Year 10 Mock 0 Revision Resources

This booklet is designed to support your revision, with revision lists provided for each subject for Mock 0.

Please speak with your teacher for further revision resources, and remember the advice around past exams papers – just google ‘GCSE Maths past papers’, or whichever subject you are looking for.

Don’t forget your weekly Sparx Maths and Sparx Reader homework – this is part of your revision!

Top Revision Strategies

Which are your top three?

WHY?

What makes a revision strategy effective for YOU?

It is really important to work out which types of revision suit <u>you</u> the best:

- Mind-maps
- Key words – post-its
- Flashcards
- Podcasts
- YouTube videos
- Family and friends tests
- Teach a friend
- Practice questions
- Highlighters
- Chant/rap
- Write your own questions
- Mnemonics
- PAST PAPERS

Past Papers

Past papers are a great way to practise for your exams. You get to try real questions from previous years and check your answers using the mark schemes. They also help you spot any topics you're not confident with, so you know what to focus on when revising.

Past papers and mark schemes can be found by googling 'GCSE Past Papers for [subject]'

<u>How do I revise using a past paper?</u>

Step 1: Pick the right past papers for your exam board

Step 2: Do the paper properly, not half heartedly

Step 3: Mark with the mark scheme like an examiner – or ask your teacher to mark it!

Step 4: Build a simple mistake log

Step 5: Turn mistakes into targeted revision

Step 6: Use past papers to train your exam timing

Step 7: Mix past papers with other revision methods

Step 8: Avoid the most common past paper mistakes – don't leave it too late or only do the easy questions – challenge yourself!

GCSE

Maths

Sparx Maths

Foundation Skills List

Number

Topic	Topic code	R	A	G
Ordering positive integers	U600			
Ordering decimals	U435			
Ordering negative numbers	U947			
Adding and subtracting positive integers	U417			
Multiplying and dividing positive integers	U127, U453			
Adding and subtracting negative numbers	U742			
Multiplying and dividing negative numbers	U548			
Adding and subtracting decimals	U478			
Multiplying and dividing with place value	U735			
Multiplying and dividing with decimals	U293, U868			
Order of operations	U976			
Prime numbers, prime factorisation	U236, U739			
Factors, multiples, HCF and LCM	U211, U751, U529			
Powers and roots	U851			
Using standard form	U330, U534			
Calculating with standard form	U264, U290, U161			
Equivalent fractions and simplifying fractions	U704, U646			
Mixed numbers and improper fractions	U692			
Ordering fractions	U746			
Addition and subtraction of fractions	U736, U793			
Multiplication and division of fractions	U475, U544			
Converting and ordering fractions, decimals and percentages	U888, U594			
Fractions of amounts	U881, U916			
Percentages of amounts	U554, U349			
Percentage change	U773, U671			
Reverse percentages	U286, U278			
Simple interest	U533			
Rounding	U480, U298			
Rounding to significant figures	U731, U965			
Estimating answers	U225			
Value for money	M681			

Algebra

Topic	Topic code	R	A	G
Algebraic expressions	U613			
Collecting like terms	U105			
Substitution	U201, U585, U144			
Expanding brackets	U179, U768			
Factorising expressions	U365			
Index laws	U235, U694, U662, U103			
Changing the subject	U556			
Coordinates	U789, U889			
Midpoints	U933			
Plotting straight line graphs	U741			
Equations of straight line graphs	U315, U669			
Parallel lines	U377			
Distance-time graphs	U403, U914, U462, U966			
Quadratic graphs	U989, U667			
Linear equations	U755, U325, U870, U505, U599			
Quadratic expressions and equations	U178, U228			
Linear sequences	U213, U530, U498, U978			
Other sequences	U958, U680			

Ratio and proportion

Topic	Topic code	R	A	G
Simplifying ratios	U687			
Sharing amounts in a ratio	U753, U577			
Converting between ratios, fractions and percentages	U176			
Direct proportion	U721, U640			
Inverse proportion	U357, U364			
Proportion graphs	U238			
Units of measure: Length, Mass and Capacity	U102, U388			
Units of measure: Time	U902			
Units of measure: Area	U248			
Currency conversion	U610			
Conversion graphs	U652, U638, U862			
Compound units: Speed	U151			

Sparx Maths

Foundation Skills List

Geometry

Topic	Topic code	R	A	G
Properties of 2D shapes	U121, U849			
Properties of 3D shapes	U719			
Nets of 3D shapes	U761			
Angles: Measuring, Drawing and Estimating	U447			
Angle on a line and about a point	U390			
Vertically opposite angles	U730			
Angles on parallel lines	U826			
Angles in a triangle	U628			
Combining angle facts	U655			
Angles in a quadrilateral	U732, U329			
Angles in polygons	U427			
Bearings	U525, U107			
Translations	U196			
Reflections	U799			
Enlargements	U519			
Rotations	U696			
Congruence	U790, U866			
Area and perimeter of simple shapes	U993, U970, U351, U226			
Area of triangles, parallelograms and trapeziums	U945, U575, U424, U265, U343			
Circles	U767			
Circumference	U604, U221			
Circle area	U950, U373			
Surface area	U929, U259, U871			
Volume of cuboids	U786			
Volume of prisms and cylinders	U174, U915			
Similar shapes	U551, U578			
Scale diagrams	U257			

Probability

Topic	Topic code	R	A	G
Probability scale	U803			
Probability of single events	U408, U510, U683			
Experimental probability	U580			
Expected outcomes	U166			
Listing elements in a set	U748, U296			
Probability from Venn diagrams	U476			
Frequency trees	U280			
Sample space diagrams	U104			
Tree diagrams	U558, U729			

Statistics

Topic	Topic code	R	A	G
Collecting data, frequency tables	U322, U120			
Two-way tables	U981			
Bar charts	U363, U557			
Pictograms	U506			
Pie charts	U508, U172			
Stem and leaf diagrams	U200, U909			
Mode	U260			
Mean	U291			
Median	U456			
Range	U526			
Choosing averages	U717			
Scatter graphs	U199, U277, U128			

Sparx Maths

Higher Skills List

Number

Topic	Topic code	R	A	G
Calculating with roots and fractional indices	U851, U985, U772, U299			
Converting recurring decimals to fractions	U689			
Surds	U338, U663, U872, U499			
Rationalising the denominator	U707, U281			
Error intervals	U657, U301, U587			

Algebra

Topic	Topic code	R	A	G
Expanding triple brackets	U606			
Operations with algebraic fractions	U685, U457, U824			
Factorising quadratic expressions: ax^2+bx+c	U858			
Simplifying algebraic fractions	U294			
Factorising to solve quadratics equations	U228, U960			
Using the quadratic formula	U665			
Completing the square to solve quadratics	U397, U589			
Quadratic equations in context	U150			
Quadratic simultaneous equations	U547			
Index laws	U235, U694, U662			
Equation of a straight line: Perpendicular lines	U898			
Quadratic graphs: Turning points	U769			
Quadratic simultaneous equations on graphs	U875			
Exponential graphs	U229			
Exponential growth and decay problems	U988			
Trigonometric graphs	U450			
Graph transformations	U598, U487, U455			
Velocity-time graphs	U937, U562, U611			
Rate of change graphs	U638, U652, U862			
Estimating gradient from a curve	U800			
Estimating area under a curve	U882			
Equation of a circles and tangents	U567			
Linear inequalities as graph regions	U747			
Quadratic inequalities	U133			
Functions	U637, U895, U448, U996			
Recurrence relations	U171			
Quadratic sequences	U206			
Iteration and numerical methods	U434, U168			
Algebraic proof	U582			

Ratio and proportion

Topic	Topic code	R	A	G
Algebraic direct and inverse proportion	U407, U138			
Compound units: Density problem solving	U910			

Geometry

Topic	Topic code	R	A	G
Congruence proofs	U866, U887			
Enlargements	U134			
Describe combined transformations	U766			
Circle theorems: Angles inside a circle	U459, U251			
Circle theorems: Tangents and chords	U489, U130			
Circle theorems problems	U808			
Prove circle theorems	U807			
Volume of frustums	U350			
Volume: Problem solving	U543, U426			
Similar Shapes: Area and volume	U630, U110			
Pythagoras' Theorem in 2D and 3D	U385, U541			
Right-angled trigonometry: Problem solving	U319, U283, U545, U967			
3D trigonometry	U170			
The area rule	U592			
Sine rule	U952			
Cosine rule	U591			
Trigonometry and bearings	U164			
Vectors problems	U781, U560			

Probability

Topic	Topic code	R	A	G
Product rule for counting	U369			
Conditional probability	U246, U821, U806			
Probability from Venn diagrams	U476, U748, U699			

Statistics

Topic	Topic code	R	A	G
Averages	U877, U717			
Cumulative frequency diagrams	U182, U642			
Box plots	U879, U837, U507			
Frequency polygons	U840			
Histograms	U814, U983, U267			
Capture-recapture	U328			

GCSE English Language

English Language Paper 1

Section A

Q1	4 marks	List 4 things			
Q2	8 marks	How does the writer use language...		Writer + quotation	The writer... For example... / When...
				Zoom x 3 sentences	Here,... In particular... / More specifically... Metaphorically... / Symbolically... It is almost as if... / It is as though...
				Effect on the reader	Therefore the reader... ...because...
Q3	8 marks	How does the writer use structure		Focus of the beginning / middle / end	beginning / middle / end focus shift / linger
				Effect on the reader	...which makes the reader feel / wonder / question / think...
				Writer	...because the writer...
Q4	20 marks	To what extent do you agree with the statement		Writer + quotation	The writer... For example... / When...
				Zoom x 3 sentences	Here,... In particular... / More specifically... Metaphorically... / Symbolically... It is almost as if... / It is as though...
				Effect on the reader	Therefore the reader... ...because...

Section B

Q5	40 marks	Write a description inspired by the image	S	Describe the **s**ky	[word]. Repeat the [word]. The sky was...
			T	Describe a **t**iny detail	Below / beneath the... On...
			A	Describe the **a**tmosphere	It was a place / space / time... Everything / everywhere...
			R	Describe a **r**eaction	And then, suddenly... +repetition
			T	**T**o... was **t**o...	To... was to...

English Language Paper 2

Section A

Q1	4 marks	True or false			
Q2	8 marks	Summarise the differences…		Point + quotation	[Similarly / however] in Source A/B… For example… / When…
				Go beneath the surface	…implies… …because… …and so… +society +humans +conflict
Q3	12 marks	How does the writer use language?		Writer + quotation	The writer… For example… / When…
				Zoom x 3 sentences	Here,… More specifically… / In particular… The use of… / The image of… By…, the writer… It is almost as if… / It is as though… Metaphorically… / Symbolically… Maybe… / Perhaps… / It could be…
				Effect on the reader	Therefore the reader… …because…
Q4	16 marks	Compare how writers…		Writer + quotation + compare	[Similarly / however] The writer… For example… / When…
				Zoom x 3 sentences	Here,… More specifically… / In particular… The use of… / The image of… By…, the writer… It is almost as if… / It is as though… Metaphorically… / Symbolically… Maybe… / Perhaps… / It could be…
				Effect on the reader	Therefore the reader… …because…

Section B

Q5	40 marks	Write a: • speech • leaflet • letter • essay • article	E	Establish the audience	As you… there's probably only one question…: "…?" To that I say: … It is…; it is…; it is… that…
			P	Picture this:	Picture this: a dystopian world full of…
			I	Now imagine	Now imagine… Visualise… This could…
			I	Information	Experts… Statistics… Interviews…
			I	I – personal anecdote	I can't help but remember… I am visited by a vivid image of…
			C	Counter-argument and conclusion	You may still be… However,… To… is to…

1. **Read** the question
2. **Read** Source A and Source B
3. **Underline** two quotes in each source that link to the question

1. **Read** the part of the extract the question is asking about
2. **Underline** the most important **3** quotations that link to the question
3. **Circle** the most important word or phrase in the quotations
4. **Annotate** the most important words or phrases – write 3 things they make you think of

1. **Read** the question
2. **Underline 2** quotations in each source that link to the question
3. **Circle** the most important word or phrase in the quotations
4. **Annotate** the most important words or phrases – write 3 things they make you think of

1. **Circle** which text type you are writing (a speech / leaflet / letter / essay / article)
2. **Decide** whether you are **for** or **against** the statement
3. **Note** down what the worst possible world would be like *if people don't listen to you*
4. **Note** down what the best possible world would be like *if people do listen to you*

GCSE English Literature

A Christmas Carol, by Charles Dickens

A. Context

1760-≈1840	**The Industrial Revolution:** a transition in manufacturing from hand production methods to machinery. Production and income increased, but economic disparity ensued between workers and factory owners.
1798	***An Essay on the Principle of Population,* by Thomas Malthus:** those in poverty should not be invited to 'nature's mighty feast.'
1824	Dickens is separated from his family to work in a blacking factory due to his father's imprisonment for debt.
1834	**The New Poor Laws:** Amendments to law that restricted money going to the most needy and forced paupers into workhouses
1837	***Oliver Twist* first published: a novel about a pauper who suffers from the injustice of Victorian society.**
1840	The marriage of Queen Victoria and Albert of Saxe-Coburg.
1843	**The novella, *A Christmas Carol* first published.**

The Victorian fascination with 'The Gothic': a genre where mysterious or unusual things happen in frightening places & induce fear – inc: death/decay; haunted homes / castles; family curses; madness; powerful love/romance; ghosts and vampires.

B. Vocabulary/Concepts

Benevolence	**Kindness.**
Malevolence	**Evil, badness.**
Misanthropy	**Hatred of humans.**
Philanthropy	**Generosity.**
Dogmatic	**Stubborn.**
Malleable	**Can change; flexible.**
Hearth	A symbol of community.
Avarice	**Greed.**
Altruism	**Generosity.**
Callous	**Cold-hearted.**
Ignorance	**Being unaware.**
Want	**A lack or deficiency.**
Injustice	**Unfairness and inequality.**
Destitution	**Extreme poverty.**
Blinkered	**Narrow-minded; limited.**

C. Summary

Stave 1	Scrooge is visited by Fred, the two portly gentlemen and finally the ghost of Jacob Marley.
Stave 2	The Ghost of Christmas Past takes Scrooge on a journey to see key events and people of his past including Fan, Fezziwig and Belle.
Stave 3	The Ghost of Christmas Present visits Scrooge and takes him on a journey to the Cratchit household, some isolated workers and finally to Fred's Christmas party. Scrooge sees Ignorance and Want.
Stave 4	The Ghost of Christmas Yet to Come visits Scrooge and shows him the future if things do not change.
Stave 5	Christmas morning! Scrooge repentantly speaks with the portly gentleman and visits Fred. On Boxing Day, Scrooge surprises Bob.

D. Thematic Content

Christmas	Novella deeply influential with regards to how we see Christmas.
Family	Dickens promotes the effervescent joy of familial life.
Redemption	**Dickens presents the concept of transformation and how it is never too late.**
Social Injustice	**Victorian London had a stark contrast between rich and poor.**
Charity/Philanthropy	**The lack of a social security system heightened the need for altruistic giving and this is a core tenet of Dickens' message.**
Responsibility	**The concern for the well-being of others, specifically the poor.**

E. Key Characters

Scrooge	Miserly protagonist.
Ghost of Christmas Past	Childlike apparition.
Ghost of Christmas Present	Majestic green giant.
Ghost of Christmas Yet to Come	A terrifying phantom.
Fred	Scrooge's nephew.
Bob Cratchit	Scrooge's clerk.
Marley	Former partner to Scrooge.
Fezziwig	Scrooge's first employer.
Fan	Srcooge's sister.
Belle	Srcooge's fiancée.

F. Quotations

1. ***'Scrooge! A squeezing, wrenching, grasping, scraping, clutching, covetous old sinner!'***
2. ***'No warmth could warm, no wintry weather chill him.'***
3. ***'Hard and sharp as flint … solitary as an oyster.'***
4. *'…that he was all in a glow; his face was ruddy and handsome; his eyes sparkled.'*
5. ***'Are there no prisons?' '…decrease the surplus population.'***
6. ***'Though it has never put a scrap of gold or silver in my pocket, I believe that it has done me good, and will do me good; and I say, God bless it!'***
7. ***'Mankind was my business. The common welfare was my business; charity, mercy, forbearance, and benevolence were all my business'***
8. *'From the crown of its head there sprung a bright clear jet of light.'*
9. *'Your lip is trembling,' said the Ghost. 'And what is that upon your cheek?'*
10. *'A solitary child, neglected by his friends, is left there still.'*
11. ***'He corroborated everything, remembered everything, enjoyed everything, and underwent the strangest agitation.'***
12. *'What Idol has displaced you?' he rejoined. 'A golden one.'*
13. *'There sat a jolly Giant, glorious to see, who bore a glowing torch.'*
14. ***'They are Man's…This boy is Ignorance. This girl is Want. Beware them both'***
15. *'Are there no prisons? … Are there no workhouses?'*
16. *'The Phantom slowly, gravely, silently approached…'*
17. *'Quiet. Very quiet. The noisy little Cratchits were as still as statues in one corner.'*
18. *'The only emotion that the Ghost could show him, caused by the event, was one of pleasure.'*
19. ***'I will live in the Past, the Present, and the Future!'***
20. ***'I am not the man I was.'***
21. *'I am about to raise your salary!'*
22. ***'I am as light as a feather, I am as happy as an angel, I am as merry as a schoolboy'***
23. ***'God bless us, Every one!'***

G. Critical Approaches

Quasi-religious	To what extent does A Christmas Carol promote the ideology of Christianity?
Marxist	**Viewing the novella through the prism of social class.**
Psychoanalytical	Examining the id (impulsive desires), ego (self) and superego (morals).
Existential	The importance of the individual subject and their place in the world.

H. Literary Techniques

Asyndetic listing	The omission of conjunctions in lists.
Syndetic listing	Connected via conjunctions.
Symbolism	**One thing standing for, or representing, another.**
Allegory	**A text that can be interpreted to reveal a hidden meaning, typically a moral or political one.**
Semi-autobiographical	Dealing partly with, or pertaining to, the writer's own life.
Social commentary	**A text that critiques the state of society.**
Pathetic Fallacy	Weather reflecting the mood or atmosphere.
Author's Voice	**A technique where a writer conveys their ideology through a character/s.**

Macbeth, William Shakespeare

written in 1606 – Jacobean era	Written after Gunpowder Plot 1605	Divine Right of Kings = king chosen by God	Great Chain of Being = Jacobean social hierarchy	wanted to expose how creating instability in society is punished with instability in the mind	wanted to demonstrate that transgression of Jacobean expectations / the status quo is punished	wanted to promote the preservation of the Jacobean status quo to please King James	Jacobean women were expected to be passive, pious and pure

Macbeth

At the start of the play, Macbeth is **loyal and masculine**	
"brave" + "noble" + "honourable" "we love him highly"	+warrior +loyal +patriotic
Macbeth's mind is already **infected by the witches** without him realising it	
"so foul and fair a day I have not seen"	+echoing +mirroring +supernatural
Macbeth **attempts to be moral**	
"we will proceed no further in this business"	+preserve +morality +determined
"stars, hide your fires. Let not the light see my black and deep desires"	+repress +hide +immorality
Macbeth is **emasculated** by Lady Macbeth	
"when you durst do it, then you were a man" "are you a man?" + "coward"	+masculinity +fragmented +corrupted
Macbeth becomes **mentally fractured**	
Hallucinates a "dagger of the mind" before killing Duncan	+destruction of +psyche +stability
Hears a voice cry "sleep no more" "Macbeth doth murder sleep" after killing Duncan	+peace +tranquillity +destabilised
Says "o, full of scorpions is my mind, dear wife" before killing Banquo	+predatory +poisonous +thoughts
Tells the Ghost of Banquo to "never shake thy gory locks at me"	+command +banish +supernatural
Macbeth becomes **hopeless** after the death of Lady Macbeth	
"tomorrow and tomorrow and tomorrow"	+repetition +time +lost meaning
"it is a tale, told by an idiot, signifying nothing"	+futility of life +foolishness +hopelessness
Macbeth's mind, reputation, power has been **irreparably destroyed**	
"tyrant" + "dead butcher"	+callous +dehumanised +reduced

Lady Macbeth

She **transgresses expectations** of Jacobean women	
"unsex me here"	+liberated +imprisoned +stereotypes
"take my milk for gall"	+femininity +fertility +poison
Connected to the **supernatural** - arguably the fourth witch	
"come, you spirits" "pour my spirits in thine ear"	+immoral +"foul" +corrupt
Lady Macbeth is **transgressively dominant**	
"my battlements" + "leave all the rest to me" + "put the night's great business into my dispatch [control]"	+possessive +authority +control
Lady Macbeth **emasculates** Macbeth	
"when you durst do it, then you were a man" "are you a man?" + "coward"	+masculinity +fragmented +corrupted
Lady Macbeth is a **corrupting influence** and connected to **immorality**	
"nor heaven peep through the blanket of dark"	+conceal +hide +immorality
"look like the innocent flower but be the serpent under it"	+façade of purity +duplicitous +devil / evil / sin
Lady Macbeth **callously trivialises** the "deed"	
"a little water clears us of this deed" "consider it not so deeply"	+callous +trivialise +cruel +immoral
She experiences **mental fragmentation / fracturing** due to her guilt	
"she has a light by her continually"	+desire for +purity +innocence
"Out, damned spot! Out I say!"	+permanent +intangible +stain
"to bed, to bed, to bed"	+purity +futile
Lady Macbeth's **off-stage suicide** – she is made invisible to the audience as punishment for her transgression of Jacobean expectations	

The Witches

The witches create an **atmosphere of chaos,** destabilising morality	
"fair is foul and foul is fair"	+paradox +inverting / flipping +morality
"hurly-burly"	+chaos +disorder +turmoil
Macbeth's mind is already **infected by the witches** without him realising it	
"so foul and fair a day I have not seen"	+echoing +mirroring +supernatural
The witches are **transgressive** – they **subvert expectations**	
"look not like the inhabitants of the Earth"	+transgressive +subversive +defy expectations
"you should be women, and yet your beards forbid me to interpret that you are so"	+transgress +subvert +defy expectations
The witches **corrupt the minds** of Lady Macbeth and Macbeth with **hallucinations,** which destabilise them	
"a dagger of the mind" "gory locks" "sleep no more" "damned spot"	+corrupt +infect +poison +psyche +fragment +fracture
The witches **confuse Macbeth** with their predictions	
1."Beware Macduff" 2."None of woman born shall harm Macbeth" 3."Macbeth shall never vanquished be until Great Birnam Wood to high Dunsinane Hill shall come against him"	+confuse +destabilise +make Macbeth hubristic
Macbeth realises that the witches have brought **chaos and destruction**	
"juggling fiends"	+chaos +disorder +turmoil +destabilise +status quo +stability of mind

GCSE Science (Combined)

Biology Paper One (combined): check list

The combined science GCSE is assessed across six 75-minute exams. This check list covers all content assessed on the first combined science biology paper (Biology Paper One).

Unit	Areas of the specification covered (combined science)
B14 – What are organisms made of?	• Plant, animal and bacterial cells • Microscopes • Differentiation and specialised cells • Stem cells & the cell cycle • Transport in cells • *Practical:* Using a light microscope • *Practical:* Investigating osmosis
B15 – Why are organ systems vital for life?	• Tissues, organs and organ systems • Enzymes and the digestive system • Heart and the circulatory system • Risk factors for disease and cancer • Transpiration and translocation in plants • Practical: Food tests • Practical: Effect of pH on enzyme action
B16 – How does medicine keep us healthy?	• Bacterial diseases • Viral diseases • Protist & fungal diseases • Medicines and the bodies defences • Vaccination • Drug development
B17 – What is bioenergetics?	• Photosynthesis • Respiration in animals, plants & yeast • Plant metabolism • Factors affecting photosynthesis • Human metabolism • How the body responds to exercise • Practical: light intensity & photosynthesis

Chemistry paper one (combined): Check list

The combined science GCSE is assessed across six 75-minute exams. This check list covers all content assessed on the first combined science chemistry paper (Chemistry Paper One).

Unit	Areas of the specification covered (combined science)
C14 – How do chemists use the periodic table?	• atoms, elements and compounds • Isotopes relative atomic mass • Mixtures and separation technics • Models of the atom • Development of the periodic table • Periodic groups & electron configuration
C15 – What is chemical bonding?	• Metallic bonding and properties • Ionic bonding and properties • Molecular substances • Giant molecular substances • Fullerenes and polymers
C16 – How do we calculate the amount of a substance?	• Chemical formulas and balanced equations • Calculating concentration • Conservation of mass • Relative formula mass • Moles (HT only) • Reacting masses & limiting reagents (HT only)
C17 – How do chemists measure energy changes?	• Exothermic and endothermic reactions • Reaction profiles • 'Uncertainty' in measurements. • Bond energies (HT only) • *Practical*: Investigating temperature changes
C18 – What are chemical changes	• Reactions of metals with oxygen and acids • The reactivity series & displacement • Redox reactions (HT only) • Neutralisation reactions + pH • Strong and weak acids (HT only) • Molten electrolysis • Aqueous electrolysis • Practical: Producing a soluble salt • Practical: Aqueous electrolysis

Physics Paper One (combined): check list

The combined science GCSE is assessed across six 75-minute exams. This check list covers all content assessed on the first combined science physics paper (Physics Paper One).

Unit	Areas of the specification covered (combined science)
P13 – How do we analyse energy changes?	• Energy stores and systems • Changes in energy (calculations) • Specific heat capacity • Power • Dissipation of energy and efficiency • National and global energy resources • *Practical*: Specific heat capacity
P14 – How do we use electricity?	• Circuit symbols and diagrams • Current, potential difference and resistance • Series and parallel circuits • Resistors and IV characteristics • Direct and alternating current • Mains electricity, plugs and the national grid • *Practical*: Length of wire and resistance • *Practical*: adding resistors in series & parallel • *Practical*: Investigating "I-V characteristics"
P15 – How do we explain the properties of matter	• The particle model • Changes of state • Measuring Density • Particle model: density & pressure • Internal energy store • Cooling curves • Practical: investigating the density of objects
P16 – What is radioactivity	• Models of the atom • Isotopes and ions • Radioactive decay & nuclear equations • Alpha, Beta and Gamma radiation • Half-life • Irradiation and contamination

GCSE Science (Triple)

GCSE Biology Paper One: check list

GCSE Biology (separate) is assessed across two 1 hour and 45-minute exams.
This check list covers all content assessed on the first GCSE biology paper (Biology Paper One).

Unit	Areas of the specification covered (Separate science)
B14 – What are organisms made of?	• Plant, animal and bacterial cells • Microscopes • Differentiation and specialised cells • Culturing microorganisms • Stem cells & the cell cycle • Transport in cells • *Practical:* Using a light microscope • *Practical*: antiseptics and bacterial growth • *Practical:* Investigating osmosis
B15 – Why are organ systems vital for life?	• Tissues, organs and organ systems • Enzymes and the digestive system • Heart and the circulatory system • Risk factors for disease and cancer • Transpiration and translocation in plants • *Practical*: Food tests • *Practical*: Effect of pH on enzyme action
B16 – How does medicine keep us healthy?	• Bacterial diseases • Viral diseases • Protist & fungal diseases • Medicines and the bodies defences • Vaccination • Drug development • Monoclonal antibodies • Plant disease
B17 – What is bioenergetics?	• Photosynthesis • Respiration in animals, plants & yeast • Plant metabolism • Factors affecting photosynthesis • Human metabolism • How the body responds to exercise • *Practical*: light intensity & photosynthesis

GCSE Chemistry paper one: Check list

This check list covers all content assessed on the first GCSE Chemistry paper

Unit	Areas of the specification covered (separate science)
C14 – How do chemists use the periodic table?	• Atoms, elements and compounds • Isotopes relative atomic mass • Mixtures and separation technics • Models of the atom • Development of the periodic table • Periodic groups & electron configuration • Transition metals • Nano particles
C15 – What is chemical bonding?	• Metallic bonding and properties • Ionic bonding and properties • Molecular substances • Giant molecular substances • Fullerenes and polymers
C16 – How do we calculate the amount of a substance?	• Chemical formulas and balanced equations • Calculating concentration • Conservation of mass • Relative formula mass • Moles (HT only) • Reacting masses & limiting reagents (HT only) • Yield and atom economy • Reacting concentrations & volumes (HT only)
C17 – How do chemists measure energy changes?	• Exothermic and endothermic reactions • Reaction profiles • 'Uncertainty' in measurements. • Bond energies (HT only) • *Practical*: Investigating temperature changes
C18 – What are chemical changes	• Reactions of metals with oxygen and acids • The reactivity series & displacement • Redox reactions (HT only) • Neutralisation reactions + pH • Strong and weak acids (HT only) • Molten electrolysis • Aqueous electrolysis • Chemical cells and fuel cells • *Practical*: Producing a soluble salt • *Practical*: Titrations • *Practical*: Aqueous electrolysis

GCSE Physics Paper One: check list

GCSE Physics (separate) is assessed across two 1 hour and 45-minute exams.
This check list covers all content assessed on the first GCSE Physics paper (Physics Paper One).

Unit	Areas of the specification covered (Separate science)
P13 – How do we analyse energy changes?	• Energy stores and systems • Changes in energy (calculations) • Specific heat capacity • Power • Dissipation of energy and efficiency • National and global energy resources • *Practical*: Specific heat capacity • *Practical*: Thermal insulation
P14 – How do we use electricity?	• Circuit symbols and diagrams • Current, potential difference and resistance • Series and parallel circuits • Resistors and IV characteristics • Direct and alternating current • Mains electricity, plugs and the national grid • Static charge & electric fields • *Practical*: Length of wire and resistance • *Practical*: adding resistors in series & parallel • *Practical*: Investigating "I-V characteristics"
P15 – How do we explain the properties of matter	• The particle model • Changes of state • Measuring Density • Particle model: density & pressure • Internal energy store • Cooling curves • Pressure in gases • *Practical*: investigating the density of objects
P16 – What is radioactivity	• Models of the atom • Isotopes and ions • Radioactive decay & nuclear equations • Alpha, Beta and Gamma radiation • Half-life • Uses and risks of radioactive material • Background radiation • Nuclear fission and fusion

GCSE

History

Student revision checklist: Migrants in Britain, c.800-present

Key topic	Topic detail	👍	OK	👎	Revision completed:
Migration in medieval England 800-1500	Context of medieval England: growing towns, the monarchy, wool industry, England as part of Christendom				
	Reasons people migrated to England: Vikings, Normans, Jews, traders and craftsmen				
	Experiences of migrants in England: legal status, impact of the Black Death, how they were treated by the government and people				
	Impact of migrants on England: Danelaw, culture, trade, buildings				
	Case study: York under the Vikings				
Migration in early modern England 1500-1700	Changing context of English society: social change, economic growth (cloth industry, East India Company and others), trade, the Reformation and England becoming Protestant				
	Reasons people migrated to England from Europe and Africa (changes and continuity compared to medieval times)				
	Experiences of migrants in England: relations with the government and people				
	Impact of migrants on England: culture, trade, industry and agriculture.				
	Case studies: Sandwich and Canterbury in the 1500s (Flemish and Walloon migrants); the experience of Huguenots in the 1600s.				
Migration in eighteenth and nineteenth century Britain 1700-1900	Changing context of British society: Industrial Revolution, urbanisation, transatlantic slavery, British Empire, changing social structures and civil liberties.				
	Reasons for migration from Ireland, Europe and the British Empire				
	Experiences of migrants in Britain: relations with the government and people, role of the media.				
	Impact of migrants in Britain: culture, trade, industry, politics, the urban environment (towns and cities).				
	Case studies: Liverpool; the experience of Jewish migrants in the East End.				
Migration in modern Britain 1900-today	Changing context of British society: World Wars, end of the British Empire, decolonisation, the Commonwealth, EU membership, laws passed on migration and nationality (eg Aliens Act 1905).				
	Reasons people migrated to Britain from Ireland, Europe, the British Empire, the Commonwealth. Refugees and asylum seekers.				
	Experiences of migrants, including anti-immigration movements and campaigns for equal rights. Race Relations Act (1965)				
	Impact of migrants in Britain: culture, politics, public services, the economy, the urban environment (towns and cities).				
	Case studies: Bristol in the mid-twentieth century; the experience of Asian migrants in Leicester from 1945.				
Notting Hill, c1948-1970	**Local context of Notting Hill:** reasons for Caribbean migration to the area, housing problems, overcrowding, the Notting Hill Housing Trust, Portobello Road market.				

Student revision checklist: Migrants in Britain, c.800-present

	Influence of Caribbean cultures on Notting Hill: development of shops, markets, cafes/restaurants, shebeens, nightclubs – Caribbean food and music. All Saints Road. Mutual self-help organisations eg 'pardner' schemes.				
	Racism and policing: Notting Hill riots (1958), murder of Kelso Cochrane, anti-immigrant groups, Oswald Mosley's Union movement and 1959 election campaign.				
	Black activism in the Notting Hill area: Claudia Jones, *West Indian Gazette*, 1959 Caribbean Carnival, Notting Hill Carnival, Frank Crichlow and the Mangrove Restaurant, the 'Mangrove Nine'.				
	National and regional context: Britain after the Second World War, Commonwealth connections, need for workers, 'Swinging Sixties', poverty in London, policing in London				
	Knowing some examples of the local and national sources which are relevant to Notting Hill: for example: local newspapers, publications for the Caribbean community, local council and police records, oral and written memories of local residents, photographs, housing and job records; national newspapers, government records, census data, opinion polls, television reports.				

GCSE Geography

Paper 1: *Living with the Physical Environment*

Section A Natural Hazards Topic area
What are natural hazards? • Different types of natural hazard • Risks which increase hazard risk.
Plate tectonics theory • Where do earthquakes and volcanoes happen? • What physical processes create these tectonic hazards?
Effects and responses to tectonic hazards • Primary and secondary effects • Immediate and long term responses • Named examples contrasting in two areas of contrasting wealth.
Management of natural hazards • Reasons why people live in areas of tectonic hazards • How monitoring, prediction and planning can reduce risk
Global atmospheric circulation
Tropical Storms causes • Distribution, causes, structure and features of tropical storms • How can climate change affect distribution, frequency and intensity of storms
Tropical storms effects • Primary and secondary impacts • Immediate and long term responses • Named example of effects and responses • How does monitoring, prediction, protection and planning reduce their effect
Extreme weather in the UK • Recent extreme weather in the UK • Causes, Social, environmental and economic impacts • How management strategies can reduce risk • Evidence that weather is becoming more extreme in the UK
Climate change • Evidence for climate change • Possible causes (man-made and natural) • Overview of the effects of climate change
Managing climate change • Mitigation- alternative energy production, international agreements, planting trees • Adaptation- change in agricultural systems, managing water supply, reducing risk from rising sea levels

Section B The Living World Topic area
Ecosystems: Example of a small-scale UK ecosystem • Interrelationships within a natural system • Producers, consumers, decomposers, food chain, food web and nutrient cycling. • Balance between all components and how changing one component affects the ecosystem Overview of global ecosystems
Tropical Rainforest- Physical characteristics • Structure of the rainforest • Interdependence (climate, water, soil, plants, animals and people) • Adaptations • Biodiversity
Tropical Rainforest- Human economic impacts • Rates of deforestation CASE STUDY- Causes of deforestation • Impacts of deforestation
Tropical Rainforest- Value of the rainforest • To people and the environment • Strategies to manage the rainforest in a sustainable manner
Hot Deserts- Physical Characteristics • Natural characteristics • Interdependence (climate, water, soil, plants, animals and people) • Adaptations • Biodiversity
Hot deserts- Human economic impacts CASE STUDY- • Development opportunities • Challenges of developing hot deserts
Hot Deserts- Environmental issues • Causes of desertification • Strategies used to reduce the impact of desertification

Section C Physical Landscapes. Topic area
Overview of the relief of the UK (upland/lowland and river systems)
Coastal Landscapes- Physical processes • Waves- types and characteristics • Coastal processes a. Weathering processes (Chemical and mechanical) b. Mass movement (sliding, slumping and rock falls) c. Erosion (Hydraulic power, abrasion, attrition) d. Transportation (longshore drift)
Coastal landscapes- Landforms • How geology and rock type affects coastal forms • Erosional landforms (headland, bay, cliffs, wave cut platforms, caves, arches, stacks) • Deposition landforms- beaches, sand dunes, spits and bars • An example of section of UK coastline major landforms
Coastal Landscapes- Management Costs and benefits of: • Hard engineering (Sea walls, rock armour, gabions, groynes) • Soft engineering (beach nourishment, reprofiling, dune regeneration) Example of management strategy in the UK • Reasons for the management • Management strategy • Effects and conflicts
River Landscapes- Physical processes • Long and cross profile of a river and its valley • Fluvial processes a. Erosion (hydraulic action, abrasion, attrition, solution, vertical and lateral) b. Transportation (traction, saltation, suspension, solution) c. Deposition
River landscapes- Landforms • Erosional landforms- interlocking spurs, waterfalls and gorges • Erosion and deposition landforms- meanders/ox bow lakes • Deposition landforms – levees, flood plains, estuaries An example of section of a UK river valley and its major landforms
River Landscapes- Management • Physical and human factors affecting flood risk • Hydrographs Costs and benefits of: • Hard engineering (dams, reservoirs, straightening, embankments, flood channels) • Soft engineering (warnings, preparation, flood plain zoning and river restoration) Example of management strategy in the UK • Reasons for the management • What was done. • Social, environmental and economic issues

Paper 2: *Challenges in the Human Environment*

Section Urban Issues Topic area
Growing global population in urban areas • Global pattern of urban change • Urban trends in LICs and HICs • Push and pull factors • Megacities
CASE STUDY: Major city in LIC/NEE: • Location and importance nationally/internationally of city • Causes of growth • Opportunities created by urban growth • **Social**: Services: health and education, access to resources – water and energy. • **Economic**: urban areas are stimulus for economic development • Challenges created by urban growth • Slums, Providing clean water, Access to services • Reducing unemployment and crime • Managing the environment • Example of how planning is improving the QOL for urban poor
Overview of distribution of population and major cities in the UK
CASE STUDY: Major city in the UK • Location and importance nationally/internationally of city • Impacts of national and international migration on the growth of the city • Opportunities created through urban change • **Social and economic:** Culture, recreation, entertainment, employment, integrated transport • Environmental: Urban greening • Challenges created by urban change • **Social and economic**: deprivation, inequalities in housing, education, health, employment • **Environmental:** Dereliction, building on brownfield and greenfield, waste disposal • Urban sprawl and the impact on the rural/urban fringe and commuter settlements Example of an urban regeneration project to show: • Why the area needed regeneration • The main features of the project
Features of urban sustainable living • Water recycling and energy conversion • Waste recycling • Creating green space • How transport strategies and used to reduce traffic congestion.

GCSE

Spanish

This end of year assessment will test your understanding of **everything you have been taught during Year 10.**
You should revise all topics, vocabulary and grammar from this year, and be prepared to apply your knowledge to unfamiliar questions, as you would in a full GCSE style exam.
Marks are awarded for clear communication and exam skills, not just perfect accuracy.

You should revise **all vocabulary and skills** linked to the following topics:

- Mobile Technology
- Healthy Living
- Relationships, Family and Friends
- Holidays
- Celebrity Culture
- Grammar and language to revise
- Verbs and time frames
- Opinions and reasons
- Core grammar
- Skills to practise

You should practise:

- understanding longer listening and reading texts
- dealing confidently with unfamiliar vocabulary
- translating into and out of Spanish
- writing extended answers with opinions and reasons
- checking your work for verb endings and agreement

GCSE Computer Science

Paper 1

- Data: Units of data capacity, binary states and powers of 2, ASCII, hexadecimal, *lossy compression, expressions for bitmap file size*, binary shifts, converting between binary - denary - hexadecimal including two's complement.
- Computers: Storage media, volatile/non-volatile storage, interpreters and high/low level programming language characteristics, robust code, virtual memory, utility software, von Neumann architecture (CPU & main-memory).
- Issues & impact: Computer Misuse Act, Acceptable Use Policies, malware characteristics.
- Networks: Ethical hacking.
- Computational thinking: Truth tables for three inputs, iteration through 2D data structures, trace tables, linear search & *bubble sort* ~ best/worst-case scenarios, use of high/low-level programming languages in context of built-in peripheral devices and application software.

Paper 2

- Correcting syntax errors, arithmetic operators, importing libraries, casting, repetition, use of the range() function, ASCII table *and the use of ord() and chr()*, writing CSV data to a file, iteration through a 2D data structure, creating and calling subprograms & use of arguments and parameters.

GCSE

Religious Education

Christianity: Beliefs & Teachings

- ☐ Nature of God
- ☐ Creation
- ☐ Jesus Christ
- ☐ Salvation
- ☐ The Afterlife

Christianity: Practices

- ☐ Worship
- ☐ Pilgrimage
- ☐ Celebrations (Festivals)
- ☐ Christianity in Britain
- ☐ The Worldwide Church

Islam: Beliefs & Teachings

- ☐ What is Islam
- ☐ Sources of authority in Islam
- ☐ The Nature of God (Allah)
- ☐ Prophethood (Risalah)
- ☐ Early Islam
- ☐ Angels (Malaikah)
- ☐ Islamic Community
- ☐ The Afterlife (Akhirah)

Islam: Practices

- ☐ The Five Pillars of Islam
- ☐ Jihad
- ☐ Festivals
- ☐ Shi'a Practices
- ☐ Islam in Britain

GCSE Business Studies

Topic 1.1 Enterprise and entrepreneurship

- ☐ The Dynamic Nature of Business
- ☐ Risk and Reward
- ☐ Enterprise and Entrepreneurs

Topic 1.2 Spotting a business opportunity

- ☐ Customer Needs
- ☐ Market Research
- ☐ Market Segmentation
- ☐ The Competitive Environment

Topic 1.3 Putting a business idea into practice

- ☐ Aims and Objectives
- ☐ Revenues, Costs, and Profits
- ☐ Cash and Cash Flow
- ☐ Sources of Finance

Topic 1.4 Making the business effective

- ☐ Business Ownership
- ☐ Business Location
- ☐ The Marketing Mix
- ☐ Business Plans

Topic 1.5 Understanding external influences on business

- ☐ Stakeholders
- ☐ Technology
- ☐ Legislation
- ☐ The Economy
- ☐ External Influences

GCSE

Catering

1.1.1 Hospitality and catering providers

- Commercial and non-commercial residential and non-residential establishments
- Food service
- Residential service
- Hotel and guest house standards (star ratings)
- Restaurant standards

1.1.2 Working in the hospitality and catering industry

- Front of house, housekeeping
- Kitchen brigade
- Management
- Personal attributes
- Qualifications and experience

1.1.3 Working conditions in the hospitality and catering industry

- Employment contracts and working hours
- Remuneration and benefits
- The fluctuating needs of the industry

1.1.4 Contributing factors to the success of hospitality and catering provision

- Basic costs
- Calculating gross profit and net profit
- How the economy can impact business
- Environmental needs and impacts within the industry
- The impact of new technology
- The impact of different types of media

1.2.1 The operation of the front and back of the house

- Workflow of the front of house and catering kitchen
- Equipment and materials
- Documentation and administration requirements in a catering kitchen
- Typical dress code requirements

1.2.2 Customer requirements in hospitality and catering

- Customer needs
- Customer rights and inclusion
- Equality

1.2.3 Hospitality and catering provision to meet specific requirements

- Customer requirements/needs, expectations, and demographics

1.3.1 Health and safety in hospitality and catering provision

- Responsibility for the personal safety in the workplace of employers and employees, and the law
- Risks to health and security

1.3.2 Food safety

- The HACCP system

1.4.1 Food-related causes of ill health

- Causes of food poisoning
- Allergies
- Food intolerance
- Harmful chemicals in food
- Food labelling laws and safety regulations
- Symptoms of food poisoning

1.4.3 Preventative control measures of food-induced ill health

- Cross-contamination
- Correct temperature in delivery, storage, preparation and service

1.4.4 The Environmental Health Officer (EHO)

2.1.1 Understanding the importance of nutrition and the impact of cooking methods on nutritional value

- The macronutrients
- The micronutrients
- Different life-stages
- Special dietary needs

Revision Gold!

Remember, the best way to use past papers to revise is to first try the questions, then look at the answers to compare what you have written, and improve your answers. Ask your teacher to look at your answers if you'd like!

Subject	Key past paper and revision links	QR Code 1	QR Code 2
Maths	1) GCSE Past Papers | 1st Class Maths - https://www.1stclassmaths.com/gcse-exam-papers 2) Maths Genie • Learn GCSE Maths for Free https://www.mathsgenie.co.uk/gcse.php Sparx Maths		
English Language	1) AQA GCSE English Language Exam Questions & Answers By Topic https://www.savemyexams.com/gcse/english-language/aqa/17/topic-questions/ 2) AQA GCSE English Language Past Papers [PDFs & Mark Schemes] https://www.savemyexams.com/gcse/english-language/aqa/past-papers/#Specimen-Papers		
English Literature	1) AQA GCSE English Literature Exam Questions & Answers By Topic https://www.savemyexams.com/gcse/english-literature/aqa/17/topic-questions/ 2) AQA GCSE English Literature Past Papers [PDFs & Mark Schemes] https://www.savemyexams.com/gcse/english-literature/aqa/past-papers/#Specimen-Papers		
Combined Science	1) AQA GCSE Science Past Papers - Revision Science https://revisionscience.com/gcse-revision/science/science-gcse-past-papers/aqa-gcse-science-past-papers 2) Tassomai		
Separate Science	1) AQA GCSE Past Papers | Assessment and Qualifications Alliance https://gcsepastpapers.co.uk/exam-board/aqa 2) Tassomai		
History	1) Edexcel (Pearson) GCSE History Past Papers [PDFs & Mark Schemes] https://www.savemyexams.com/gcse/history/edexcel/past-papers/ 2) GCSE History Revision Notes | Quick, Easy, and Effective Study https://www.savemyexams.com/gcse/history/revision-notes/		

Revision Gold!

Subject	Key past paper and revision links	QR Code 1	QR Code 2
Geography	1) AQA GCSE Geography Past Papers [PDFs & Mark Schemes] https://www.savemyexams.com/gcse/geography/aqa/past-papers/ 2) AQA GCSE Geography Exam Questions & Answers By Topic https://www.savemyexams.com/gcse/geography/aqa/18/topic-questions/		
Spanish	1) AQA GCSE Spanish Past Papers - Revision World https://revisionworld.com/gcse-revision/spanish/spanish-gcse-past-papers/aqa-gcse-spanish-past-papers 2) GCSE Spanish Revision | Complete Guide for AQA & Edexcel https://spanishgrammar.co.uk/gcse-spanish		
Religious Studies	1) Eduqas GCSE RS Past Papers - Revision World https://revisionworld.com/gcse-revision/rs-religious-studies/past-papers/eduqas-gcse-rs-past-papers 2) RS (Religious Studies) GCSE | Revision World https://revisionworld.com/gcse-revision/rs-religious-studies		
Business Studies	1) Edexcel GCSE Business Studies Past Papers - Revision World https://revisionworld.com/gcse-revision/business-studies/business-studies-gcse-past-papers/edexcel-gcse-business-studies-past-papers 2) Business GCSE Revision | Revision World https://revisionworld.com/gcse-revision/business-studies		
Computer Science	1) Edexcel GCSE Computer Science Past Papers - Revision World https://revisionworld.com/gcse-revision/ict/past-papers/edexcel-gcse-computer-science-past-papers 2) GCSE Computer Science - Edexcel - BBC Bitesize https://www.bbc.co.uk/bitesize/examspecs/zdqy7nb		

Revision Gold!

Subject	Key past paper and revision links	QR Code 1	QR Code 2
Catering	1) WJEC Level 1/2 Hospitality and Catering Past Papers | Tutorioo | Tutorioo https://www.tutorioo.com/resources/past-papers/wjec/level-1-2/hospitality-and-catering 2) My Revision Notes: WJEC Level 1/2 Vocational Award in Hospitality and Catering, Second Edition https://media.hachettelearning.com/media/medialibraries/hodder/samples/hospitality-and-catering/14-16/wjec-level-1-2-hospitality-and-catering/mrn-vocational-award-hospitality-and-catering-sample-pages-9781398361263.pdf		
Sports Studies	1) BTEC Tech Award (2022) Sport- Preparing for External Assessment https://www.youtube.com/watch?v=woJ-_JMljx8 2) Revision 2025: BTEC Tech Component 3 SPOTLIGHT Session https://www.youtube.com/watch?v=QFoRJjM0tVw		
Health and Social Care	1) Component 3 Exam paper in 15 mins | BTEC Tech Award Health & Social Care https://www.youtube.com/watch?v=WYdNyAnEcQc&list=PLp8BSCLLWBUA-4mj_vxoHdCkAQYth_PbR 2) BTEC 2022 COMPONENT 3 EXAM TECHNIQUES HEALTH AND SOCIAL CARE https://www.youtube.com/watch?v=uk1Afa_t3XE		