

# Year 10

**End of Year  
Assessment  
Countdown  
Booklet  
2026**

Head of Year  
**Mr Billinge**

Respect | Enthusiasm | Ambition | Determination | Resilience



**Irlam and Cadishead Academy**

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# A Message from Mr Smith

Dear Student,

This booklet has been put together to help you prepare fully for your Year 10 End of Year Assessments, which are taking place from 4th June to 15th July.

As you know, at ICA we have the highest academic expectations of all students. These should be reflected daily through strong learning habits in every lesson – working hard with determination to succeed. At this point, you are halfway through your GCSE courses, and these assessments provide an important opportunity to demonstrate how much you have learnt so far. Your teachers will use your results to assess whether you are working towards your full potential and to identify areas where you may need further support.

This is also a really important time as you begin stepping up into the Year 11 student ethos. The habits and attitude you show now will set you up for success next year.

## **EPS (Period 6):**

EPS sessions will run from 8th June to 26th June. These are compulsory and will appear on your Arbor timetable. You are expected to attend all sessions unless you have a doctor's note. Some sessions will take place in the morning, starting at 7:50am, and you must arrive on time.

Revision Expectations:

It is important to get into strong revision habits now:

- Create flashcards
- Make clear and organised revision notes
- Practice exam-style questions regularly

Use the revision timetable in this booklet to help plan your time effectively. If you are unsure about any topics, speak to your teacher, they are there to support you.

Each subject will provide you with a revision booklet containing key knowledge and tasks that must be completed before your assessments. You can also access additional revision resources on Padlet via the school website (student section).

When revising, try to use a variety of strategies such as:

- Look, Cover, Write, Check
- Mind maps
- Quizzing with friends
- Online platforms such as Seneca or Sparx

You can also explore further revision tips on BBC Bitesize.

Remember, the effort you put in now will be reflected in your achievements. Working hard during this period will put you in a strong position for Year 11 and your GCSEs. We are all here to support you, so if you need any help or guidance, speak to your teacher, form tutor, or Head of Year.

You have worked really hard this year – keep pushing, stay focused, and believe in yourself.

Good luck! 👍

Mr Smith

**Assistant Principal**

# Top Revision Tips

- **HABIT** - Get into the habit of working in a regular routine.
- **PLAN** - Plan your weekly revision, homework and leisure time on the timetables provided. Make sure you can realistically keep to the schedule that you have planned.
- **PLACE** - Make sure that you work in the best possible environment:
  - The room should be well lit to reduce eye strain
  - Quiet with few distractions – no TV or Phones. Sit on a chair at a table or desk rather than lounging on your bed or so close to a window that you might get distracted.
  - Identify a set time and place for studying – most people study best in the mornings and evenings, but you need to work out the best time for yourself.
- **ORGANISATION**
  - Be fully prepared. Books, paper, pens, drinks etc. should all be organised before you start.
  - Break each subject down into manageable chunks so that you can read over a topic once or twice in about 20 to 30 minutes. If you come across topics that you really don't understand, make a note of them and ask the subject teacher for help.
- **VARIETY** - Get some variety into your revision. Vary your use of revision materials: notes, revision cards, books, websites, podcasts and videos. Keep a record of what you have done in this booklet to make sure you cover all topics and don't avoid the more difficult ones.
  - Begin your revision by re-reading your notes from the previous session. This will improve your recall. At the end of the week revise the whole week's work. Revision should involve checking your notes and writing down the main points may help you learn them more than you would by just reading them.
  - As the exam draws nearer have 'key words' which trigger your memory.
  - Saying things out loud can help you to learn and can improve your use of appropriate vocabulary. It is important to test yourself after each piece of work. Identify some questions you might think will be on the paper and write an outline answer for each one.
- **RELAX** - Try to stop revising at least an hour before you go to bed. Relax to help you sleep. Working late will make you feel tired the next day. Only watch TV programmes that you enjoy rather than to fill in time. Get up early to make good use of your time.
- **HONESTY** - Always be honest with yourself. Teachers can help you but they cannot do the work for you. Ask for help when you need it.
- **PERSEVERE** - Don't give up: it really is not a long time and it will be worth it! Good luck!

# English

## English Language

### Exam focus: Creative Reading and Writing

#### Section A:

Question 1 - Multiple choice – select 4 correct/false answers – 4 marks

Question 2 – Language analysis – 8 marks

Question 3 – Analysis of structure – 8 marks

Question 4 – Evaluation of a statement – 20 marks

#### Section B:

Writing a description or a narrative – 40 marks (24 marks for content & organisation – 16 marks for Spelling, Punctuation, Grammar)

Total marks 80 marks

## English Literature

Macbeth – 30 marks (+4 for Spelling, Punctuation and Grammar)

A Christmas Carol – 30 marks

Both of these examination questions require an understanding of authorial intent, context and the ability to analyse language, structure and form.

Total marks 64 marks

## Revision:

You will be given a revision guide for the two texts.

You could also use the following sites:

### BBC Bitesize

- <https://www.bbc.co.uk/bitesize>
- Offers summaries, character analysis, themes, key quotes, and quizzes tailored to the AQA exam board.

### Seneca Learning

- <https://www.senecalearning.com>
- Interactive and engaging revision with free courses specifically for Macbeth and A Christmas Carol (requires free account).

### SparkNotes

- <https://www.sparknotes.com>

### Revision World

- <https://revisionworld.com>
- Provides free GCSE English Literature resources, including notes and past paper-style questions.

# Maths 10 Foundation

Year 10 Foundation 10X3/10X4/10Y1/10Y2

Maths Paper 1 (Non-calculator) – 1hr 30mins - 80 marks

Maths Paper 2 (Calculator) - 1hr 30mins - 80 marks

Topic		Sparx Topic
Solving equations and rearranging formulae	Solve linear equations up to and including those with the unknown on both sides of the equation. Changing the subjects of formulae.	U755, U325, U870, U505, U556, U221, U373
Linear Graphs	Recognise, plot and interpret straight line graphs. Find approximate solutions from graphs including real life graphs. Identify and interpret gradients and y intercepts including from the form $y=mx+c$	U789, U741, U933, U889, U638, U669, U315, U377, U477, U848, U862
Linear Simultaneous Equations	Solve two simultaneous equations algebraically and graphically. Derive two simultaneous equations from a situation in context.	U760, U757, U836, U137
Volume 2	Find and problem solve with volume of cubes, cuboids, prisms, cylinders, spheres, pyramids, cone and composite solids.	U786, U174, U915, U484, U116, U617, U426, U350, U543
Compound Measures	Interpret distance-time graphs. Change between standard units of measure and compound units of measure.	U914, U462, U896, U902, U388, U248, U468, U151, U256, U403, U914, U462, U966, U910, U527
Quadratics - Graphical	Recognise, sketch and interpret graphs of quadratic functions. Find approximate solutions from graphs.	U989, U667, U601, U178, U963
Quadratics - Algebraic	Factorise quadratic expressions and solve quadratic equations by factorising where the coefficient of $x^2$ is 1.	U228
Further Graphs	Recognise and be able to sketch cubic, reciprocal, inverse, and direct proportion graphs.	U980, U593, U238

# Maths 10 Foundation

Topic		Sparx Topic
Probability 2	<p>Work with experimental and theoretical probability, knowing that probability sums to 1. Use probability tree diagrams for independent and dependent events.</p> <p>Find probabilities from Venn diagrams.</p>	U803, U408, U510, U280, U166, U683, U580, U476, U748, U104, U558, U729, U296, U369
Statistics 2	<p>Understand and draw types of charts, including bar charts, pictograms, stem and leaf diagrams and pie charts.</p> <p>Calculate and problem solve with averages and range.</p> <p>Plot, read and use scatter graphs.</p>	U981, U363, U557, U508, U172, U653, U506, U200, U909, U291, U260, U456, U526, U569, U854, U877, U717, U322, U162, U590, U193, U199, U277, U128
Ratio 2	<p>Convert between ratio, fractions, and percentages. Write, simplify, and combine ratios. Share amounts given a ratio. Problem solve with ratio.</p>	U687, U577, U753, U176
Growth & Decay	<p>Set up, solve and interpret the answer of growth and decay problems including compound interest. Compare simple and compound interest.</p>	U332, U988
Pythagoras Review	<p>Calculate a missing side length from a right angled triangle.</p> <p>Use three side lengths of a triangle to determine if it's right angled.</p>	U851, U385
Bearings & Scale Drawings	<p>Measure and draw bearings. Draw and interpret scale diagrams.</p> <p>Calculate bearings using angles rules.</p>	U257, U525, U107

# Maths 10 Foundation

1) Rearrange the below to make  $r$  the subject:

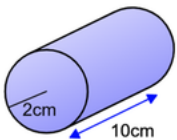
$$3r - 6f = d$$

2) Steve leaves his home at 07:30 to drive to work. He drives a distance of 50 miles. He drives at a speed of 40mph. What time does he arrive at work?

3) Solve:

$$\frac{2x + 4}{5} = 4$$

4) Find the volume of the below:



5) Factorise:

$$x^2 + 5x + 4$$

6) Identify the gradient and y-intercept of the lines with equation:

$$y = 3x + 4$$

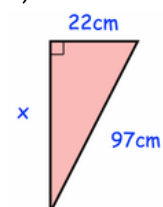
$$2y = 4x - 10$$

7) Holly and Fred share some sweets in the ratio 4 : 9

If Holly has 30 more sweets than Fred. How many sweets does Fred have?

8) The bearing of port B from port A is  $126^\circ$ . Work out the bearing of port A from port B.

9) Find  $x$ :



# Maths 10 Higher

## Year 10 Higher - 10X1/10X2

Maths Paper 1 (Non-calculator) – 1hr 30mins - 80 marks

Maths Paper 2 (Calculator) - 1hr 30mins - 80 marks

Topic		Sparx Topic
Rearranging formulae	Changing the subjects of formulae including complex formulae involving fractions, roots and powers and where the subject appears on <b>both</b> sides of the formula	U556, U221, U373
Linear Graphs	Recognise, plot, and interpret straight line graphs. Find approximate solutions from graphs including real life graphs. Identify and interpret gradients and y intercepts including from the form $y=mx+c$ .	U789, U741, U933, U889, U638, U238, U669, U315, U377, U477, U848, U862, U898
Linear Simultaneous Equations	Solve two simultaneous equations algebraically and graphically. Derive two simultaneous equations from a situation in context.	U760, U757, U836, U137
Volume 2	Find and problem solve with volume of cubes, cuboids, prisms, cylinders, spheres, pyramids, cone and composite solids.	U786, U174, U915, U484, U116, U617, U426, U350, U543
Compound Measures	Interpret distance-time graphs. Change between standard units of measure and compound units of measure.	U914, U462, U896, U902, U388, U248, U468, U151, U256, U403, U910, U527
Quadratics - Graphical	Recognise, sketch and interpret graphs of quadratic functions, including where rearranging is needed. Find approximate solutions from graphs.	U989, U667, U601, U178, U963
Quadratics - Algebraic	Factorise quadratic expressions and solve quadratic equations by factorising where the coefficient of $x^2$ is $\geq 1$ . Factorise by completing the square or using the quadratic formula. Deduce turning points. Use factorisation to simplify algebraic fractions. Multiply, divide, add and subtract algebraic fractions.	U228
Further Graphs	Recognise and be able to sketch cubic, reciprocal, inverse, and direct proportion graphs. Expand triple brackets.	U980, U593, U238

# Maths 10 Higher

Topic		Sparx Topic
Probability 2	Work with experimental and theoretical probability, knowing that probability sums to 1. Use probability tree diagrams for independent and dependent events, including conditional probability and tree diagrams with algebraic expressions. Find probabilities from Venn diagrams.	U803, U408, U510, U280, U166, U683, U580, U476, U748, U104, U558, U729, U296, U369
Statistics 2	Understand and draw types of charts, including bar charts, pictograms, stem and leaf diagrams and pie charts. Calculate and problem solve with averages and range. Plot, read and use scatter graphs.	U981, U363, U557, U508, U172, U653, U506, U200, U909, U291, U260, U456, U526, U569, U854, U877, U717, U322, U162, U590, U193, U199, U277, U128
Cumulative Frequency and Box Plots	Calculate cumulative frequency. Draw and interpret cumulative frequency graphs. Draw, interpret and compare box plots. Find the range, quartiles and inter-quartile range.	U642, U182, U837, U879, U507
Growth & Decay	Set up, solve and interpret the answer of growth and decay problems including compound interest. Compare simple and compound interest.	U332, U988
Ratio 2	Convert between ratio, fractions, and percentages. Write, simplify, and combine ratios. Share amounts given a ratio. Problem solve with ratio.	U687, U577, U176, U753, U921, U676, U865
Ratio 3	Solve complex multi-step problems involving algebraic terms.	U595
Similar Shapes	Identify and use scale factors to find missing lengths in 2D and 3D shapes. Understand the effect of enlargement on angles, perimeter, area and volume of shapes and solids.	U551, U578, U630, U110, U350, U334
Algebraic Proportion	Interpret equations and graphs that describe direct and inverse proportion. Construct equations for direct and inverse proportions including with word problems.	U640, U364, U238, U407, U138, U721, U357
Surds	Simplify and manipulate surds. Simplify surd expressions with factors that are square. Expand and simplify brackets with surds. Rationalise the denominator.	U633, U872, U338, U499, U707, U281

# Maths 10 Higher

## Topic

## Sparx Topic

Right angled  
Trigonometry

Know the exact trig values. Find unknown lengths and angles using the trigonometric ratios, sine, cosine and tangent.

U605, U283, U545, U627

1) Show that  $\sqrt{200}$   
can be written in the form  $a\sqrt{b}$

2) The ratio of A : B = 4 : 5  
The ratio of A : C = 6 : 1  
Find the ratio of B : C

3) Factorise fully:

$$3x^2 + 8x + 5$$

4) Andy invests £3000 into an account that offers compound interest at 1.2% per annum. Find the value of his investment after 6 years.

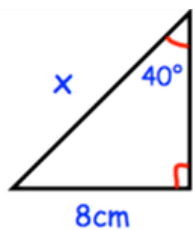
5) The table below shows the probability of taken counters from a bag.

Colour	red	blue	green	yellow
Probability	0.4			0.25

The ratio of blue to green is 3 : 4.  
Complete the table.

6) Hannah wants to estimate the number of eels in a lake. She catches and rings 50 eels. She returns the 50 eels to the lake. The next day Hannah catches 400 eels. Of these 400 eels, 10 are ringed. Work out an estimate for the total number of eels in the lake.

7) Find the value of x



8) C is inversely proportional to  $D^2$ .  
When C = 50, D = 5  
Find the value of D when C = 200

9) Write \_\_\_\_\_ in the form

$$x^2 + 6x - 11$$

$$(x + a)^2 + b$$

# Science Trilogy

## Combined Science Trilogy

Exam format: 3 x 1hr 15mins Exams (Biology, Chemistry Physics) 70 Marks each

### Biology Paper 1

#### B1- Cells

- Microscopy
- Animal and Plant Cells
- Eukaryotic and Prokaryotic Cells
- Specialisation in Animal and Plant Cells
- Diffusion, Osmosis and Active Transport
- Osmosis in Plants
- Exchanging Materials (surface area to volume ratio, adaptations of exchange surfaces)
- Cell Division (Mitosis)
- Growth and Differentiation
- Stem Cells
- Stem Cell Dilemmas

**RP Microscopy-** Use a light microscope to observe, draw and label a selection of plant and animal cells. A scale magnification must be included

**RP Osmosis -** Investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue

#### B2- Organisation

- Tissues and Organs
- The Human Digestive System
- Catalysts and Enzymes
- Factors affecting Enzymes
- The Blood & The Blood Vessels
- The Heart & Helping the Heart
- Breathing and Gas Exchange
- Tissues and Organs in Plants
- Transport Systems in Plants
- Evaporation and Transpiration
- Factors affecting Transpiration
- Non-communicable diseases
- Cancer -Smoking, Diet, Exercise and Disease
- Alcohol and other Carcinogens

**RP Food Tests -** Use qualitative reagents to test for a range of carbohydrates, lipids and proteins. To include: Benedict's test for sugars; iodine test for starch; Biuret reagent for protein

**RP Enzymes -** Investigate the effect of pH on the rate of reaction of amylase enzyme. Students should use a continuous sampling technique to determine the time taken to completely digest a starch solution at a range of pH values. Iodine reagent is to be used to test for starch every 30 seconds. Temperature must be controlled by use of a water bath or electric heater

#### B3- Infection and Response

- Health and Disease
- Pathogens and Disease
- Preventing Infections
- Viral Diseases & Bacterial Diseases
- Disease caused by Fungi and Protists
- Human Defence Responses
- Vaccination
- Antibiotics and Painkillers
- Discovering Drugs & Developing Drugs

#### B4 - Bioenergetics

- Photosynthesis and The Rate of Photosynthesis
- How Plants use Glucose
- Making the most of photosynthesis (H only)
- Aerobic Respiration & The Response to Exercise
- Anaerobic Respiration
- Metabolism and the Liver (Liver H Only)
- **RP Photosynthesis -** Investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed

# Science Trilogy

## Physics Paper 1

### P1- Energy

- Energy calculations (e.g. Kinetic energy and gravitational potential energy).
- The law of conservation of energy.
- Energy stores and transfers
- Efficiency
- Improving efficiency(H)
  - Conduction
  - Specific heat capacity
  - Heating and insulating buildings
  - Energy demands
  - Renewable and non-renewable energy resources
  - Advantages and disadvantages of the different energy resources
  - The national grid

**RP: Specific heat capacity-** Investigate and determine the specific heat capacity of a metal block of known mass by measuring the energy transferred to the block and its temperature rise, using the equation for specific heat capacity.

### P2- Electricity

- Circuit symbols and functions
- Drawing circuit diagrams
- Calculating charge ( $Q=It$ )
- Ohm's law ( $V=IR$ )
- Calculating power
- Rules about series and parallel circuits
- Electricity uses in the home/mains electricity and the plug, AC/DC
- Fuses and circuit breakers
- Calculating energy transferred in an appliance

**RP: Determining resistance of a length of wire. Set up circuits and investigate the resistance of a wire, and of resistors in series and parallel.**

**RP: Investigating Resistance Characteristics. Correctly assemble a circuit and investigate the potential difference -current characteristics of circuit components.**

### P3- Particle Model of Matter

- Calculating density of materials
- Changes of state
- Internal energy and temperature changes
- Changes of state and specific latent heat including use of graphs
- Particle motion of gases and gas pressure
- **RP: Calculating Densities-Measure the mass and volume of objects and liquids and calculate their densities using the density equation**

### P4- Atomic Structure

- The structure of the atom, subatomic particles characteristics and development of the atomic model
- Mass number, atomic number and isotopes
- Radioactive decay and nuclear radiation including types of radiation
- Investigation and identification of each type of radiation
- Nuclear equations
- Half-lives and the random nature of radioactive decay
- Radioactive contamination

# Science Trilogy

## Chemistry Paper 1

### C1- Atomic structure & The Periodic Table:

- Atoms
- Chemical equations
- Structure of the atom
- Electronic structure
- Ions and isotopes
- History of the atom
- Separation techniques
- Development of the periodic table
- Group 1 alkali metals
- Group 7 halogens and trends.
- The Noble gases

### C2- Bonding

- States of matter
- Atoms into ions
- Ionic bonding
- Covalent bonding
- Simple molecules
- Giant covalent structures
- Fullerenes and graphene
- Bonding in metals.
- Alloys

### C3- Quantitative Chemistry

- Relative atomic mass
- Relative formula mass
- Percentage mass
- Mole calculations (H)
- Reacting masses(H)
- Limiting Reactants (H)
- Calculating concentrations.

### C4- Chemical changes

- The reactivity series
- Displacement reactions
- Extracting metals
- Salts from metals
- Salts from insoluble bases
- Neutralisation and the pH scale.
- -Strong and weak acids (H)
- Changes at the electrode
- Extraction of aluminium
- Electrolysis of aqueous solutions.

**RP 2- Investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis.**

**RP 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.**

### C5- Energy Changes

- Identifying endothermic and exothermic reactions
- Calorimetry investigation
- Drawing reaction profile diagrams for exothermic and endothermic reactions
- Bond energy calculations(H)

**RP 3 - Investigate the variables that affect temperature changes in reacting solutions such as, e.g. acid plus metals, acid plus carbonates, neutralisations, displacement of metals. You should be able to use simple calorimetry equipment to measure a temperature change and evaluate the procedure.**

# Science Triple

## Triple Science

**Exam format: 3 x 1hr 45mins Exams (Biology, Chemistry Physics) 100 Marks each**

## Biology Paper 1

### B1- Cells

- Microscopy
- Animal and Plant Cells
- Eukaryotic and Prokaryotic Cells
- Specialisation in Animal and Plant Cells
- Diffusion
- Osmosis
- Osmosis in Plants
- Active Transport
- Exchanging Materials (surface area to volume ratio, adaptations of exchange surfaces)
- Cell Division (Mitosis)
- Growth and Differentiation
- Stem Cells
- Stem Cell Dilemmas

**RP Microscopy- Use a light microscope to observe, draw and label a selection of plant and animal cells. A scale magnification must be included**

**RP Osmosis - Investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue**

### B2- Organisation

- Tissues and Organs
- The Human Digestive System
- The Chemistry of Food
- Catalysts and Enzymes
- Factors affecting Enzymes
- How the Digestive System Works
- Making Digestion Efficient
- The Blood & The Blood Vessels
- The Heart & Helping the Heart
- Breathing and Gas Exchange
- Tissues and Organs in Plants
- Transport Systems in Plants
- Evaporation and Transpiration
- Factors affecting Transpiration
- Non-communicable diseases
- Cancer
- Smoking and the Risk of Disease
- Diet, Exercise and Disease
- Alcohol and other Carcinogens

**RP Food Tests - Use qualitative reagents to test for a range of carbohydrates, lipids and proteins. To include: Benedict's test for sugars; iodine test for starch; Biuret reagent for protein**

**RP Enzymes - Investigate the effect of pH on the rate of reaction of amylase enzyme. Students should use a continuous sampling technique to determine the time taken to completely digest a starch solution at a range of pH values. Iodine reagent is to be used to test for starch every 30 seconds. Temperature must be controlled by use of a water bath or electric heater**

# Science Triple

## Biology Paper 1

### **B3- Infection and Response**

- Health and Disease
- Pathogens and Disease
- *Growing Bacteria in a Lab & Preventing Bacterial Growth*
- Preventing Infections
- Viral Diseases & Bacterial Diseases
- Disease caused by Fungi and Protists

#### Human Defence Responses

- *More about Plant Diseases*

#### Plant Defence Responses

- Vaccination
- Antibiotics and Painkillers
- Discovering Drugs
- Developing Drugs
- *Making Monoclonal Antibodies*
- *Uses of Monoclonal Antibodies*

**RP Microbiology (Biology Only) - Investigate the effect of antiseptics or antibiotics on bacterial growth using agar plates and measuring zones of inhibition**

### **B4 – Bioenergetics**

- Photosynthesis
- The Rate of Photosynthesis
- How Plants use Glucose
- Making the most of photosynthesis (H only)
- Aerobic Respiration
- The Response to Exercise
- Anaerobic Respiration
- Metabolism and the Liver (Liver H Only)

**RP Photosynthesis - Investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed**

# Science Triple

## Physics Paper 1

### P1- Energy

- Energy Stores & Energy Transfer
  - Conservation of Energy, useful and waste energy, energy dissipation
  - Efficiency and efficiency calculations
  - Improving efficiency
  - Gravitational Potential Energy and GPE calculations
  - Kinetic Energy and Kinetic Energy calculations
  - Elastic Potential Energy and Elastic Potential Energy calculations
  - Weight and mass
  - Work done and work done calculations
  - Power and power calculations (power equation 1)
  - Conduction and Conductivity
  - Insulating the home
  - Specific Heat Capacity and Specific Heat Capacity calculations
  - Advantages and disadvantages of each energy resource
  - The uses of energy resources to generate electricity, for transport and for heating
  - Changing patterns and trends in the use of energy resources
  - Meeting base load demand and peak demand
- Start up times and pumped storage systems

**RP: Specific heat capacity-** Investigate and determine the specific heat capacity of a metal block of known mass by measuring the energy transferred to the block and its temperature rise, using the equation for specific heat capacity.

**RP: The Effectiveness of Different Materials as Thermal Insulators**

### P2- Electricity

- Atomic Structure
- Charging insulators
- Electric fields and the forces between 2 charged objects
- Electrostatic discharge
- The uses and dangers of electrostatically charged objects
- Circuit symbols
- Current and calculating current
- Potential difference and calculating potential difference
- Resistance and calculating resistance
- Components which change resistance in a circuit
- Current – potential difference graphs
- Alternating and direct current
- Calculating Period and Frequency
- Electrical cables and the role of the earth wire
- Plugs and fuses
- Circuit breakers and residual current circuit breakers
- Power and calculating power (equations 2 and 3); choosing the correct fuse
- Energy transferred by appliances and calculating energy transferred by appliances
- National Grid

**RP: Determining resistance of a length of wire. Set up circuits and investigate the resistance of a wire, and of resistors in series and parallel.**

**RP: Investigating Resistance Characteristics. Correctly assemble a circuit and investigate the potential difference-current characteristics of circuit components. Investigating the current – potential difference graphs of different components**

**RP: Patterns of resistance in series and parallel circuits**

# Science Triple

## Physics Paper 1

### P3- Particle Model of Matter

- Kinetic Theory and Using Kinetic Theory to explain the properties of the states of matter
- Density and calculating density
- Changes of state
- Internal energy
- Internal energy and temperature rise (linked to specific heat capacity)
- Internal energy and changes of state (linked to specific latent heat)
- Specific latent heat and calculating specific latent heat
- Interpreting heating and cooling graphs
- Gas Pressure and Temperature, Gas Pressure and Volume; Boyle's Law and Boyle's Law Calculations

**RP: Calculating Densities-Measure the mass and volume of objects and liquids and calculate their densities using the density equation**

### P4- Atomic Structure

- Atomic structure, Ion formation and isotopes
- Development of the theory of the nuclear atomic model
- Radioactive decay
- Measuring radiation & Background radiation
- Types of radiation, their formation and their nature
- Properties of different types of radiation
- Decay equations
- Half-life; interpreting half-life graphs; half-life calculations
- Contamination and irradiation; safety precautions
- Uses of radiation, including medical uses
- Fission & Fusion

## Chemistry Paper 1

### C1- Atomic structure & The Periodic Table:

- Atoms
- Chemical equations
- Structure of the atom
- Electronic structure
- Ions and isotopes
- History of the atom
- Separation techniques
- Paper chromatography
- Development of the periodic table
- Group 1 alkali metals
- Group 7 halogens and trends.
- The Noble gases
- Explaining trends in reactivity.
- Transition Metals

### C2- Bonding

- States of matter
- Atoms into ions
- Ionic bonding
- Covalent bonding
- Simple molecules
- Giant covalent structures
- Fullerenes and graphene
- Bonding in metals.
- Alloys
- Nanoparticles and their applications.

# Science Triple

## Chemistry Paper 1

### C3- Quantitative Chemistry

- Relative atomic mass
- Relative formula mass
- -Mole calculations (H)
- Reacting masses (H)
- Limiting Reactants (H)
- Calculating concentrations.
- Yield of a chemical reaction
- Atom economy
- Titrations and titration calculations
- Calculating volume of gases

### C4- Chemical changes

- The reactivity series
  - Displacement reactions
  - Extracting metals
  - Salts from metals
  - Salts from insoluble bases
  - Neutralisation and the pH scale.
  - -Strong and weak acids (H)
  - Changes at the electrode
  - Extraction of aluminium
  - Electrolysis of aqueous solutions.
- **RP 2- Investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis.**

**RP 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.**

### C5- Energy Changes

- Identifying endothermic and exothermic reactions
- Calorimetry investigation
- Drawing reaction profile diagrams for exothermic and endothermic reactions
- Bond energy calculations(H)
- Chemical cells and batteries
- Fuel Cells

**RP 3 - Investigate the variables that affect temperature changes in reacting solutions such as, e.g. acid plus metals, acid plus carbonates, neutralisations, displacement of metals. You should be able to use simple calorimetry equipment to measure a temperature change and evaluate the procedure.**

# Geography

**1 x 90 minute exam - 88 marks**

## What's on the paper?

Topic 1: Hazards

Topic 2: Economic World

Topic 3: Coasts

## What are some example questions?

- There will be maths style questions where you need to complete / use figures.
- 4 mark question - KU, KU
- 6 mark question - KUU, KUU
- 9 marks questions - KUU, KUU + Conclusion
- Some 6- and 9- mark questions must start with an 'A' you will need to decide if it is appropriate

## Keywords:

- Mitigation
- Adaptation
- Primary and Secondary Effects
- Response
- Development Gap
- LIC/NEE you have studied
- TNC you have studied
- Post-industrial economy
- Hard and Soft Engineering
- Erional landforms / features

## REVISION

- Complete the revision topics and practice questions set on Seneca
- Use your knowledge organiser for key terms and processes
- Make revision mind maps and notes to supplement your learning using <https://www.bbc.co.uk/bitesize/topics/zvwtsbk>
- Complete the revision booklet work

# History

Paper One- Medicine (1 hour 20 minutes)

Paper Three- Germany 1918-39 (1 hour 30 minutes)

Below is a checklist for the key content in the exam. You will also be given a revision booklet before the mock exams to help you revise as well as completing revision lessons in class.

## Paper One Checklist

Medicine	Tick when completed	Germany	Tick when completed
Ideas about the cause of disease in Medieval England		Challenges to the Weimar Republic	
Prevention and treatment in Medieval England		The Golden Years 1924-29	
Ideas about the cause of disease in the Renaissance		Changes in society 1924-29	
Prevention and treatment in the Renaissance		Early development of the Nazis	
Ideas about the cause of disease in 18 <sup>th</sup> and 19 <sup>th</sup> Century Britain		The Munich Putsch	
Prevention and treatment in 18 <sup>th</sup> and 19 <sup>th</sup> Century Britain		How Hitler became Chancellor 1932-33	
Ideas about the cause of disease in modern Britain		Creation of a dictatorship 1933-34	
Prevention and treatment in modern Britain		Nazi police state and propaganda	
Historic Environment: the Western Front 1914-18		Opposition to the Nazis	
		Life in Nazi Germany 1933-39	

# History

## Questions

Paper One- Medicine (52 marks)

Q1a) Describe one feature of... (2 marks)

Q1b) Describe one feature of... (2 marks)

Q2a) How useful are Sources A and B for an enquiry into... (8 marks)

Q2b) How could you follow up Source A/B to find out more about.... (4 marks)

Q3) Explain one way in which ..... was similar/different to..... (4 marks)

Q4) Explain why.... (12 marks)

Q5) 'Statement'. How far do you agree? (20 marks)

## Examples of Medicine questions

Q1a) Describe one feature of the effects of poison gas on soldiers. (2 marks)

Q4) Explain one way in which people's reactions to the plague in Britain were similar in the 14<sup>th</sup> and 17<sup>th</sup> centuries.

Q5) Explain why there was rapid change in the treatment of illness in the 20<sup>th</sup> Century. (12 marks)

Paper Three- Germany (52 marks)

Q1) Give two things you can infer from Source A about... (4 marks)

Q2) Explain why... (12 marks)

Q3a) How useful are Sources A and B for an enquiry into... (12 marks)

Q3b) Study Interpretations 1 and 2. What is the main difference between these views? (4 marks)

Q3c) Suggest one reason why interpretations 1 and 2 would give different interpretations(4 marks)

Q3d) How far do you agree with interpretation 2 about... (20 marks)

## Examples of Germany questions

Q2) Explain why there was opposition in Germany to the Treaty of Versailles. (12 marks)

Q2) Explain why Hitler was able to create a dictatorship between February 1933 and August 1934. (12 marks)

# French

## 4 New GCSE papers: each worth 50 marks and 25 % of the overall grade

Listening and Reading: multiple choices tasks, gap- fills, etc testing comprehension, translation into English (Reading paper only)

Writing : dictation, 40-50 word letter (Foundation), 80-90 words essay (F/H), 150 word essay (Higher), translation English into French (F: sentences/ H: paragraph)

Speaking: Read aloud task, Role-play situation task, photo description and then conversation.

## Topics covered in the exam:

### Unit 1:

Leisure time and new technologies (pros and cons )

### Unit 2:

Relationships and problems (friends and family etc)

### Unit 3:

Keeping healthy (foods/ drinks/ activities)

Buying food, interacting at the restaurant/café, speaking to a medical professional about a problem

### Unit 4:

Future plans for work and life achievements

## Revision:

- Complete the revision booklet which will be given to you by your class teacher
- Complete the revision topics and practice questions set on [Languagenut.com](https://www.languagenut.com)
- Use your knowledge organiser for key phrases (these are presented in the form of sentence builders)
- [French General Conversation Booklet - 2024 Exam Spec.docx](#)

# Engineering

## Unit 1 - Written Exam: (1 hour 30 min)

### Topics to be covered in the exam:

Use the Engineering Revision Guide to prepare for the exam. The sections to focus on are outlined below.

*Top Tip – create flash cards to learn key Engineering facts. These are an excellent way to test your knowledge*

#### Content Area 1; Engineering disciplines

- Engineering Disciplines
- Health and Safety

#### Content Area 2; Applied science and maths in engineering

- SI units of measurement
- Equations

#### Content Area 3; Reading Engineering Drawings

- Dimensions
- Tolerance
- Scale

#### Content Area 4; Properties, characteristics and selection of engineering materials

- Metals – Ferrous & Non-Ferrous.
- Plastics
- Woods / timbers
- Material properties
- Adhesives
- Sustainability

#### Content area 5; engineering tools, equipment and machines.

- Engineering tools & machines

#### Content areas 6 & 7; Hand drawn and CAD engineering drawing.

- Engineering drawings
- First and Third Angle projection
- Rendering & Annotation

#### Content Area 8; production planning techniques

- Hazards / Risk / Control Measures
- Production plans
- Gantt Charts
- Flowcharts

Students will need to revise the sections above using the revision guide provided and the following websites

- [www.technologystudent.com](http://www.technologystudent.com)
- [www.bbcbitese](http://www.bbcbitese)

### Unit 2 – Coursework Assessment

#### Hydraulic Crane Project

Students do not need to prepare any work in advance for work in this unit. All work will be completed in class.

The following pieces of work will be assessed;

- Tools and Materials research
- Isometric drawing of the hydraulic crane
- Orthographic drawing
- Scale model of the hydraulic crane

# Childcare

## Year 10 – Childcare

**Exam Format: 1hr 30 mins exam with total 80 total marks. The exam will cover all 9 content areas listed below.**

Theme/ Topic	Revision Content
Child Development	Aspects of holistic development: <ul style="list-style-type: none"><li>• Physical</li><li>• Cognitive</li><li>• Communication and language</li><li>• Social and emotional</li></ul>
Factors that influence the child's development	Nature and nurture <ul style="list-style-type: none"><li>• Biological and environmental factors</li><li>• Effects of biological and environmental factors</li><li>• Transitions:<ul style="list-style-type: none"><li>• Types of transition</li><li>• The impact of transitions on the child's development</li><li>• Support strategies</li></ul></li></ul>
Care routines, play and activities to support the child	Basic care needs <ul style="list-style-type: none"><li>• Basic care routines and play activities to support the child's development</li><li>• Basic care routines</li><li>• Play activities</li></ul>
Early years provision	Types of early years provision <ul style="list-style-type: none"><li>• The purpose of early years provision</li><li>• Types of early years settings</li><li>• Variation in early years provision</li></ul>
Legislation, policies and procedures in the early years	Legislation and frameworks which underpin policy and procedure: <ul style="list-style-type: none"><li>• Legislation, framework, policy and procedure definitions</li><li>• Legislation</li><li>• Health and safety procedure</li><li>• Equality and inclusion procedure</li><li>• Safeguarding procedure</li><li>• Confidentiality procedure</li><li>• OFSTED</li></ul>

# Childcare

Theme/ Topic	Revision Content
Expectations of the early years practitioner	<ul style="list-style-type: none"><li>• Appearance</li><li>• Behaviour</li><li>• Attendance and punctuality</li></ul>
Roles and responsibilities within early years settings	<ul style="list-style-type: none"><li>• Early years practitioner roles</li><li>• Partnership working in the early years:</li><li>• How partnership working benefits the child, family and practitioner</li><li>• Specialist roles within early years settings</li><li>• Specialist roles outside the early years settings</li></ul>
The importance of observations in early years childcare	Observation and recording methods <ul style="list-style-type: none"><li>• How observations support child development</li><li>• Objective and subjective observation</li><li>• Components of recording observations Different methods of observation</li><li>• Sharing observations</li></ul>
Planning in early years childcare	<ul style="list-style-type: none"><li>• The purpose of a child-centred approach</li><li>• The purpose of the planning cycle</li><li>• The planning cycle</li></ul>

You can revise by using your knowledge organiser and quizzes created on Booklet.

# Hospitality and Catering

**Exam paper 120mins in Hospitality and Catering Provision**

**How Hospitality and Catering Provider Operate**

**Health and Safety in hospitality and Catering**

**Food Safety in hospitality and Catering**

## Revision:

Below is a checklist for the key content in the exam. You will find all the information in the revision guides handed out to you before the half term. Use the information to make revision notes, cards and mind maps. You have also been given points tests which you can use when you are reading the revision guides to consolidate key knowledge. More information on the revision booklet will be given in lesson this week for your unit 1 Exam in June. .

## Paper 1 Checklist:

Catering provision	Tick when completed
Commercial	Yes
Non- Commercial	Yes
Residential	Yes
Non Residential	Yes
Residential Commercial	Yes
Non Residential Commercial	Yes
Work flow	Yes
Residential non-commercial	Yes
Non-residential Non- commercial	Yes
Area that refer to front of the house in hospitality	Yes
Name staffs that work in front of house	Yes
Area that refer to back of house in hospitality	Yes
Name staffs that work in back of house in hospitality.	Yes
The benefit of a permanent contract	Yes
Dress coded	Yes

Catering provision	Tick when completed
Food-related causes of ill health	Yes
Symptoms and signs of food-induced ill health	Yes
Preventative control measures of food-induced ill health	Yes
The Environmental Health Offer (EHO)	Yes
Customer requirement	Yes

Student needed to revise all the above topics and follow the revision guideline provider. for unit 1 exam.  
 Book: Hospitality and Catering vocational Award Level1/2  
 Printing booklet

# Hospitality and Catering

## Questions in the exam

Q1) Describe the benefits of a permanent contract... (4 marks)

Q2) Describe the dress code of a chef... (4 marks)

Q3) Name 4 front of house staffs... (4 marks)

Q4) Name 4 back of house staffs... (4 marks)

Q5) Describe the job role of EHO... (8 marks)

Q6) Lisa is opening a new Bed and Breakfast, describe the basic cost that Lisa needs to consider(10marks)

Explain how a hotel can meet the needs of the following customers

i A couple celebrating their wedding anniversary (6)

ii A person staying on business (6)

**Unit1 Exam Total Marks: 80**

## Unit 2 3.5Hours Practical Exam

**Prepare and cook two dishes with accompaniment. The dishes can be suitable for teenager surfer and for an Adult walking parties. The dish could be a starter, main or a dessert. You will have 3.5hours to cook and present all your dishes for both customers**

Unit 2 Total Marks: 80

Student will be assess on

Task1a Analyse the assignment brief and recommend one dish for each customer 4 Marks

Task 2b Menu planning and Dovetail time plan 10 marks

Task 3a Demonstrate food safety and hygiene practices 8 marks

Task 3b Prepare the dishes basic,medium and complex knife techniques 24 marks

Task 3c Cook the dishes basic,medium and complex cooking Techniques 26 marks

Task 3d Present the dishes, creativity, garnish and decoration, portion control, accompaniments  
8 marks

# Drama

## Component 2 'Performance from text' (Performance or Design for a play)

This will be marked using the GCSE grading criteria for Component 2. The maximum marks are 48 for Component 2.

When completed for the actual exam in Year 11, this component is worth 20% of the overall GCSE Drama Grade.

***Performance Pathway:*** Students will perform extracts from either *Macbeth* or *Blood Brothers*

***Design Pathway:*** Students will design 2 costumes for either *Macbeth* or *Blood Brothers*

Number of performers	Minimum performance time per key extract	Maximum performance time per key extract
1 performance student (monologue)	2 minutes	3 minutes
2 performance students (duologue)	3 minutes	5 minutes

### Characterisation for Performance

**Physical skills include:** body language, eye contact, facial expressions, gait, gesture, pace, quality of movement, space, levels, specialist skills, physical tension.

**Vocal skills include:** accent, emphasis, pace and rhythm, pause, pitch, quality, resonance, tone, volume

### Designers

Designers must gain knowledge and understanding to explore how meaning is communicated through:

- Genre, structure, character, form, style, and language
- Performance conventions
- Use of space and spatial relationships
- Relationship between performer and audience
- production elements.

Designers must understand how text-based performance is created.

They should demonstrate the skills through:

- Developing interpretations independently and collaboratively
- The development of specific artistic intentions, rehearsing, amending and refining text extracts in progress for performance.

Designers must also develop skills in:

- making appropriate judgements during the development process
- interpreting content, narrative, style and form
- responding and adapting designs in response to rehearsal work
- using and applying design skills to contribute to the performance as a whole
- demonstrating the ability to apply design skills effectively within the context of the performance
- communicating intention to an audience.

# Art & Textiles

## 5 hour exam focusing on area A04: Present. 30 marks

### Topics to be covered in the exam:

Students will produce a personal and meaningful response (A04), reflecting on their intention from their sketchbook.

Students have the freedom to choose the medium and work which they are strongest in, and must ensure that their work reflects A01. A02 and A)3 which has been completed already in their sketchbooks.

Students have the choice in the exam to produce a piece of art/ textiles work in any medium.

They could choose to work in:

- Mixed media
- Paint (acrylic, oil or watercolour)
- Oil pastel
- Pencil
- Pastels
- Charcoal
- Printing processes (mono, poly, lino)
- Batik
- Weaving
- Applique
- Freehand machine stitching
- Embroidery

### Revision:

Students are to work from photos and choose a relevant image and medium to work from which reflects their theme and ability.

Students may test their work producing a small sample, prior to the exam.

# Creative Media Production - Component 2

## Component 2 - 60 marks

### Topics to be covered:

#### Pre-Production

1. Create a mindmap for your magazine
2. Research similar magazines
3. Moodboard for your magazine
4. Colour schemes
6. Fonts
7. Coverlines
8. Content
9. Images you have taken
10. Front Cover
11. Experimentation of Front Cover
12. Visualisations

#### Production

1. Front cover and double page conventions
2. Create your article
3. Mock ups
4. Step by step guide:
  - Front cover
  - Double page

#### Post Productions

1. Reflections
2. Review
3. Export your media products

### Revision:

You can practice your skills using [Photopea.com](https://www.photopea.com)

- Text tool
- Altering fonts/sizes
- Adding images
- Adding pull quotes



# Sport Studies - R185 Contemporary Issues in Sport

## R184 Contemporary Issues in Sport - 62 marks

### Topics to be covered:

**Topic Area 1: Issues which affect participation in sport**

**Topic Area 2: The role of sport in promoting values**

**Topic Area 3: The implications of hosting a major sporting event for a city or country**

**Topic Area 4: The role National Governing Bodies (NGBs) play in the development of their sport**

**Topic Area 5: The use of technology in sport**

- Give one example of a factor that can affect participation in sport and explain how it has an impact on participation. (2 marks)

Topic Area 2: The role of sport in promoting values

- Identify one value that sport can promote and describe how sport helps develop this value. (2 marks)

Topic Area 3: The implications of hosting a major sporting event

- State one positive impact of hosting a major sporting event for a country or city. (1 mark)

Topic Area 4: The role of National Governing Bodies (NGBs)

- Describe one role of a National Governing Body in developing its sport. (2 marks)

Topic Area 5: The use of technology in sport

- Give one example of technology used in sport and explain how it improves performance or decision-making. (2 marks)

### Revision:

- Everlearner
- Topic area revision guides



The EverLearner

# My Revision Planner

Week: .....

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9am							
10am							
11am							
12am							
1pm							
2pm							
3pm							
4pm							
5pm							
6pm							
7pm							
8pm							
9pm							

# My Revision Planner

Week: .....

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9am							
10am							
11am							
12am							
1pm							
2pm							
3pm							
4pm							
5pm							
6pm							
7pm							
8pm							
9pm							

# My Revision Planner

Week: .....

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9am							
10am							
11am							
12am							
1pm							
2pm							
3pm							
4pm							
5pm							
6pm							
7pm							
8pm							
9pm							

# Year 10 - Timetable

## Week 1

	Thursday 4 <sup>th</sup> June	Monday 8 <sup>th</sup> June	Tuesday 9 <sup>th</sup> June	Wednesday 10 <sup>th</sup> June	Thursday 11 <sup>th</sup> June	Friday 12 <sup>th</sup> June
Registration and Revision (7:50am start)			Geography	History	English	Creative Imedia for those students - Normal Form for the rest of the Year at 8:30
Period 1 Exam start 9.00am	Art and Textiles Practical All Day					Creative I Media
Period 2	Art and Textiles Practical All Day			Creative IMedia		
Break						
Period 3	Art and Textiles Practical All Day					
Period 4	Art and Textiles Practical All Day		Geography	History	English Language	
Lunch						
Period 5 Exam starts at 2pm	Art and Textiles Practical All Day				Maths Revision in Lessons for all students	
Compulsory EPS	Art and Textiles Practical All Day	English for those not taking Geography	English for those not taking History	English	Maths	Maths

# Timetable

## Week 2

	Monday 15th June	Tuesday 16th June	Wednesday 17th June	Thursday 18th June	Friday 19th June
Registration and Revision (7:50am start)	Maths	Science	Science	English	Maths
Period 1 Exam start 9.00am					
Period 2		Biology - Combined and Triple	French Writing	English Literature	Maths
Break					
Period 3					
Period 4	Maths	French Reading French Listening	Physics - Combined and Triple	Engineering Childcare	Catering PRE
Lunch					
Period 5 Exam starts at 2pm				Engineering or Childcare for those students who had an exam clash	
Compulsory EPS	Science	No EPS	English	Maths	History Students only

# Timetable

## Week 3

	Monday 22nd June	Tuesday 23rd June	Wednesday 24th June	Thursday 25th June	Friday 26th June
Registration and Revision (7:50am start)	College Day	Science	All Geography Students out on a field trip  Catering Group 1	Normal Lessons	Normal Lessons
Period 1 Exam start 9.00am		Chemistry			
Period 2					
Break					
Period 3		History			
Period 4					
Lunch					
Period 5 Exam starts at 2pm		Sports Studies & Music			
Compulsory EPS		No EPS			

# Timetable

## Week 4

	Monday 6 <sup>th</sup> July	Tuesday 7 <sup>th</sup> July	Wednesday 8 <sup>th</sup> July	Thursday 9 <sup>th</sup> July	Wednesday 15 <sup>th</sup> July	Thursday 16 <sup>th</sup> July
Registration and Revision (7:50am start)		Catering Group 2 Practical Drama Practical			Sports Studies Practical Day	
Period 1 Exam start 9.00am	Warrington and Vale Trip for those signed up	Catering Group 2 Practical Drama Practical			Sports Studies Practical Day	
Period 2	Warrington and Vale Trip for those signed up	Catering Group 2 Practical Drama Practical			Sports Studies Practical Day	
Break						
Period 3	Warrington and Vale Trip for those signed up	Catering Group 2 & 3 Practical Drama Practical			Sports Studies Practical Day	
Period 4	Warrington and Vale Trip for those signed up	Catering Group 3 Practical Drama Practical			Sports Studies Practical Day	
Lunch						
Period 5 Exam starts at 2pm	Warrington and Vale Trip for those signed up	Catering Group 3 Practical		Art and Textile - Twilight Session 3pm - 6pm	Sports Studies Practical Day	
Compulsory EPS	Parents Evening	Catering Group 3 Practical		Art and Textile - Twilight Session 3pm - 6pm	Sports Studies Practical Day	