

Year 10 - Cycle Three

100% Book



Name: _____

Tutor group: _____



Paddington Academy

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Your 100% book and knowledge organisers

Knowledge organisers contain **critical** knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long-term.

Students remember 50% more when they test themselves after learning.

You must have this 100% book for every lesson – it is part of your equipment.

You must keep your 100% books (even after you have finished the cycle or the year).

How do I use my 100% book for self-quizzing?



1) Write today's date and the title from the knowledge organiser and underline with a ruler



2) Write out the keywords leaving two lines between each word



3) Cover the definitions apart from the first: read it, cover it, say it in your head, check it



4) If you got it right, move on and quiz yourself on the rest in your head, one by one



5) Cover up all the definitions and write them out from memory



6) Check your answers using green pen

- Tick any definitions which are correct
- Correct any definitions not completely correct



Correcting spelling, punctuation and grammar

Your work will be marked across all subjects to help you improve your literacy. This is the code that will be used.

Correcting your spelling, punctuation and grammar	
Sp + underlined word	The underlined word is spelt incorrectly. Look, cover, write then check. Do this at least three times so you spell it correctly.
A circle around part of a word or a space	Your punctuation is incorrect, or something is missing (including capital letters).
? + wobbly line	You haven't explained your ideas clearly enough.
/	You need to start a new sentence here. Remember: full stop, capital letter.
//	You need to start a new paragraph here. Remember: new paragraphs for time, place, topic, person (TiPToP).
^	A word is missing where the arrow is pointing.

Year 10 Curriculum Overview

	Cycle 1		Cycle 2		Cycle 3	
Art & Design GCSE (Edexcel)	Investigating and exploring foundation skills in drawing, painting, printmaking and photography through portraiture	Cycle 1 Assessment - Week beginning 10th November	Developing personal ideas through in response to Art made about World War Two and the Syrian conflict	Cycle 2 Assessment - Week beginning 9th March	A contextual project unpicking the work of two artists: creating artist studies, a comparative essay and a personal response	Cycle 3 Assessment - Week beginning 22nd June
Business GCSE (AQA)	Business in the real world: ownership, planning and expansion Influences on Business: competition and legislation		Influences on Business continued. Business operations: production, quality management, etc.		Human Resources: recruitment and selection, motivation and training of employees	
Economics GCSE (OCR)	The basic economic problem, opportunity cost, private and public sectors, supply and demand, elasticity, competitive markets		Monopoly and oligopoly, labour markets, financial markets, market failure		Introduction to macroeconomics, the governments' economic objectives. Macroeconomic policies	
English (Lang & Lit) GCSE (AQA)	JB Priestley's 'An Inspector Calls'		William Shakespeare's 'Macbeth'		Introduction to English Language Paper 1	
Enterprise BTEC (Pearson)	Component 1 Part 1: internally assessed unit Characteristics of successful enterprises		Component 3: external exam preparation Finance and promotion		Component 1 Part 2: researching, planning and pitching a business idea	
French GCSE (AQA)	Me, relationships, where I live and free time		Technology and free time		School, future plans, health and environment	
Geography GCSE (Edexcel)	Global Development : How a country's development level changes and issues arising from this		Weather and Climate: – tropical storms, drought and UK weather Changing Cities & urban fieldwork – issues facing modern cities including London		Changing Landscapes & Rivers fieldwork – looking at the ways UK landscapes change and investigating this in fieldwork	
Health & Social Care BTEC (Pearson)	Component 1: Human Lifespan Development Internally assessed unit		The role of different sources of support to help people cope with life events		Component 2 Health and Social Care Services and Values Coursework (internally assessed) 20 %	
History GCSE (WJEC)	The development of the USA 1929-2000: Impact of the Great Depression, economic recovery after World War II, Civil Rights, Political change, social change, Cold War, search for world peace since 1970		Germany in Transition 1920-1939: Impact of the Great Depression, economic recovery, rise of the Nazis, Hitler's consolidation of power, terror and persuasion, social change, Hitler's foreign policy		The Elizabethan Age: Governance, Lifestyles of the rich and poor, Catholic threats, Puritan threats, entertainment, Spanish Armada, religious change	

Year 10 Curriculum Overview (cont.)

	Cycle 1		Cycle 2		Cycle 3	
Mathematics GCSE (Edexcel)	Graphs	Cycle 1 Assessment - Week beginning 10th November	Sequences, simultaneous equations, probability, percentages and ratio	Cycle 2 Assessment - Week beginning 9th March	Proportion, indices and surds , rounding and bounds , averages and data (higher in bold)	Cycle 3 Assessment - Week beginning 22nd June
Media BTEC (Pearson)	Introduction to Media audiences and industries, Component 1 – Exploring Media products part 1		Component 1 – Exploring Media products part 2: Analysing practical methods		Component 2: Developing Digital Media Production Skills part 1: Experimentation	
Media GCSE (AQA)	Introduction to Media theory: Audience, Narrative and Representations, Magazine and Newspaper industries		Television Industries and audiences 1963-2019, The film industry – Blockbusters and independent cinema		Interactive, social, participatory media – Video games and social media	
PE GCSE (Edexcel)	Theory: Skeletal and Muscular System Practical: Badminton		Theory: Body System and Physical Training Practical: Basketball		Theory: Physical Training and Movement Analysis Practical: Athletics and Fitness	
Religious Studies GCSE (WJEC)	Issues of Life and Death Issues of Good and Evil		Issues of Human Rights/ Revision		Revision	
Science GCSE – Combined (AQA)	Cells, Organisation of Living things, Atoms and the Periodic Table, Energy		Bonding, Electricity, Infection and Disease, Quantitative Chemistry, Energy Changes in Reactions		Matter, Radioactivity, Bioenergetics, Chemical Reactions	
Science GCSE – Triple (AQA)	Bioenergetics, Chemical Reactions, Quantitative Chemistry, Energy Change in Reactions, Radioactivity		Homeostasis, Forces		Rates of Reaction, Waves	
Spanish (AQA)	School, your studies and free time		Where I live and technology		Relationships and health	
Sport BTEC (Pearson)	Unit 1: Fitness for Sport and Exercise (External Onscreen Exam unit)		Unit 1: Fitness for Sport and Exercise (External Onscreen Exam unit) Unit 2: Practical Performance in Sport		Unit 2: Practical Performance in Sport (Football/Basketball and Table Tennis)	
Travel & Tourism BTEC (Pearson)	Organisations and destinations – how are travel and tourism organisations structured and what attracts people to different holidays?		Influences on global travel and tourism – how can we become more sustainable with tourism and how are destinations managed sustainably?		Customer needs in travel and tourism – trends, and market research	

Year 10 - Art & Design - Cycle Three

A Art Movements		
1	British impressionism	Work by artists in Britain in the late nineteenth-century, influenced by the French impressionists
2	Abstract expressionism	Abstract art in 1940s and 1950s America characterised by gestural brush-strokes or mark-making
3	Activist art	Art that is grounded in the act of 'doing' and addresses political or social issues
4	Analytical cubism	Early phase of cubism (1908–12) that shows multiple viewpoints and overlapping 'planes' in one image
5	Art Deco	Design style (1920s and 1930s) in furniture, decorative arts and architecture, characterised by its geometric shapes
6	Art Nouveau	Style in architecture and design that emerged in the 1890; characterised by flowing organic shapes based on plant forms
7	Arts and crafts	Design movement started by William Morris in 1861 which aimed to improve the quality of design and make it available to the widest possible audience
8	Bauhaus	A revolutionary school of art, architecture and design established by Walter Gropius at Weimar in Germany in 1919
9	Brutalism	An architectural style of the 1950s and 1960s characterised by simple, block-like forms and raw concrete construction
10	Classicism	Art that makes reference to ancient Greek or Roman style

B Art Movements		
1	Conceptual art	When the idea behind the work is more important than the finished art object
2	Contemporary art	Art of the present day and of the recent past that is innovative or avant-garde in nature
3	Dada	Movement formed during the First World War in negative reaction to the horrors of the war
4	De Stijl	Collection of Dutch abstract artists who promoted a style based on a geometry of horizontals and verticals
5	Expressionism	When reality is distorted to make it expressive of the artist's inner feelings or ideas

6	Fauvism	The work produced by a group of artists (1905 to 1910), characterised by strong colours and fierce brushwork
7	Futurism	Italian art movement that aimed to capture the dynamism and energy of the modern world
8	German expressionism	Movement that emphasised the artist's inner feelings over replicating reality, characterised by simplified shapes, bright colours and gestural marks
9	Hyper-realism	A photo-like realism in sculpture and painting
10	Illusionism	Painting style that creates the illusion of a real object or scene in such a realistic way that they seem alive

C Art Movements		
1	Impressionism	Landscapes and scenes of everyday life painted spontaneously and on the spot
2	Minimalism	Extreme form of abstract art where artworks are composed of simple geometric shapes
3	Modernism	Artworks that reflect the realities and hopes of modern societies
4	Op art	Development of painting that uses geometric forms to create optical illusions
5	Pop art	American and British art from the 1960s that drew inspiration from sources in popular and commercial culture
6	Postmodernism	A reaction against the ideas and values of modernism
7	Renaissance	French word meaning rebirth, now used to describe the revival of Italian art from around 1400
8	Romanticism	Movement in art showing an interest in human expression of personal feelings and interest in the natural world
9	Surrealism	Movement that explored the workings of the mind, supporting the irrational and poetic
10	Young British Artists (YBAS)	Group of British artists who exhibited art together in 1988 and became known for their openness to materials and processes, shock tactics and entrepreneurial attitude

Year 10 - Art & Design - Cycle Three

D	Key Terms	
1	Aesthetics	Philosophy that is concerned with the nature of beauty and taste
2	Allegory	When the subject of the artwork is used to symbolise a deeper moral or spiritual meaning
3	Archive	A store of documents or artefacts of a purely documentary nature
4	Appropriation	The practice of artists using pre-existing objects or images in their art with little transformation of the original
5	Biomorphic	Abstract forms or images that refer to living forms such as plants and the human body
6	Chiaroscuro	Extreme contrast between light and dark tones for dramatic effect
7	Curator	Someone employed by a museum or gallery to manage a collection of artworks or artefacts
8	Entropy	The inevitable and steady deterioration of a system or society
9	Flâneur	French term meaning 'stroller' used to identify an observer of modern urban life

E	Key Terms	
1	Found object	A natural or man-made object that is found by an artist and kept because of an interest the artist sees in it
2	Fresco	Mural painting technique that involves painting with water-based paint directly onto wet plaster
3	Gestural	The application of paint in free sweeping gestures with a brush
4	Iconography	The imagery within artwork
5	Impasto	Impasto refers to an area of thick paint or texture in a painting

6	Kitcsh	Used to describe cheap, vulgar and sentimental forms of popular and commercial culture
7	Maquette	Model for a larger piece of sculpture, created in order to visualise how it might look
8	Memento mori	A piece of artwork designed to remind the viewer of their mortality, and of the shortness and fragility of human life
9	Montage	An assembly of images that relate to each other in some way to create a single work or part of a work of art

F	Key Terms	
1	Motif	A recurring fragment, theme or pattern that appears in a work of art
2	Picture plane	Refers to the physical surface of the painting
3	Plein air	Meaning 'outdoors', and refers to the practice of painting outside
4	Primitivism	Fascination of early modern European artists with tribal art from Africa
5	Realism	Mid-nineteenth century art movement characterised by subjects painted from everyday life in a naturalistic manner
6	Replica	A copy of a work of art that appears identical to the original
7	Sublime	Art that refers to a greatness beyond all possibility of calculation, measurement or imitation
8	Symbolism	Art movement that prioritised the expression of an idea over the realistic description of the natural world
9	Trompe l'oeil	French phrase meaning 'deceives the eye', used to describe paintings that create the illusion of a real object or scene
10	Vanitas	Still life artwork which includes various symbolic objects that remind the viewer of their mortality

Year 10 - GCSE Business - Cycle Three

A	Key Words	
1	Organisational structure	The way a business arranges itself to carry out its activities
2	Span of Control	The number of employees managed directly by another employee
3	Delayering	The removal of one or more levels of hierarchy from the business's organisational structure
4	Delegation	Passing down of authority to more junior employees
5	Centralisation	When a small number of senior managers in a business make all the decisions
6	Diversification	When a business starts selling new products in new markets
7	External recruitment	Filling a job vacancy from any suitable person not already employed by the business
8	Job description	States information about the duties and tasks that make up a particular job
9	Person specification	Sets out the qualifications and skills required by an employee to fill a particular job
10	Assessment centres	This is where assessments are taken by potential candidates in order for the business to identify suitable candidates
11	Productivity	The quantity of goods or services produced by an employee over a period of time, such as one year
13	Full-time	When someone works a number of hours equal to the normal working week, usually 35-40hrs
14	Part-time	When someone works less than a normal number of working hours per week, less than 35hrs
15	Contract of employment	A legal document stating the hours of work, rates of pay, and other conditions under which a person is employed

B	Key Words	
1	Job enrichment	Designing a job to give more interesting and challenging tasks
2	Piece work	When workers are paid according to how much they produce
3	National Living Wage	An hourly rate of pay which is set by the government; all employees above a certain age must receive at least this rate of pay
4	Training	Is a range of activities giving employees job-related skills and knowledge
5	Induction training	The training given to employees when they start a new job
6	Consumer	Someone who uses goods and services produced by businesses
7	Segmentation	When a market is divided into different groups of needs and wants
8	Market research	The process of gathering, analysing and processing data relevant to marketing decisions
9	Target market	When a business targets particular groups of people it wants to focus on
10	Qualitative data	Involves views and opinions but does not provide statistically reliable information
11	Market growth formula	Market growth = change in the market size / original market size X 100
12	Market share formula	Market share = sales of the product / total market sales X 100
13	Price	The amount charged by the business for its product
14	Retailers	Shops that sell direct to the customer
15	E-commerce	Online selling, e.g. Amazon

Year 10 - English - Cycle Three

A	Key Terms	
1	Oppression (n)	Prolonged cruel or unjust treatment or exercise of authority
2	Interminable (adj)	Endless or apparently endless
3	Narcissistic (adj)	Having an excessive admiration of oneself and one's physical appearance
4	Authoritative (adj)	Able to be trusted as being accurate, true or reliable
5	Transient (adj)	Lasting only for a short time; not permanent
6	Imperceptible (adj)	Slight, gradual, or subtle
7	Sublime (adj)	Of great beauty and giving an impressive sense of power; inspires awe
8	Perfidious (adj)	Untrustworthy
9	Perilous (adj)	Full of danger or risk
10	Futile (adj)	Pointless
11	Barbaric (adj)	Savagely cruel or primitive; unsophisticated

12	Fruitless (adj)	Unproductive or useless
13	Injudicious (adj)	Showing very poor judgement; unwise
14	Erroneous (adj)	Something wrong or incorrect
15	Inexorable (adj)	Impossible to stop or prevent; relentless
16	Unrelenting (adj)	Not giving in
17	Unwavering (adj)	Steady or determined
18	Desensitised (v)	Less likely to feel distress when shown scenes of cruelty or suffering because you've seen too many
19	Repression (n)	The holding back or pushing down a feeling or idea
20	Exile (n)	Being forced to leave your native country, usually for political reasons or punishment
21	Displacement (n)	The action of moving something from its place or position
22	Fleeting (adj)	Lasting for a very short time
23	Ambiguity (n)	Being open to more than one interpretation
24	Delicate (adj)	Easily broken or damaged; fragile

Year 10 - Business BTEC - Cycle Three

A	Key Words	
1	Calculating break-even	Fixed costs / selling price per unit – variable cost per unit
2	Margin of safety	The amount of sales above the break-even point an enterprise can afford to lose before they start making a loss
3	Surcharge	A customer must pay a small fee for every transaction via credit card
4	Direct Debit	An agreement made with the bank allowing a customer to make regular payments, e.g. phone bill
5	Revenue	The income an enterprise receives through selling goods and services
6	Calculating revenue	Revenue = number of sales x price per unit
7	Selling assets	Raising money by selling items of value, either personal assets, e.g. jewellery, or business assets, e.g. machinery
8	Start-up costs	The money that is spent to start a new enterprise, e.g. equipment
9	Running costs	These are the day-to-day costs incurred in the running of an enterprise and can be split into fixed and variable costs
10	Fixed costs	Costs that have to be paid no matter how many goods are produced or sold, e.g. rent
11	Variable costs	Costs that are directly related to the number of goods sold or produced, and/or costs that change with output
12	Turnover	The total revenue an enterprise receives in a given financial period: price per unit x quantity sold
13	Cost of sales	The total of all costs used to create a good or service
14	Expenses	All the indirect costs of the business; this does not include the costs associated with making the product, e.g. bills, wages
15	Gross profit	Gross profit = turnover – cost of sales

B	Key Words	
1	Net profit	Net profit = gross profit – expenditure
2	Assets	Something of value that an enterprise owns, e.g. machinery, stock, van
3	Fixed assets	An asset that will not need to be changed or replaced in the short-term and is likely to last longer than one year, e.g. machinery
4	Current assets	An asset that is likely to run out and need replacing in the short-term, e.g. stock and cash
5	Liabilities	The legal responsibility of paying back debts you owe
6	Net current assets	Net current assets = current assets – current liabilities
7	Capital	The money you invest to start up or grow an enterprise; this can come from a loan or retained profit
8	Retained profit	This is a portion of an enterprise's profit that is kept for future use
9	Solvency	The ability of an enterprise to pay back debts and financial obligations
10	Cash balance	Cash inflow – cash outflow
11	Profit margin	The difference between the amount an enterprise can sell goods and services for, and what it costs to produce them
12	Liquidity	The ability to turn an asset into cash in order to pay liabilities; current assets have higher liquidity levels than fixed assets
13	Gross profit margin	Helps an enterprise to measure its gross profit as a percentage of its sales: $GPM (\%) = (\text{gross profit} / \text{sales revenue}) \times 100$
14	Net profit margin	Helps an enterprise to measure its net profit as a percentage of its sales: $NPM (\%) = (\text{net profit} / \text{sales revenue}) \times 100$
15	Break-even	When an enterprise has made enough money through sales to cover the cost of production; it is the point when costs meet revenue

Year 10 - French - Cycle Three

A	Verbs and Phrases	
1	Lutter pour	To fight for
2	Lutter contre	To fight against
3	Aider les gens	To help people
4	Nettoyer	To clean
5	Réduire	To reduce
6	Pouvoir	To be able to
7	Mettre	To put
8	Prendre	To take
9	Tomber	To fall
10	Courir	To run
11	S'entraîner	To train
12	Éviter	To avoid
13	Marcher	To walk
14	Fumer	To smoke
15	Devenir	To become
16	Se drogue	To take drugs
17	Si je reussi	If I succeed
18	Je ferai	I will do
19	J'irai	I will go
20	Je serai	I will be
21	Il y aura	There will be

B	Vocabulary	
1	Les inondations	Floods
2	La sécheresse	Drought
3	Les incendies	Fires
4	Le réchauffement de la planète	Global warming
5	Les embouteillages	Traffic jams
6	L'effet de serre	The greenhouse effect
7	La circulation	Traffic
8	Du bénévolat	Volunteering
9	Un stage	Work experience
10	Le Coeur	The heart
11	La tête	The head
12	Le cou	The neck
13	L'épaule	The shoulder
14	Le ventre	The stomach
15	Les pieds	The feet
16	Des sucreries	Sugary foods
17	Des matières grasses	Fatty foods
18	Une ordonnance	A prescription
19	Un rendez vous	An appointment
20	La maladie	Illness
21	Les poumons	The lungs

Year 10 - Geography - Changing UK landscapes (2.1) - Cycle Three

A Geographical Landscapes		
1	Sedimentary	Rocks formed in layers called beds
2	Igneous	Rocks made from cooled volcanic material
3	Metamorphic	Rocks formed by great heat and pressure
4	Tectonics	Activity from the movement of Earth's plates
5	Tees-Exe line	Division between two geological parts of the UK
6	Glacial erosion	Process where landforms are made by the creation and melting of glaciers

B Landscape Processes		
1	Weathering	Breaking down of rocks <i>in situ</i>
2	Erosion	Gradual destruction of rocks
3	Deposition	Dumping of sediment by slow-flowing water
4	Mass movement	Downhill movement of material under the influence of gravity
5	Abrasion	When rocks scrape something away
6	Attrition	Rocks knocking against each other
7	Hydraulic action	Water forcing air into gaps, making them bigger
8	Solution	Water dissolving certain rocks
9	Transport	Ways that sediment is moved around

C Coastal Landscapes		
1	Longshore drift	Movement of sediment across a beach
2	Destructive wave	A wave which erodes a cliff with high energy
3	Constructive wave	A wave which deposits sediment, building a beach
4	Seasonality	The differences between the seasons
5	Wave-cut platform	A platform left behind after a cliff erodes
6	Prevailing wind	Main wind direction in a place

D River Landscapes		
1	River banks	Sides of the river channel
2	River valley	Low and flat area between hills where rivers run
3	Drainage basin	The area drained by one river
4	Tributary	A smaller river feeding into another
5	Oxbow lake	A u-shaped lake left after meander cuts off
6	Levee	A raised bank of sediment along river banks
7	Surface run-off	Water moving across surface of land to a river
8	Channelisation	Straightening and deepening of a river

Year 10 - GCSE Geography - Changing Cities (2.1) - Cycle Three

A Global Development		
1	Urban areas	Built-up areas like towns and cities
2	Urbanisation	The growth of towns and cities
3	Rural	The countryside
4	Industrialisation	The change from an agricultural society to one with an economy based on manufacturing and services
5	Natural increase	When birth rates outnumber death rates, causing population to increase
6	Shanty town	High density, low quality, often illegal housing
7	Population density	How many people live in an area (per m ²)

B Locations and Structure		
1	Site	The physical characteristics of a place
2	Situation	Where a place is located in relation to other places
3	Central Business District	Mainly shops, offices and very old buildings
4	Inner-city	Mainly high-density housing and flats from 1970s, like Sparkbrook
5	Suburbs	Mainly low density semi-detached houses from 1960s
6	Urban fringe	More recently developed, with out-of-town shopping centres

C Birmingham & Mexico City		
1	Terraced housing	Houses in a row which share walls
2	Suburbanisation	The growth of the suburbs in the 1920s
3	Counter-urbanisation	Leaving the inner-city due to low QOL
4	Re-urbanisation	Moving back into the city centre after regeneration
5	Regeneration	The process of improving an area
6	Deindustrialisation	The closure of industry in an area
7	Ring road	A road which circles a city, e.g. A4540
8	Deprivation	A lack of basic materials needed for a decent quality of life
9	Retail	To do with shopping
10	Decentralisation	The movement of shops, offices and industry away from the city centre
11	Periférico	Area of slums in Mexico City
12	Cultivada Ciudad	Project teaching children about gardens
13	Metrobus	Bus system with its own fast lane
14	Barter market	A system of exchanging waste for food vouchers

Year 10 - GCSE Geography - Fieldwork & Enquiry (3.1) - Cycle Three

A Research, Sampling and Methods		
1	Enquiry	The way geographers investigate something about the world
2	Methodology	The chosen plan of enquiry
3	Sample	The group of people or sites you choose to investigate
4	Stratified sample	Choosing people or sites based on pre-determined groups
5	Systematic sample	Choosing people or sites at equal intervals
6	Random sample	Selecting people or sites without bias
7	Representative	A sample which reflects the whole
8	Accurate	Evidence which is a true representation of reality
9	Positive correlation	As one variable increases, so does another
10	Continuous data	Data which has an infinite number of possible values
11	Discrete data	Data which exists in separate categories
12	Subjective	Based on opinion
13	Objective	Based on evidence

B Urban Fieldwork		
1	Correlation	A relationship between variables
2	Radar graph	A graph that looks like a spider's web
3	Environmental Quality Survey	A way of measuring the environment based on ranking categories
4	Choropleth map	Map using colour to show data

C Rivers Fieldwork		
1	Discharge	The volume of water flowing through a river channel
2	Cumecs (m ³ /s)	Measurement of discharge
3	Cross-sectional area	The 2D area found when "slicing" a 3D area
4	Catchment area	The area which is affected by something
5	Flood risk map	Map produced by Environment Agency
6	Environmental Agency	Government agency managing and reducing flood risk
7	Hydroprop	A flow-meter that measures velocity
8	Cross profile	A "sliced" 2D view of a river's channel and valley
9	GIS	Map with layers of data

Year 10 - History - Elizabeth - Cycle Three

A Elizabethan Government		
1	Coronation	A ceremony where the new monarch is crowned as king or queen
2	Privy Council	A small group of advisors chosen by Elizabeth to support her in the running of the country
3	Royal progresses	Tours of the countryside that allowed the Queen to visit members of the nobility and show herself to the people
4	Nobility	The highest social class who owned land and had titles such as Duke and Earl
5	Patronage	A system used by the Queen to reward loyal supporters with land and titles
6	Factionalism	The rivalry between different members of the Royal Court
7	Royal court	The place where the Queen would invite people of importance to stay, feast, and build relations with the Queen
8	Courtier	A person who attends the Royal Court
9	Local government	The use of local officials to help keep control of different parts of the country
10	Lord lieutenant	A wealthy landowner who was in charge of other local officials and would keep the Queen informed about the county they were responsible for
11	Justices of the peace	Unpaid local officials numbering 30-60 per county who would maintain law and order in their local area and report to the Lord Lieutenant
12	Parliament	A group of high ranking people whose role was to raise taxes and pass Acts of Parliament (laws)

B Lifestyles of the Rich and Poor		
1	Hierarchy	A system of status with a small group of wealthy nobles and landowners at the top and a large group of landless and poor labourers at the bottom
2	Gentry	Middle class landowners who did not have titles but whose numbers rose during Elizabeth's reign
3	Vagrant	The state of being homeless without regular income
4	Vagabond	Someone who wanders from place to place without a home or income
5	Poor Laws	Several Acts of Parliament that were passed during Elizabeth's reign to deal with issues of poverty and vagrancy

C Popular Entertainment		
1	Bear / bull baiting	A type of lower class sport in which dogs would attack bears or bulls in an area, and people would bet on which animal would win
2	Hunting	A type of upper class sport in which animals such as deer would be caught and killed by men on horseback
3	Strolling players / bands	Groups of actors that would tour the countryside and put on performances in tents or in the streets
4	Theatre companies	Groups of actors who were supported financially by wealthy noblemen with some performing at the Royal Court
5	Theatres	Purpose-built buildings where plays could be performed

Year 10 - History - Elizabeth - Cycle Three

D	The Religious Settlement	
1	Catholics	Christians who supported the authority of the Pope in Rome
2	Protestants	Christians who began to challenge the authority of the Pope and seek reform within the church during the early 1500s
3	Puritans	Strict Protestants who emerged in the mid 1500s who rejected Catholicism and the authority of the Pope, and wanted society to become more Godly
4	Religious settlement	Elizabeth's decision about the religious doctrine in England
5	Clergy	The body of people involved in the Christian church who perform different religious duties
6	Act of Supremacy 1559	The law that established Elizabeth as Supreme Governor of the Church of England
7	Act of Uniformity 1559	The law that set out the expectations for the appearance of churches and the prayer book that should be used
8	The Middle Way	The term used to describe Elizabeth's religious settlement as being a compromise between Protestant and Catholic views
9	Royal injunctions 1559	A set of instructions provided to the clergy to establish a uniformity for worship and behaviour
10	Archbishop	The head bishop responsible for other bishops
11	Church of England	The official name given to the church of England with the monarch as Supreme Governor

E	The Catholic Threat	
1	Toleration	Allowing something to happen even if it is not agreed to
2	Mary, Queen of Scots	The Catholic Queen of Scotland who fled to England in 1568 and inspired rebellion from English Catholics
3	Recusants	Catholics who refused to attend the church services of the Church of England
4	Jesuits	Priests of the Society of Jesus which was set up to support the Pope's fight against the Protestant Reformation
5	Philip II	The Catholic King of Spain who attacked England in 1588
6	Excommunication 1570	The formal exclusion, by the Pope, of Elizabeth as a member of the Catholic church
7	Papal Bull	The document that details an excommunication
8	Ridolfi Plot 1571	A Catholic plot by Robert Ridolfi to overthrow Elizabeth and replace her with Mary, Queen of Scots
9	Throckmorton Plot 1583	A Catholic plot by Francis Throckmorton to overthrow Elizabeth with the support of Spain
10	Babington Plot 1586	The final Catholic plot against Elizabeth in which Mary, Queen of Scots was proven to be involved through the discovery of her secret letters

Year 10 - History - Elizabeth - Cycle Three

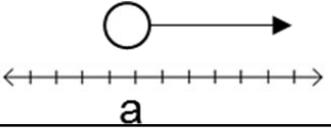
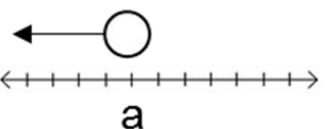
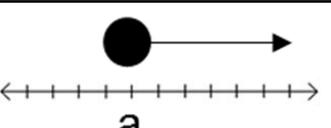
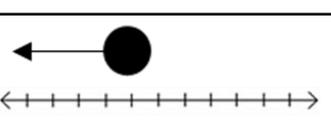
F	The Spanish Armada	
1	Armada	The Spanish word for a fleet of warships
2	Netherlands	A country north of France that was controlled by Catholic Spain but where Protestantism was spreading in the 1560s
3	Dutch rebels	A group of people from the Netherlands who rebelled against Spanish control
4	Privateers	Private sea men that had special permission from the monarch to attack other country's ships
5	Francis Drake	An English privateer who led attacks on Spanish ships during the 1570s
6	English Channel	The waters between the south of England and the north of France
7	Calais	A port on the northern coast of France
8	Fireships	Small empty boats that are set on fire and sent towards enemy ships
9	Gravelines 1588	A famous battle during the attack of the Armada after which the Spanish ships sailed towards the North Sea into bad weather

G	The Puritan Threat	
1	Puritans	The general term for very strict Protestants
2	Moderate Puritans	Puritans that accepted the religious settlement of 1559 but who hoped for further reform
3	Presbyterian	A type of Puritan who wanted more reform of the church and the abolition of bishops
4	Separatists	The strictest type of Puritan group who wanted to break away from the Church of England and create several independent churches across England
5	Vestment Controversy 1566	An event where several Puritan priests were dismissed after refusing to wear vestments (Catholic style robes)
6	John Stubbs	A puritan who had his hand cut off in 1579 after writing pamphlets that criticised the Queen
7	Marprelate Tracts 1588	A series of anonymous pamphlets that attacked the Church of England using foul language
8	Propheesyings	Meetings held by Puritans in the 1570s to discuss reforms they hoped to make
9	Act Against Seditious Sectaries 1593	A law passed by Parliament that said anyone accused of being a separatist could be executed

A: Index Laws

1	$a^m \times a^n$	a^{m+n}
2	$a^m \div a^n$	a^{m-n}
3	$(a^m)^n$	a^{mn}
4	a^0	1
5	a^{-1}	$\frac{1}{a}$
6	$a^{\frac{1}{2}}$	$\sqrt[2]{a}$
7	$a^{\frac{1}{3}}$	$\sqrt[3]{a}$

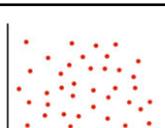
B: Inequalities

1		$x > a$, greater than a
2		$x < a$, less than a
3		$x \geq a$, greater than or equal to a
4		$x \leq a$, less than or equal to a

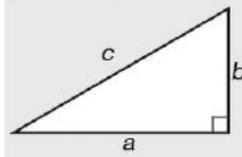
C: Averages

1	Mean	Add up all the numbers and divide by the number of numbers
2	Median	Put the numbers in order and find the middle number
3	Mode	The most common
4	Range	Largest number – smallest number

D: Scatter Graphs

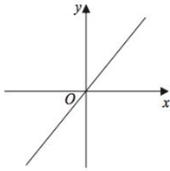
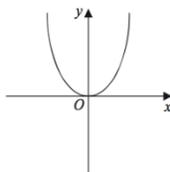
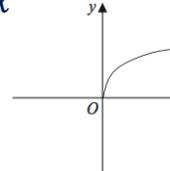
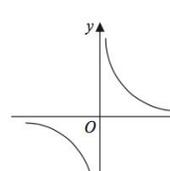
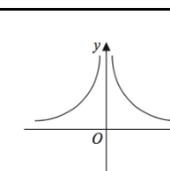
1	Positive correlation	
2	Negative correlation	
3	No correlation	

E: Pythagoras

1	Hypotenuse	The longest side, opposite the right angle, c in Pythagoras' Theorem
2	Labelled Triangle	
3	Pythagoras	$a^2 + b^2 = c^2$

Year 10 - Higher Maths - Cycle Three

A: Proportion

1	$y = kx$		y is directly proportional to x
2	$y = kx^2$		y is directly proportional to the square of x
3	$y = k\sqrt{x}$		y is directly proportional to the square root of x
4	$y = \frac{k}{x}$		y is inversely proportional to x
5	$y = \frac{k}{x^2}$		y is inversely proportional to the square of x

B: Surds

1	$\sqrt{a} \times \sqrt{b}$	$\sqrt{a \times b}$
2	$\sqrt{a} \times \sqrt{a}$	a
3	$\sqrt{\frac{a}{b}}$	$\frac{\sqrt{a}}{\sqrt{b}}$

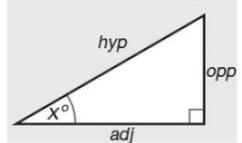
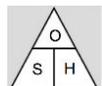
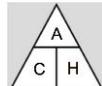
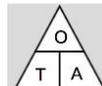
C: Bounds

1	Addition UB	UB + UB
2	Multiplication UB	UB \times UB
3	Subtraction UB	UB - LB
4	Division UB	UB \div LB
5	Addition LB	LB + LB
6	Multiplication LB	LB \times LB
7	Subtraction LB	LB - UB
8	Division LB	LB \div UB

D: Scatter Graphs

1	Positive correlation	
2	Negative correlation	
3	No correlation	

E: Trigonometry

1	Hypotenuse	The longest side, opposite the right angle
2	Adjacent	The side next to the given angle
3	Opposite	The side opposite the given angle
4	Labelled Triangle	
5		$\sin x = \frac{\text{Opposite}}{\text{Hypotenuse}}$
6		$\cos x = \frac{\text{Adjacent}}{\text{Hypotenuse}}$
7		$\tan x = \frac{\text{Opposite}}{\text{Adjacent}}$

F: Exact Values

1	Sin 0 =	0
2	Sin 30 =	$\frac{1}{2}$
3	Sin 45 =	$\frac{\sqrt{2}}{2}$
4	Sin 60 =	$\frac{\sqrt{3}}{2}$
5	Sin 90 =	1
6	Cos 0 =	1
7	Cos 30 =	$\frac{\sqrt{3}}{2}$
8	Cos 45 =	$\frac{\sqrt{2}}{2}$
9	Cos 60 =	$\frac{1}{2}$
10	Cos 90 =	0
11	Tan 0 =	0
12	Tan 30 =	$\frac{1}{\sqrt{3}}$
13	Tan 45 =	1
14	Tan 60 =	$\sqrt{3}$
15	Tan 90 =	∞

Year 10 - Media BTEC - Cycle Three

A	Cinematography	
1	High angle	Shot from above to make something seem smaller
2	Low angle	Shot from below to make something seem bigger
3	Hard light (low key)	Creates sharp shadows
4	Soft light (high key)	Creates less contrast between light and dark
5	Rule of thirds	Framing using a nine box grid
6	Framing	How things are visible
7	Centrally framed	Object / character is in the middle of the frame
8	Tightly framed	Object / character shown fills the screen
9	Pan	Horizontal movement
10	Tilt	Vertical movement
11	Tracking	Movement through space to follow a subject
12	Zoom / reverse zoom	A rapid movement to or from close up

B	Editing	
1	Straight cut	An instant change from one framing to another
2	Fade in	A dark screen that gradually brightens to a shot
3	Fade out	A shot that gradually darkens to a dark screen
4	Wipe	A line that passes over the screen, changing one shot to another
5	Dissolve	One shot gradually disappears whilst the next appears
6	Match cut	Creates a cut between two similar visuals
7	Cut away	A cut that draws attention to something particular
8	Crosscutting	Alternating between two narratives
9	Jump cut	Two shots of the same subject taken from only slightly different positions
10	Continuity editing	Editing style to make a film as realistic as possible
11	Eyeline match	Cutting from characters to what they see
12	180 degree rule	All shots of a single scene should be from the same 180° plane
13	Match on action	Cutting from one shot to another with matching action
14	Shot reverse shot	Showing a conversation from two characters' points of view, one after another

Year 10 - Media GCSE - Cycle Three

A	Film Industry	
1	Blockbuster	A film made with a high budget and recognisable stars
2	Star power	The appeal that a famous actor brings to a film
3	Director power	The appeal that a famous director brings to a film
4	Globalisation	The presence and influence of (film) companies internationally
5	Conglomerate	A large corporation that owns a large number of media companies
6	Vertical integration	When conglomerates own companies at more than one stage of the production cycle
7	Horizontal integration	When conglomerates own more than one company at the same stage of the production cycle
8	Independent cinema	Films made outside of the big Hollywood studios
9	BBFC	British Board of Film Classification – responsible for regulating film in the UK
10	Franchise	A collection of linked media products derived from single original source
11	Intertextuality	A feature of texts (media products) that borrow or quote from other texts
12	Product placement	Products or mentions of products embedded within a film

B	Film CSP Facts	
1	[DS] Director	Scott Derrickson
2	[DS] Production companies	Marvel Studios
3	[DS] Budget	\$165–236.6 million
4	[DS] Box office takings	\$677.7 million
5	[DS] Certificate (reasons)	12A, moderate fantasy violence, injury detail
6	[DS] Countries distributed to	52
7	[DS] Marketing tie ins	Yakult, Google Maps, Lamborghini, Merchandising
8	[IDB] Director	Ken Loach
9	[IDB] Production companies	Sixteen Films, Wild Bunch, Why Not Productions (BFI, BBC Films)
10	[IDB] Budget	Under £5 million
11	[IDB] Box office takings	\$15.8 million
12	[IDB] Certificate (reasons)	15, very strong language
13	[IDB] Countries distributed to	23
14	[IDB] Marketing tie ins	T-shirts

Year 10 - GCSE Sport Science Component 1 - Cycle Three

A Terminology		
1	Health	A state of complete emotional, physical and social wellbeing, and not merely the absence of disease and infirmity
2	Fitness	The ability to meet the demands of the environment
3	Exercise	A form of physical activity to maintain or improve health and / or physical fitness, it is not competitive sport
4	Performance	Performance means how well a task is completed
5	PARQ	Physical Activity Readiness Questionnaire

B Principles of Training		
1	F.I.T.T	<u>Frequency</u> – how often you train <u>Intensity</u> – how hard you train <u>Time</u> – how long you train for <u>Type</u> – what training method you use
2	Individual needs	Matching the training to the requirements of the individual person
3	Reversibility	Any improvements or changes that take place will be reversed when you stop training
4	Specificity	Matching the training to the particular requirements of an activity
5	Thresholds of training	To maximise the chance of fitness adaptations taking place, you should train within your target zone
6	Overtraining	Doing too much training, which can lead to injury and prevent improvement
7	Progressive overload	Making training steadily harder in order to gradually improve fitness

C Components of Fitness		
1	Muscular endurance	The ability to use voluntary muscles repeatedly without getting tired
2	Muscular strength	The amount of force a muscle can generate when it contracts to overcome resistance
3	Body composition	The ratio of fat to fat-free mass, e.g. vital organs, muscle, bone, in the body
4	Flexibility	The range of movement possible at a joint
5	Cardiovascular fitness	The ability to exercise the body for long periods of time without getting tired
6	Speed	How quickly a movement can be performed or a distance can be covered
7	Balance	The ability to maintain centre of mass over a base of support
8	Coordination	The ability to use two or more body parts at the same time
9	Power	Strength x speed
10	Agility	How quickly you can change the position of your body while keeping it under control
11	Reaction time	The time it takes to respond to a stimulus

Year 10 - GCSE Sport Science Component 1 - Cycle Three

A Methods of Training		
1	Continuous training	Training at a steady pace for a minimum of 30 minutes
2	Fartlek training	Running at different speeds or over different terrains
3	Interval training	Individual performs a work period followed by a rest or recovery period
4	Circuit training	A combination of six or more exercises performed with short rest periods between them
5	Plyometrics	Training that develops explosive power and strength
6	Weight / resistance training	Machines or free weights provide a load for the muscles to work against

B Fitness Classes		
1	Aerobics	Involves continuous activity for between 30 and 60 minutes
2	Body pump	Develops muscular endurance or strength by using barbells, with lots of repetitions
3	Pilates	Focuses on core muscles, that uses a resistance
4	Yoga	Develops flexibility, balance and strength that includes a relaxation phase
5	Spinning	Continuous cycling to music with an instructor to motivate

C Injuries		
1	Compound fracture	Where the broken bone causes the skin to break
2	Simple fracture	Where the bone does not break the skin
3	Greenstick fracture	Where the bone bends on one side and breaks on the other
4	Stress fracture	Where a small crack forms in the bone, caused through overuse
5	Concussion	A mild head / brain injury caused by a blow to the head, shaking the brain inside the skull
6	Dislocation	Where one of the bones at a joint comes out of place
7	Torn cartilage	An injury at a joint where small tears appear in the cartilage
8	Sprain	An injury at a joint where some of the fibres of the ligament are torn
9	Abrasion	Minor injuries to the skin such as a graze and a cut
10	Tennis elbow	A joint injury where the tendons are inflamed, with pain felt on the <u>outside</u> of the elbow
11	Golfer's elbow	A joint injury where the tendons are inflamed, with pain felt on the <u>inside</u> of the elbow
12	Strain	A stretch or tear in the muscle, also known as a pulled muscle

Year 10 - GCSE Sport Science Component 1 - Cycle Three

A RICE		
1	Rest	Do not use the injured area, allowing time to heal and to prevent further damage
2	Ice	The cold from the ice will help reduce swelling and pain
3	Compression	Apply a bandage to the area to help reduce swelling and provide support
4	Elevation	Keep the affected area raised to help reduce swelling

B Warm Up		
1	Pulse raiser	To raise the heart rate and speed up oxygen delivery
2	Stretching	Stretching the muscles and soft tissues you are about to use increases their elasticity and range of movement
3	Dynamic stretching	Stretching while moving
4	Static stretching	Stretching while not moving
5	Drills	An activity that sparks movement for the specific sport you are about to play

C Cool Down		
1	Light exercises	Exercises performed at a much lower intensity than you have just been working at
2	Stretching	Longer stretches to the muscles you have just been using

D Performance Enhancing Drugs (PEDs)		
1	Anabolic steroids	Taken to increase testosterone levels within the body
2	Beta blockers	They block the effects of adrenaline, so helping slow down the heart rate
3	Diuretics	Drugs that increase the rate of urination, so increasing the amount of fluid the body loses
4	Narcotic analgesics	Designed to relieve pain temporarily
5	Peptide hormones	Found naturally in the body and taken to increase the amount of EPO or HGH in the body to gain benefits
6	Erythropoietin (EPO)	Helps increase red blood cell production and oxygen delivery to the muscles
7	Human growth hormones (HGH)	Helps increase muscle mass and therefore strength
8	Stimulants	Taken to temporarily elevate mood
9	Blood doping	A process where performers have additional blood added to their bloodstream

Year 10 - Biology - Topic 4: Bioenergetics (Paper 1) - Cycle Three

1	Photosynthesis	An endothermic reaction that uses energy to change carbon dioxide and water into glucose and oxygen
2	Chloroplast	The part of the cell where photosynthesis occurs; contains a green pigment called <u>chlorophyll</u>
3	Chlorophyll	A green pigment found in chloroplasts that absorbs light energy
4	Photosynthesis equation	carbon dioxide + water $\xrightarrow{\text{light}}$ glucose + oxygen
5	Uses of glucose in plants	Respiration, making cellulose for cell walls, making amino acids, and making fats or starch for energy storage
6	Effect of light intensity	Increasing light intensity increases the rate of photosynthesis, until another factor limits the rate
7	Effect of carbon dioxide concentration	Increasing carbon dioxide concentration increases the rate of photosynthesis, until another factor limits the rate
8	Effect of temperature	Increasing temperature increases the rate of photosynthesis; above a certain temperature, the rate may decrease as enzymes are <u>denatured</u>
9	Sodium hydrogen carbonate	Used to increase the amount of carbon dioxide dissolved in water when investigating photosynthesis

10	Respiration	An exothermic reaction which transfers energy from glucose and happens in the mitochondria of every cell
11	Uses of energy	To build up large molecules from small molecules, movement, and keeping warm
12	Aerobic respiration	Respiration using oxygen glucose + oxygen \rightarrow carbon dioxide + water
13	Anaerobic respiration	The incomplete breakdown of glucose that takes place when there is not enough oxygen present In animals: Glucose \rightarrow Lactic Acid
14	Fermentation	Anaerobic respiration in plants and yeast: Glucose \rightarrow Ethanol + Carbon dioxide
15	Exercise	More muscle contraction, more energy needed, and a greater rate of respiration
16	Effects of exercise on the body	Increased heart rate and increased breathing rate
17	Oxygen debt	The amount of extra oxygen needed to break down the lactic acid that has built up during exercise
18	Metabolism	The sum of all the reactions in a cell or the body

Year 10 - Chemistry - Topic 4: Reactions (Paper 1) - Cycle Three

1	Acid	A substance which forms H ⁺ ions in aqueous solution with a pH of 0-6
2	Alkali	A substance which forms OH ⁻ ions when dissolved: these are soluble bases with a pH of 8-14
3	Neutral	A solution with a pH of 7
3	Neutralisation	A reaction between an acid and an alkali, making a salt and water
4	pH scale	Used to measure the acidity of a substance and from 0-14
5	Base	A substance that can neutralise an acid to make a salt and water
6	Salt	An ionic compound that can be formed by the neutralisation reaction of an acid and a base
7	Acids with metal oxides	Acid + metal oxide → salt + water
8	Acids with metal hydroxides	Acid + metal hydroxide → salt + water
9	Acids with metal carbonates	Acid + metal carbonate → salt + water + carbon dioxide
10	Acids with metals	Metal + acid → salt + hydrogen
11	Metals with water	Metal + water → metal hydroxide + hydrogen
12	Naming salts	Sulfuric acid makes sulfates, hydrochloric acid makes chlorides, nitric acid makes nitrates
13	Making a dry sample of an insoluble salt	Warm acid with a Bunsen burner, react with an insoluble base, filter, warm the solution in an evaporating basin to leave dry salt crystals

14	Reactivity series	A list of metals in order of their reactivity
15	Oxidation	Gain of oxygen
16	Reduction	Loss of oxygen
17	Reduction with carbon	Used to extract metals less reactive than carbon from their ores
18	Electrolysis	Splitting up an ionic compound using electricity and used to extract metals more reactive than carbon from their ores
19	Ionic compounds	Conduct electricity when molten or aqueous because the ions can move and carry a current
20	Electrolysis of pure molten ionic compound	Positive metal ions attracted to the negative electrode, negative non-metal ions attracted to the positive electrode
21	Cryolite	Added to molten aluminium oxide to reduce its melting point for electrolysis
22	Aqueous solution	When an ionic compound is dissolved in water
23	Electrolysis of aqueous solutions – negative electrode	If metal is more reactive than hydrogen, hydrogen gas will form. If metal is less reactive than hydrogen then the metal will form
24	Electrolysis of aqueous solutions – positive electrode	If solution contains halide ions (Cl ⁻ , Br ⁻ or I ⁻), then halogen gas forms; if solution does not contain a halide, then oxygen gas will form

Year 10 - Physics - Topic 3: Particles (Paper 1) - Cycle Three

1	Particle	All matter is made up of tiny particles
2	Solid	Particles are arranged in rows and are touching, with strong bonds between them
3	Liquid	Particles are randomly arranged and most are touching, with only some bonds between them so they can move
4	Gas	Particles are randomly arranged and don't touch, with no bonds so they can move freely
5	Properties of solids	Fixed shape and cannot flow; cannot be compressed (squashed)
6	Properties of liquids	They flow and take the shape of their container; they cannot be compressed
7	Properties of gases	They flow and completely fill their container; they can be compressed
8	Melting	Change of state from solid to liquid
9	Changes to particles when substances melt	Gain energy, arrangement becomes random, start to move around
10	Evaporation	Change of state from liquid to gas
11	Changes to particles when substances evaporate	Gain energy, become much further apart, start to move quickly in all directions
12	Condensation	Change of state from gas to liquid
13	Changes to particles when substances condense	Lose energy, become much closer together, bonds form between particles

14	Freezing	Change of state from liquid to solid
15	Changes to particles when substances freeze	Lose energy, become regularly arranged in rows, stop moving around each other, and only vibrate on the spot
16	Gas pressure	Particles collide with the sides of a container creating pressure; pressure increases when temperature increases
17	Density	Density = $\frac{\text{Mass}}{\text{Volume}}$
18	High density	Particles tightly packed, e.g. solids
19	Low density	Particles loosely packed, e.g. gases, and could be compressed to become more dense
20	Internal energy	Total energy stored by particles in a system
21	Latent heat	Energy being used for breaking bonds between particles, so that it can change state; this energy doesn't raise the temperature
22	Specific latent heat of fusion	Energy needed to change 1kg of a solid into a liquid without changing its temperature
23	Density of a regular solid	Measure the sides using a ruler and the mass using scales, find volume of the solid, then calculate density
24	Density of an irregular solid	Use scales to find the mass, put the solid in a Eureka can full of water and measure the volume displaced using a measuring cylinder, then calculate density
25	Density of a liquid	Use scales to find the mass, use a measuring cylinder to find the volume, then calculate density

Year 10 - Physics - Topic 4: Atomic Structure & Radioactivity (Paper 1) - Cycle Three

1	Atom	The smallest possible particle of an element
2	Plum pudding model	Showed atoms as spheres of positive charge, with electrons scattered throughout them
3	Rutherford's model of the atom	A positively charged nucleus, a large area of empty space, negatively charged electrons orbit the nucleus
4	Rutherford's experiment	Fired alpha particles at a piece of very thin gold foil
5	Results of Rutherford's experiment	Most of the alpha particles passed through, proving most of an atom was empty space; some were deflected, suggesting they had hit a nucleus with a + charge
6	Bohr's model of the atom	Electrons orbit in shells, the positive charge in the nucleus can be divided into individual protons
7	Chadwick	Discovered that the nucleus also contains neutrons
8	Decay	When a radioactive substance emits radiation at random
9	Activity	Number of unstable atoms that decay per second (measured in Becquerels)
10	Half-life	Average time it takes for half of the radioactive atoms in a sample to decay
11	Isotope	Two isotopes of the same element are atoms with the same number of protons but different numbers of neutrons

12	Ionising radiation	Radiation that can remove electrons from atoms, creating positive ions
13	Ion	An atom that has lost or gained electrons to gain a charge
14	Alpha particle	Made of two protons and two neutrons, with a charge of +2
15	Beta particle	Made of one electron, with a charge of -1
16	Gamma radiation	An electromagnetic wave
17	Ionising power	How easily the type of radiation can remove electrons from atoms; the most ionising is alpha
18	Penetrating power	How easily the type of radiation can pass through materials; the most penetrating is gamma
19	Alpha decay equation	Atomic mass of atom decreases by four, atomic number decreases by two; a different element is formed
20	Beta decay equation	The atomic number increases by one; a different element is formed
21	Irradiated	When an object is exposed to ionising radiation but does not become radioactive
22	Contaminated	When unwanted radioactive atoms get onto an object they release radiation and may cause harm
23	Dangers of radiation	Radiation can ionise atoms in cells, leading to cancer

Year 10 - Chemistry - Topics 6: Rates of Reaction (Paper 2) - Cycle Three

1	Rate of reaction	How quickly reactants are turned into products	6	Effects of increasing concentration	There are more particles in a fixed volume so they will collide more frequently
2	Activation energy	The minimum energy that particles must have to successfully collide	7	Effect of increasing gas pressure	The particles are in a smaller space, and therefore closer together, so will collide more frequently
3	Factors which affect the rate of reaction	Temperature, concentration of reactants (or pressure if it is a gas), surface area, and presence of a catalyst	8	Effect of increasing surface area	More particles are exposed and able to collide in a set period of time
4	Catalyst	Speeds up the rate of reaction by lowering the activation energy without being used up or changed	9	Reversible reactions	The products can react to produce the original reactants
5	Effect of increasing temperature	Particles will move faster so will collide more frequently, and particles will collide with more energy (more successful collisions)	10	Closed system	When nothing can escape or get in
			11	Equilibrium	When the rate of forward reaction and backward reaction are equal in a reversible reaction, the amount of products and reactants will remain constant

Year 10 - Physics - Topic 6: Waves (Paper 2) - Cycle Three

1	Waves	Transfer energy without transferring particles
2	Longitudinal wave	A wave in which the vibrations are parallel to the direction of energy transfer, e.g. sound waves
3	Transverse wave	A wave in which the vibrations are at right angles to the direction of energy travel, e.g. water waves and electromagnetic waves
4	Amplitude	The maximum displacement of the wave
5	Wavelength	The distance between the same point on two adjacent waves
6	Frequency	The number of waves passing a certain point each second, measured in Hertz (Hz)
7	Wave speed equation	Wave speed = frequency X wavelength (m/s) (Hz) (m)
8	Absorption	When a wave is absorbed by a material, the material's internal energy stores increase
9	Refraction	When a wave enters a new material, it changes speed; this causes it to change direction, which is known as refraction
10	Signal generator	Used to generate waves of a specific frequency
11	Oscilloscope	Used to show waves on a screen
12	Ripple tank	Can be used to study water waves
13	Leslie cube	A metal cube with different surfaces, e.g. matt black, shiny silver
14	Electromagnetic spectrum	A group of transverse waves made by the vibration of electric and magnetic fields

15	Order of the EM spectrum	RMIVUXG
16	High frequency EM waves	Have a low wavelength, are high energy and can be dangerous
17	Radio waves	Used for communication, e.g. TV and FM radio
18	Microwaves	Used for communication with satellites, as they can pass through the atmosphere, as well as cooking
19	Infrared (IR) radiation	Hotter objects give out more infrared radiation, used for cooking / heating
20	Fibre optic cables	Use pulses of visible light to transmit data over long distances
21	Ultraviolet (UV) waves	UV waves from the sun make us tan / burn, and can be used to make fluorescent ink on bank notes glow
22	X-rays	Pass easily through skin, but are absorbed by bone, so can be used to detect broken bones
23	Gamma waves	Used for killing cancer cells / sterilising food
24	Ionising waves	Carry enough energy to remove electrons from atoms, and can destroy cells or cause mutations, leading to cancer, e.g. X rays / gamma waves
25	Radiation dose	A measure of the risk from radiation, measured in Sieverts

Year 10 - Spanish - Relationships, Health & Food - Cycle Three

A	Verbs and Phrases	
1	Alegre / feliz	Happy
2	Cariñoso	Affectionate
3	Amable	Kind
4	Egoísta	Selfish
5	Tavieso	Naughty
6	Comprensivo	Understanding
7	Fiel / leal	Loyal
8	Tonto	Silly
9	Listo	Clever
10	(no) me llevo bien con	I (don't) get on well with
11	Me enfado con	I get angry with
12	Me peleo con	I fight with
13	Discuto con	I argue with
14	Tenemos mucho en comun	We have a lot in common
15	Me da consejos	He / she gives me advice
16	Me hace reír	He / she makes me laugh
17	(no) me apoya	He / she (doesn't) support me
18	(no) me critica / juzga	He / she (doesn't) criticise me
19	(no) me conoce bien	He / she (doesn't) know me well
20	Un buen sentido del humor	A good sense of humour
21	Mi edad	My age

B	Vocabulary	
1	Casarse	To get married
2	Enamorarse	To fall in love
3	Jubilarse	To retire
4	Estar soltero	To be single
5	Tengo catarro	To have a cold
6	Tengo gripe	To have the flu
7	Tengo tos	To have a cough
8	Estoy enfermo / cansado	To be ill / tired
9	Despertarse	To wake up
10	Levantarse	To get up
11	Acostarse	To go to bed
12	Peinarse	To comb your hair
13	Alimento	Food
14	Huevo	Egg
15	Bocadillo	Sandwich
16	Mariscos	Seafood
17	Queso	Cheese
18	Cordero / cerdo	Lamb / pork
19	Gambas	Prawns
20	Judías	Beans
21	Champiñones	Mushrooms

Year 10 - BTEC Sport - Unit Two (Practical Performance in Sport) - Cycle Three

A Terminology		
1	Rules	Define what is allowed and what is not allowed to occur during a competitive sporting situation
2	Regulations	Created by the sport's governing body resulting in agreed principles that need to be implemented
3	Scoring system	The requirement to attain victory in the form of goals or points
4	Officials	A person of authority who is responsible for controlling a game from a neutral point of view

B Types of Demands		
1	Technical demands	The skills and techniques required
2	Tactical demands	Decision-making and strategies to overcome an opponent, including using personal strengths

C Types of Skills		
1	Continuous skill	The skill has no obvious beginning or end
2	Discrete skill	The skill has a clear beginning and end
3	Serial skill	Series of discrete skills that combine together to produce an organised movement

D Types of Practice		
1	Isolated practice	Skills and techniques demonstrated independently (without any pressure or external forces) to help with success rate
2	Conditioned practice	Skills and techniques demonstrated in scenarios with different types of pressure attached to them
3	Competitive situations	Skills and techniques are demonstrated in situations that create game-like conditions

E Components of Physical Fitness		
1	Muscular endurance	The ability to use voluntary muscles repeatedly without getting tired
2	Muscular strength	The amount of force a muscle can generate when it contracts to overcome resistance
3	Body composition	The ratio of fat to fat-free mass, e.g. vital organs, muscle, bone, etc. in the body
4	Flexibility	The range of movement possible at a joint
5	Cardiovascular fitness	The ability to exercise the body for long periods of time without getting tired
6	Speed	How quickly a movement can be performed or a distance can be covered