SCIENCES

# SEPARATE SCIENCE : BIOLOGY

## Higher Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

- 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.

The following topic(s) will not be assessed in this paper:

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

**Paper 2**

the following topics will be a major focus of the content of this exam paper:

- 4.5.2 The human nervous system
- 4.5.3 Hormonal control in humans
- 4.5.4 Plant hormones
- 4.6.1 Reproduction
- 4.6.3 The development of understanding of genetics and evolution

Required practical activities that will be assessed:

- Required practical activity 7: carry out an investigation into human reaction times.
- 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.

The following topic(s) will not be assessed in this paper:

4.5.2.2 The brain
• 4.5.2.3 The eye
• 4.5.3.3 Maintaining water and nitrogen balance in the body
• 4.6.1.3 Advantages and disadvantages of sexual and asexual reproduction
• 4.6.1.5 DNA structure
• 4.6.1.8 Sex determination
• 4.6.2 Variation and evolution
• 4.6.3.1 Theory of evolution
• 4.6.3.2 Speciation
• 4.6.3.3 The understanding of genetics
• 4.6.3.7 Resistant bacteria
• 4.7.1.4 Adaptations
• 4.7.2.2 How materials are cycled
• 4.7.2.3 Decomposition
• 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
• 4.7.4 Trophic levels in an ecosystem
• 4.7.5 Food production

## Foundation Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

• 4.1.1 Cell structure
• 4.1.3 Transport in cells
• 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: how a light microscope is used 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.
• Required practical activity 6: investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed.

The following topic(s) will not be assessed in this paper:

• 4.1.1.4 Cell differentiation
• 4.2.1 Principles of organisation

- 4.2.2.3 Blood
- 4.2.2.7 Cancer
- 4.3.1.5 Protist diseases
- 4.4.1.3 Uses of glucose from photosynthesis
- 4.4.2.1 Aerobic and anaerobic respiration
- 4.4.2.2 Response to exercise
- 4.4.2.3 Metabolism

**Paper 2**

the following topics will be a major focus of the content of this exam paper:

- 4.5.2 The human nervous system
- 4.5.3 Hormonal control in humans
- 4.5.4 Plant hormones
- 4.6.1 Reproduction
- 4.6.3 The development of understanding of genetics and evolution

Required practical activities that will be assessed:

- Required practical activity 7: carry out an investigation into human reaction times.
- 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.

The following topic(s) will not be assessed in this paper:

- 4.5.2.2 The brain
- 4.5.2.3 The eye
- 4.5.3.3 Maintaining water and nitrogen balance in the body
- 4.6.1.3 Advantages and disadvantages of sexual and asexual reproduction
- 4.6.1.5 DNA structure
- 4.6.1.8 Sex determination
- 4.6.2 Variation and evolution
- 4.6.3.1 Theory of evolution
- 4.6.3.2 Speciation
- 4.6.3.3 The understanding of genetics
- 4.6.3.7 Resistant bacteria
- 4.7.1.4 Adaptations
- 4.7.2.2 How materials are cycled
- 4.7.2.3 Decomposition
- 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
- 4.7.4 Trophic levels in an ecosystem
- 4.7.5 Food production

# SEPARATE SCIENCE : CHEMISTRY

## Higher Tier

**Paper 1**

The following topics will be a major focus of the content of this exam paper:

- 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, e.g. acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

The following topic(s) will not be assessed in this paper:

- 4.2.4 Bulk and surface properties of matter including nanoparticles

**Paper 2**

The following topics will be a major focus of the content of this exam paper:

- 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.

The following topic(s) will not be assessed in this paper:

• 4.9.2 Carbon dioxide and methane as greenhouse gases

## Foundation Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

• 4.1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes
• 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
• 4.2.4 Bulk and surface properties of matter including nanoparticles
• 4.4.2 Reactions of acids
• 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, e.g. acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

The following topic(s) will not be assessed in this paper:

• 4.5.2 Chemical cells and fuel cells

**Paper 2**

The following topics will be the major focus of the content of this exam paper:

• 4.6.1 Rate of reaction
• 4.6.2 Reversible reactions and dynamic equilibrium
• 4.7.1 Carbon compounds as fuels and feedstock
• 4.8.3 Identification of ions by chemical and spectroscopic means
• 4.9.1 The composition and evolution of the Earth's atmosphere
• 4.10.1 Using the Earth's resources and obtaining potable water
• 4.10.2 Life cycle assessment and recycling
• 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 6: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate Rf values.
• 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.
• Required practical activity 8: analysis and purification of water samples from different sources, including pH, dissolved solids and distillation.

The following topic(s) will not be assessed in this paper:

• 4.8.2 Identification of common gases

# SEPARATE SCIENCE : PHYSICS

## Higher Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

- Energy changes in a system, and the ways energy is stored before and after such changes
- Conservation and dissipation of energy
- Energy transfers
- Changes of state and the particle model
- Internal energy and energy transfers
- 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. Volume should be determined from the dimensions of regularly shaped objects, and by a displacement technique for irregularly shaped objects. Dimensions to be measured using appropriate apparatus such as a ruler, micrometer or Vernier callipers.

The following topic(s) will not be assessed in this paper:

- Current, potential difference and resistance
- Series and parallel circuits
- Domestic uses and safety
- Particle model and pressure
- Atoms and isotopes
- Hazards and uses of radioactive emissions and of background radiation
- Nuclear fission and fusion

**Paper 2**

the following topics will be a major focus of the content of this exam paper:

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

The following topic(s) will not be assessed in this paper:

- Moments, levers and gears
- Electromagnetic waves

- Black body radiation
- Permanent and induced magnetism, magnetic forces and fields

## Foundation Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

- Energy changes in a system, and the ways energy is stored before and after such changes
- Conservation and dissipation of energy
- Current, potential difference and resistance Static electricity
- Changes of state and the particle model
- Internal energy and energy transfers
- Atoms and nuclear radiation
- 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. Volume should be determined from the dimensions of regularly shaped objects, and by a displacement technique for irregularly shaped objects. Dimensions to be measured using appropriate apparatus such as a ruler, micrometer or Vernier callipers.

The following topic(s) will not be assessed in this paper:

- Domestic uses and safety of electricity
- Particle model and pressure
- Atoms and isotopes
- Nuclear fission and fusion
-

**Paper 2**

the following topics will be a major focus of the content of this exam paper:

- Forces and their interactions
- Work done and energy transfer
- Describing motion along a line
- Waves in air, fluids and solids
- Electromagnetic waves
- Solar system; stability of orbital motions; satellites
- Required practical activity 9: investigate the reflection of light by different types of surface and the refraction of light by different substances.

The following topic(s) will not be assessed in this paper:

- Moments, levers and gears
- Forces, accelerations and Newton's Laws of motion
- Forces and braking
- Black body radiation
- Red-shift

# TRILOGY SCIENCE: BIOLOGY

## Higher Tier

***Paper 1***

The following topics will be a major focus of the content of this exam paper:

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

Required practical activities that will be assessed:

- Required practical activity 3: use qualitative reagents to test for a range of carbohydrates, lipids and proteins.
- Required practical activity 4: investigate the effect of pH on the rate of reaction of amylase enzyme.
- Required practical activity 5: investigate the effect of light on the rate of photosynthesis of an aquatic plant such as pondweed.

The following topic(s) will not be assessed in this paper:

- 4.1.1.5 Microscopy
- 4.1.3 Transport in cells
- 4.2.3 Plant tissues, organs and systems
- 4.3.1.2 Viral diseases
- 4.3.1.4 Fungal diseases
- 4.3.1.5 Protist diseases
- 4.3.1.6 Human defence systems
- 4.4.1.3 Uses of glucose from photosynthesis
- 4.4.2.2 Response to exercise

**Paper 2**

The following topics will be a major focus of the content of this exam paper:

- 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 activities 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.

The following topic(s) will not be 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

## Foundation Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

- 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.

The following topic(s) will not be 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

**Paper 2**

The following topics will be a major focus of the content of this exam paper:

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 activities 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.

The following topic(s) will not be 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

# TRILOGY SCIENCE : CHEMISTRY

## Higher Tier

**Paper 1**

The following topics will be a major focus of the content of this exam paper:

- 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, e.g. acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

The following topic(s) will not be assessed in this paper:

- Not applicable

**Paper 2**

The following topics will be a major focus of the content of this exam paper:

• 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 Rf values.

The following topic(s) will not be assessed in this paper:

• 5.8.2 Identification of common gases

## Foundation Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

• 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, e.g. acid plus metals, acid plus carbonates, neutralisations, displacement of metals.

The following topic(s) will not be assessed in this paper:

• Not applicable

| Paper 2 |
|---|
| The following topics will be a major focus of the content of this exam paper:<br><br>• 5.6.1 Rate of reaction<br>• 5.6.2 Reversible reactions and dynamic equilibrium<br>• 5.7.1 Carbon compounds as fuels and feedstock<br>• 5.8.1 Purity, formulations and chromatography<br>• 5.9.1 The composition and evolution of the Earth's atmosphere<br>• 5.9.3 Common atmospheric pollutants and their sources<br>• 5.10.1 Using the Earth's resources and obtaining potable water<br><br>Required practical activities that will be assessed:<br><br>• 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.<br>• Required practical activity 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate Rf values. |
| The following topic(s) will not be assessed in this paper:<br><br>• 5.9.2 Carbon dioxide and methane as greenhouse gases |

# TRILOGY SCIENCE : PHYSICS

## Higher Tier

| Paper 1 |
|---|
| The following topics will be a major focus of the content of this exam paper:<br>• 6.1.1 Energy changes in a system, and the ways energy is stored before and after such changes<br>• 6.2.4 Energy transfers<br>• 6.3.1 Changes of state and the particle model<br>• 6.3.3 Particle model and pressure<br>• 6.4.1 Atoms and isotopes<br>• 6.4.2 Atoms and nuclear radiation<br><br>Required practical activities that will be assessed:<br>• 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.<br>• 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. |

The following topic(s) will not be 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

**Paper 2**

The following topics will be a major focus of the content of this exam paper:
• 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 activities 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.

The following topic(s) will not be 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

## Foundation Tier

**Paper 1**

the following topics will be a major focus of the content of this exam paper:
• 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

The following topic(s) will not be assessed in this paper:

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

| |
|---|
| |

| **Paper 2** |
|---|
| The following topics will be a major focus of the content of this exam paper:<br>• 6.5.1 Forces and their interactions<br>• 6.5.4.1 Describing motion along a line<br>• 6.5.4.2 Forces, accelerations and Newton's Laws of motion<br>• 6.5.4.3 Forces and braking<br>• 6.6.2 Electromagnetic waves<br>• 6.7.1 Permanent and induced magnetism, magnetic forces and fields<br>• 6.7.2 The motor effect<br><br>Required practical activities that will be assessed:<br><br>• Required practical activity 21: investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface. |
| The following topic(s) will not be assessed in this paper:<br>• 6.5.3 Forces and elasticity |

# GCSE
# OPTION SUBECTS

# ART & TEXTILES

**GCSE Art and textiles will be 100% coursework in 2022**

**Unit 1- Coursework (NEA- Non-exam assessment)**

Students will only complete unit one in 2022. All coursework that pupils have been working on throughout year 10 and year 11 will be handed in after Easter.
The work submitted for this component will be marked as a whole. Students should carefully select, organise and present their portfolio and must ensure that it provides evidence of meeting all four assessment objectives. They must provide evidence of drawing activity and written annotation.

The following coursework work must be submitted:-

1. **A sustained project**, the work must evidence the journey from initial engagement with an idea(s) to the realisation of intentions. This will give students the opportunity to demonstrate, through an extended creative response, their ability to draw together different areas of knowledge, skills and/or understanding from across their course of study.
2. **A selection of further work** resulting from activities such as experiments; skills-based workshops; mini and/or foundation projects and independent study.

**Unit 2 -Cancelled - (ESA- Externally set assignment)**

The Exam board has cancelled the externally set assignment due to the impact of Covid.

# COMPUTER SCIENCE

**Paper 1**

The following topics will be a major focus of the content of this exam paper:

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)
1.2.2 Secondary storage
1.2.3 Units
- The units of data storage

1.2.4 Data Storage
- Numbers.
- Characters.
- Images.
- Sound.

1.2.5 Compression
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.

The following topic(s) will not be assessed in this paper:
1.5 System Software – the complete section has been removed

**Paper 2**

the following topics will be a major focus of the content of this exam paper:
- 2.1 Algorithm
- 2.2 Programming techniques
- 2.3 Robust Programs
- 2.4 Boolean Logic
- 2.5 IDEs and Translators

The following topic(s) will not be assessed in this paper:
There are no adaptations for Paper 2 all content will be included.

# DESIGN TECHNOLOGY

# PRODUCT DESIGN & GRAPHICS

**Written Paper**

The following topics will be a major focus of the content of this exam paper:

- Materials and their properties
- Stock forms and origins of materials
- How material properties can be modified
- Surface treatments and finishes
- Tools and equipment used to cut, shape and mould materials
- Use of production aids such as jigs and templates
- Methods of production in school and industry
- Quality control and tolerances
- CAD/CAM
- Ergonomics and anthropometrics
- Social, moral, economic and environmental/sustainability issues
- User needs
- Research
- Prototype Development
- Types of communication [drawing and modelling techniques]
- Marking out and cutting materials efficiently to minimise waste
- Working Safely

The following topic(s) will not be assessed in this paper:

- Looking at the work of others/Designers
- Design Strategies

# FOOD PREPARATION & NUTRITION

**GCSE Food Preparation and Nutrition**

This advance information covers Paper 1: Food Preparation and Nutrition only
Topics not listed **may appear** in Section A or in other questions in Section B

the following topics will be a major focus of the content of this exam paper:

**3.2.3.1 Making informed choices**
• the current guidelines for a healthy diet
• portion size and costing when meal planning
• how people's nutritional needs change and how to plan a balanced diet for different life stages
• how to plan a balanced meal for specific dietary groups
• how to maintain a healthy body weight throughout life
**3.2.3.4 Diet, nutrition and health**
• the relationship between diet, nutrition and health
• major diet related health risks
**3.3.2.2 Carbohydrates**
• Gelatinisation
• Dextrinisation
• Caramelisation
**3.4.2.1 Buying and storing food**
• the food safety principles when buying and storing food
**3.4.2.2 Preparing, cooking and serving**
• the food safety principles when preparing, cooking and serving food
**3.5.1.1 Factors affecting food choice**
• To know and understand factors which may influence food choice.
**3.6.1.2 Food and the environment**
• environmental issues associated with food
**3.6.2.1 Food production**
• Primary and Secondary stages of processing and production
• how processing affects the sensory and nutritional properties of ingredients

The following topic(s) will not be assessed in this paper:
There are no adaptations - all content will be included.

# FRENCH

## Higher Tier Writing only

| Paper 4: Writing |
| --- |
| The following topics will be a major focus of the content of this exam paper:<br>Theme 1 – Identity and culture<br>Topic 1: Me, my family and friends<br>Topic 2: Technology in everyday life<br>Topic 3: Free-time activities<br><br>Theme 2 – Local, national, international and global areas of interest<br>Topic 1: Home, town, neighbourhood and region<br>Topic 2: Social issues<br>Topic 3: Global issues<br><br>Theme 3 – Current and future study and employment<br>Topic 1: My studies<br>Topic 2: Life at school/college<br>Topic 3: Education post-16<br>Topic 4: Jobs, career choices and ambitions |
| The following topic(s) will not be assessed in this paper:<br>Theme 1 – Identity and culture<br>Topic 4: Customs and festivals in French-speaking countries/communities<br><br>Theme 2 – Local, national, international and global areas of interest<br>Topic 4: Travel and tourism |

## Foundation Tier Writing only

| Paper 4: Writing |
| --- |
| The following topics will be a major focus of the content of this exam paper:<br>Theme 1 – Identity and culture<br>Topic 1: Me, my family and friends<br>Topic 2: Technology in everyday life<br>Topic 3: Free-time activities<br><br>Theme 2 – Local, national, international and global areas of interest<br>Topic 1: Home, town, neighbourhood and region<br>Topic 2: Social issues<br><br>Theme 3 – Current and future study and employment<br>Topic 1: My studies<br>Topic 2: Life at school/college<br>Topic 4: Jobs, career choices and ambitions |
| |

The following topic(s) will not be assessed in this paper:
Theme 1 – Identity and culture
Topic 4: Customs and festivals in French-speaking countries/communities
Theme 2 – Local, national, international and global areas of interest
Topic 3: Global issues
Topic 4: Travel and tourism

Theme 3 – Current and future study and employment
Topic 3: Education post-16

# GEOGRAPHY

| Paper 1 Physical |
| --- |
| the following topics will be a major focus of the content of this exam paper:<br>• Section A - The Challenge of Natural Hazards (Tectonics, Tropical Storms and Global Warming)<br>• Section B - The Living World (Ecosystems, Rainforests)<br>• Section C - Physical Landscapes in the UK (Rivers and Coasts) |
| The following topic(s) will not be assessed in this paper: **Option on the paper but our pupils do NOT attempt it.**<br>• Section C – (Glaciation) |

| Paper 2 Human |
| --- |
| the following topics will be a major focus of the content of this exam paper:<br>• Section A - Urban issues and challenges (Urbanisation, Mumbai & Manchester challenges and opportunities, Sustainable Cities)<br>• Section C - The challenge of resource management (Food, Energy and Water in the UK, Global Energy Resources) |
| The following topic(s) will not be assessed in this paper: **Option on the paper but our pupils do NOT attempt it.**<br>• Section B The changing economic world |

| Paper 3 Geographical Applications |
| --- |
| the following topics will be a major focus of the content of this exam paper:<br>• Section A - Issue Evaluation. (The Pre-release booklet will be issued on 22nd March 2022)<br>• Section B – Fieldwork. (Generic Fieldwork questions with graphs and data manipulation |
| The following topic(s) will not be assessed in this paper:<br>• Section B – Specific questions about a compulsory piece of Urban and River fieldwork |

# GERMAN

## Higher Tier Writing only

| Paper 4: Writing |
| --- |
| The following topics will be a major focus of the content of this exam paper:<br>Theme 1 – Identity and culture<br>Topic 2: Technology in everyday life<br>Topic 3: Free-time activities<br><br>Theme 2 – Local, national, international and global areas of interest<br>Topic 1: Home, town, neighbourhood and region<br>Topic 4: Travel and tourism<br><br>Theme 3 – Current and future study and employment<br>Topic 2: Life at school/college<br>Topic 3: Education post-16<br>Topic 4: Jobs, career choices and ambitions |
| The following topic(s) will not be assessed in this paper:<br>Theme 1 – Identity and culture<br>Topic 1: Me, my family and friends<br>Topic 4: Customs and festivals in German-speaking countries/communities<br><br>Theme 2 – Local, national, international and global areas of interest<br>Topic 2: Social issues<br>Topic 3: Global issues<br><br>Theme 3 – Current and future study and employment<br>Topic 1: My studies |

## Foundation Tier Writing only

| Paper 4: Writing |
| --- |
| The following topics will be a major focus of the content of this exam paper:<br>Theme 1 – Identity and culture<br>Topic 2: Technology in everyday life<br>Topic 3: Free-time activities<br><br>Theme 2 – Local, national, international and global areas of interest<br>Topic 1: Home, town, neighbourhood and region<br>Topic 4: Travel and tourism<br><br>Theme 3 – Current and future study and employment<br>Topic 2: Life at school/college<br>Topic 4: Jobs, career choices and ambitions |
| The following topic(s) will not be assessed in this paper:<br>Theme 1 – Identity and culture<br>Topic 1: Me, my family and friends<br>Topic 4: Customs and festivals in German-speaking countries/communities |

Theme 2 – Local, national, international and global areas of interest
Topic 2: Social issues
Topic 3: Global issues

Theme 3 – Current and future study and employment
Topic 1: My studies
Topic 3: Education post-16

# HISTORY

| Paper 1 (Medicine in Britain c1250-present and the British sector of the Western Front, 1914-18: injuries, treatment and the trenches. |
|---|
| No topics have been highlighted for major focus and therefore all parts of the specification must be revised. As broad categories this includes:<br>• c1250 - c1500: Medicine in Medieval England<br>• c1500 - c1700: The Medical Renaissance in England<br>• c1700 - c1900: Medicine in 18th and 19th century Britain<br>• C1900 – present: Medicine in Modern Britain<br>• Historic Environment: The British sector of the Western Front. |
| **There is no change to the assessment of this paper.** |

| Paper 2 Elizabethan England 1558-1588. |
|---|
| No topics have been highlighted for major focus and therefore all parts of the specification must be revised. As broad categories this includes:<br>• Queen Elizabeth, her government and religion between 1558-1568.<br>• Challenges to Elizabeth at home and abroad, 1569-1588.<br>• Elizabethan society in the Age of Exploration, 1558-1588. |
| **There is no change to the assessment of this paper.** |

| Paper 3 Weimar and Nazi Germany, 1918-1939 |
|---|
| No topics have been highlighted for major focus and therefore all parts of the specification must be revised. As broad categories this includes:<br>• The Weimar Republic 1918-1929.<br>• Hitler's rise to power, 1919-1933.<br>• Nazi control and dictatorship, 1933-39.<br>• Life in Nazi Germany, 1933-1939. |
| **There is no change to the assessment of this paper.** |

*Please note : Ordinarily, students would have sat another paper on the American West but as the History Department anticipated changes, this unit has not been taught to Year 11.*

# MUSIC

**Appraising Paper**

the following topics will be a major focus of the content of this exam paper:

- Set works questions will focus on **section B of the Badinerie** and on the **second verse and chorus of Africa**.

The exam board has also identified the specific genres students can expect for the unprepared extracts, the extended response and the focus of the dictation question

- **Unprepared extracts** will be in the following genres:
  - *Romantic music*
  - *vocal ensembles*
  - *film music*
  - *pop*

  The **extended response** will be in Area of Study 3, **Music for Film**

- The **dictation question** will require candidates to **notate pitch only**.

Questions for the unprepared extracts and extended response will focus on the analysis of music with reference to the musical elements (Dynamics, Rhythm, Structure, Melody/Pitch, Instrumentation, Tempo, Texture, Tonality, Harmony) as well as stylistic traits of the music heard. **Here are a few examples of the type of questions** that may be asked for the unprepared extracts:

- Identify the time signature.
- What is the metre of this piece?
- Identify the structure of this piece?
- Identify the chord in bar x.
- Identify a bar where chord V is used.
- Identify the interval in bar y.
- Describe how the dynamics change.
- Describe how the texture changes.
- Name the instrument that plays in the beginning.
- Name the orchestral family heard in the extract.
- Explain how the music reflects a sad, mournful character.
- Explain how the music reflects an uplifting mood.
- Name the key of the extract.
- Identify the tonality of the extract.
- Describe the melody and accompaniment.

The following topic(s) will not be assessed in this paper:

- Section A of the Badinerie, first verse, instrumental, coda of Africa.
- "World" music topics (e.g. Bhangra, Indian music, folk)
- Classical Music (e.g. Mozart) and 20th century music composers
- Jazz and blues music

# PHYSICAL EDUCATION

**Paper 1**

the following topics will be a major focus of the content of this exam paper:

- Applied Anatomy and Physiology
- Bones, skeleton, muscles
- Synovial joints
- Movements at a joint
- Muscles- Agonists- Antagonists pairs
- Muscle contraction
- Functions of the cardio-respiratory system
- Pathway of air, gas exchange, blood vessels,
- Redistribution of blood
- Structure of heart, Q=SVxHR
- Spirometer, mechanics of breathing
- Lung volumes
- Aerobic and Anaerobic exercise equations and application
- EPOC
- Short- and long-term effects of exercise
- Movement Analysis
- Lever systems and mechanical advantage
- 3 class of levers, Analysis of basic movement
- Physical Training
- Components of fitness all 10, Agility-Power and Muscular Endurance
- Reasons for fitness testing limitations
- Effective use of a warm up and a cool down

The following topic(s) **must be considered when revising** paper 1:

- For each paper the list shows the major focus of the content of the exam.
- Topics not explicitly given in the list may appear in multiple-choice questions, low tariff questions or via synoptic questions. Synoptic questions are those that bring together knowledge, skills and understanding from across the specification.
- Students will be credited for using any relevant knowledge from any non-listed topic areas when answering questions.
- Students will still be expected to apply their knowledge.
- Students will be expected to draw on knowledge, skills and understanding from across the specification when responding to synoptic questions.

**Paper 2**

the following topics will be a major focus of the content of this exam paper:

- Sports Psychology
- Classifications of skill
- Types of Goals
- Information Processing
- Sociocultural Influences

- Social Groups
- Gender and Age
- Race/Religion/Culture
- Commercialisation
- Advantages/Disadvantages of commercialisation
- Advantages and disadvantages of Technology
- Conduct
- Blood Doping
- Drugs in sport
- Pros/Cons Drugs
- Spectator behaviour
- Health and Fitness
- Balanced diet and energy
- Nutrition
- Water Balance

The following topic(s) **must be considered when revising** paper 2:

- For each paper the list shows the major focus of the content of the exam.
- Topics not explicitly given in the list may appear in multiple-choice questions, low tariff questions or via synoptic questions. Synoptic questions are those that bring together knowledge, skills and understanding from across the specification.
- Students will be credited for using any relevant knowledge from any non-listed topic areas when answering questions.
- Students will still be expected to apply their knowledge.
- Students will be expected to draw on knowledge, skills and understanding from across the specification when responding to synoptic questions.

# RELIGIOUS STUDIES

**Paper 1 - Religions**

The information below identifies the main subject topic areas used as the primary focus of questions in the 2022 assessments. The information for each Religion is presented in specification order and not in question order.

## Christianity

**Beliefs and teachings**

- The nature of God:
  - the oneness of God and the Trinity: Father, Son and Holy Spirit
- Different Christian beliefs about creation including the role of Word and Spirit (John 1:1-3 and Genesis 1:1-3)
- Different Christian beliefs about the afterlife and their importance, including: resurrection and life after death; judgement, heaven and hell
- Beliefs and teachings about:
  - the crucifixion, resurrection and ascension
  - the means of salvation, including law, grace and Spirit
  - the role of Christ in salvation including the idea of atonement

**Practices**

- The role and meaning of the sacraments:
  - the sacrament of baptism and its significance for Christians; infant and believers' baptism; different beliefs about infant baptism
- The role and importance of celebrations including:
  - the celebrations of Christmas and Easter, including their importance for Christians in Great Britain today
- The place of mission, evangelism and Church growth
- The importance of the worldwide Church including:
  - working for reconciliation
  - how Christian churches respond to persecution

## Islam

**Beliefs and teachings**

- The nature of God: omnipotence, beneficence, mercy, fairness and justice/Adalat in Shi'a Islam, including different ideas about God's relationship with the world: immanence and transcendence
- Angels, their nature and role, including Jibril and Mika'il
- Risalah (Prophethood) including the role and importance of Adam, Ibrahim and Muhammad
- The holy books:
  - Qur'an: revelation and authority
  - the Torah, the Psalms, the Gospels, the Scrolls of Abraham and their authority
- The imamate in Shi'a Islam: its role and significance

**Practices**

- Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer: Jummah; key differences in the practice of salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer

- Zakah: the role and significance of giving alms including origins, how and why it is given, benefits of receipt, Khums in Shi'a Islam
- Hajj: the role and significance of pilgrimage to Makkah including origins, how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance
- Jihad: different understandings of jihad: the meaning and significance of greater and lesser jihad; origins, influence and conditions for the declaration of lesser jihad
- Festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meanings of Id-ul-Adha, Id-ul-Fitr, Ashura

**AQA have advised that students may need to draw on other specification content within their responses to be able to access the full range of marks.**

**Paper 2 - Thematic studies**

***There is no advance information for Paper 2. The examination could include questions from any of the following content relating to the four themes we have studied.***

## Theme A: Relationships and families

**Sex, marriage and divorce**

- Human sexuality including: heterosexual and homosexual relationships
- Sexual relationships before and outside of marriage
- Contraception and family planning
- The nature of purpose of marriage
- Same-sex marriage and cohabitation
- Divorce, including reasons for divorce, and remarrying
- Ethical arguments related to divorce, including those based on the sanctity of marriage vows and compassion

**Families and gender equality**

- The nature of families, including:
  - the role of parents and children
  - extended families and the nuclear family
- The purpose of families, including:
  - procreation
  - stability and the protection of children
  - educating children in a faith
- Contemporary family issues, including:
  - same-sex parents
  - polygamy
- The roles of men and women
- Gender equality
- Gender prejudice and discrimination, including examples

## Theme B: Religion and life

**The origins and value of the universe**

- The origins of the universe, including:
  - religious teachings about the origins of the universe, and different interpretations of these
  - the relationship between scientific views, such as the Big Bang theory, and religious views
- The value of the world and the duty of human beings to protect it, including religious teaching about stewardship, dominion, responsibility, awe and wonder
- The use and abuse of the environment, including the use of natural resources, pollution
- The use and abuse of animals, including:

- animal experimentation
- the use of animals for food

**The origins and value of human life**

- The origins of life, including:
  - religious teachings about the origins of human life, and different interpretations of these
  - the relationship between scientific views, such as evolution, and religious views
- The concepts of sanctity of life and the quality of life
- Abortion, including situations when the mother's life is at risk
- Ethical arguments related to abortion, including those based on the sanctity of life and quality of life
- Euthanasia
- Beliefs about death and an afterlife, and their impact on beliefs about the value of human life

## Theme D: Religion, peace and conflict

**Religion, violence, terrorism and war**

- The meaning and significance of:
  - peace
  - justice
  - forgiveness
  - reconciliation
- Violence, including violent protest
- Terrorism
- Reasons for war, including greed, self-defence and retaliation
- The just war theory, including the criteria for a just war
- Holy war
- Pacifism

**Religion and belief in 21st century conflict**

- Religion and belief as a cause of war and violence in the contemporary world
- Nuclear weapons, including nuclear deterrence
- The use of weapons of mass destruction
- Religion and peace-making in the contemporary world including the work of individuals influenced by religious teaching
- Religious responses to victims of war including the work of one present day religious organisation

## Theme E: Religion, crime and punishment

**Religion, crime and the causes of crime**

- Good and evil intentions and actions, including whether it can ever be good to cause suffering
- Reasons for crime, including:
  - poverty and upbringing
  - mental illness and addiction
  - greed and hate
  - opposition to an unjust law
- Views about people who break the law for these reasons
- Views about different types of crime, including hate crimes, theft and murder

**Religion and punishment**

- The aims of punishment, including:
  - retribution
  - deterrence
  - reformation
- The treatment of criminals, including:
  - prison

- corporal punishment
- community service

- Forgiveness
- The death penalty
- Ethical arguments related to the death penalty, including those based on the principle of utility and sanctity of life

# BTEC AND VOCATIONAL SUBJECTS

## iMEDIA

**Teacher Assessed Grades**
Your child has been awarded two grades for their OCR Cambridge Nationals Creative iMedia through teacher assessed grades

- R081 – Pre-Production Skills
- R082 – Creating Digital Graphics

These units are now completed and the grade secure. These grades will be used alongside the grades for the remaining pieces of coursework.

**Dropped unit**
In addition, the exam board has allowed one unit of work to be dropped due to the impact of Covid. The unit we have dropped is R085 – Creating a multipage website, students will have opportunity to gain experience of the knowledge and skills taught in this unit but it will not be assessed.

**Coursework**
R087 Creating a multimedia product, is the final piece of coursework currently being completed by students that will be submitted before Easter.

## ENTERPRISE Btec

## Business Studies

**Teacher Assessed Grades**
Your child received a teacher assessed grade for Component 3 Promotion and Finance and subsequently will not sit an exam in the upcoming mocks or in the summer.

**Controlled Assessment**
<u>Component 1 – Exploring Enterprises</u>
This unit is currently being completed by your child. BTEC made adaptations to the assignment brief as a consequence of COVID. The adaptations allowed students to investigate one local business rather than two.

<u>Component 2 – Pitchcing and Planning a business</u>
This unit was taught and assessed last year. BTEC made adaptations to the assignment brief as a consequence of COVID. The adaptations removed the assessment of Aim C which was to review the pitch and identify areas for improvement.

# PERFORMING ARTS Btec
# ACTING & MUSICAL THEATRE

**Controlled Assessment**

Component 1 – Exploring the Performing Arts

This unit has been completed. BTEC made adaptations to the assignment brief as a consequence of COVID. The adaptations allowed students to investigate and present for one piece of repertoire rather than three.

Component 2 – Developing Skills and Techniques in the Performing Arts

This unit has been completed. BTEC made adaptations to the assignment brief as a consequence of COVID. The adaptations removed the assessment of Aim A and C. Pupils were marked on Aim B - Apply skills and techniques in rehearsal and performance.

Component 3 - **40% external exam**

This unit began in January and will be completed in March. It consists of 4 activities - Ideas Log, Skills Log, Workshop Performance and Evaluation log. The theme of the exam paper is "Better Together".

# PERFORMING ARTS Btec
# DANCE

Component 1 – Exploring the Performing Arts: Coursework

This unit has been completed in Year 10. The exam board, Pearson made adaptations to the assignment brief as a consequence of COVID. The adaptations allowed students to investigate and create a portfolio for one professional piece/ style rather than 3. This was based on 'Rooster' by Christopher Bruce (Contemporary Dance).

Component 2 – Developing Skills and Techniques in the Performing Arts: Coursework

This unit has been completed in Year 10. BTEC made adaptations to the assignment brief as a consequence of COVID. The adaptations removed the assessment of Aim A and C which was the written element to this component. Pupils instead were marked on Aim B - Apply skills and techniques in rehearsal and performance which was practical only. This was a performance of the dance piece that they had been working on which was an extract from ' A Linha Curva' by Itzik Gallili

Component 3 - **40% external exam**

This unit began in January and will be completed in April. It consists of 4 activities - Ideas Log, Skills Log, Workshop Performance and Evaluation log. The theme of the exam paper is "Better Together". The exam timeline was sent out to parents/ guardians in January 2022 and all students have a detailed work booklet to support them at every stage of the examination.

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