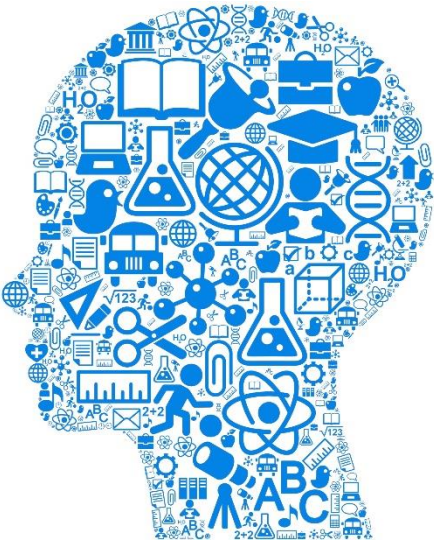


Year 10 | Cycle 1

100% Book



Tutor group:

Your 100% book and knowledge organisers

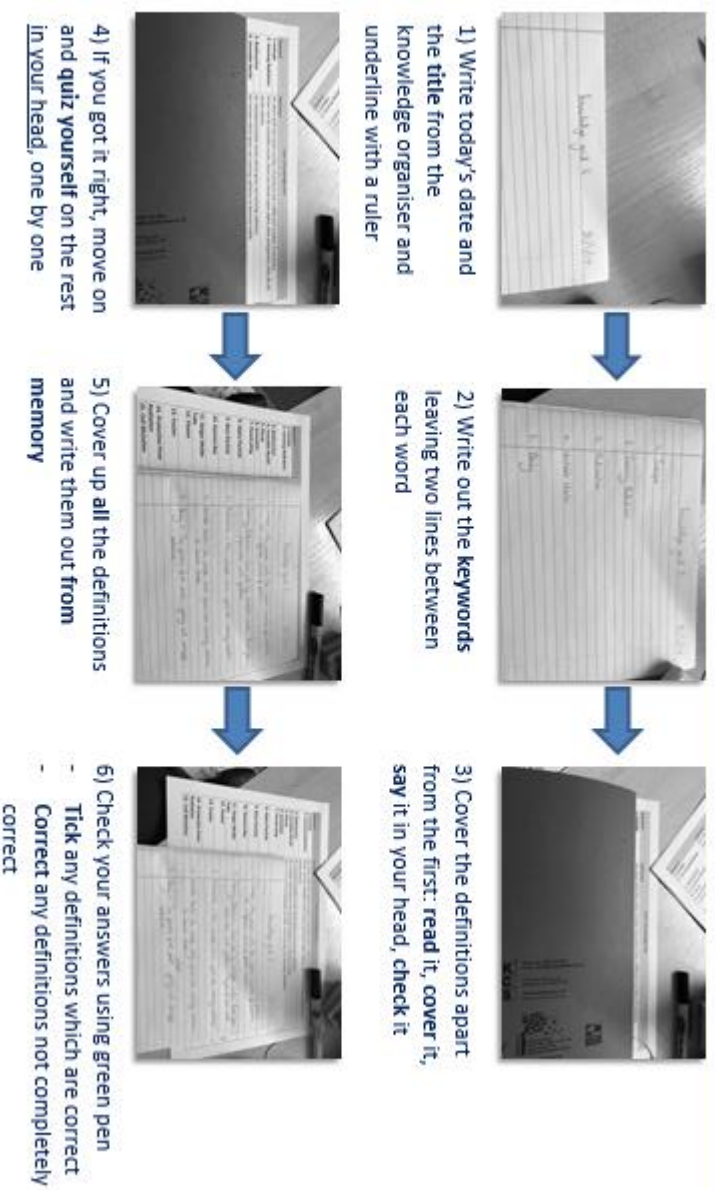
Knowledge organisers contain **critical** knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long-term.

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?



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 – Art and Design – Cycle One

A	Art Terms One	
1	Renaissance	French word meaning 'rebirth' in reference to art made in Italy in about AD 1400
2	Impressionism	Paintings with bright colours, bold brushstrokes and a rebellious spirit
3	Chiaroscuro	Extreme contrast between light and shadow for dramatic effect
4	Contemporary art	Art produced in the second half of the 20th or in the 21st century
5	Planes of the face	Form of a head broken down into different flat surfaces
6	Human condition	Key events and situations that make up the essentials of human existence, such as birth, growth, conflict, and mortality
7	Monochrome	Artwork that only includes one colour
8	Reductive drawing	Technique where darkness is laid onto paper and removed to show the light parts of an image
9	Figurative	Representing forms in art that are recognisable from life

B	Art Terms Two	
1	Photomontage	A collage constructed from photographs
2	Photomanipulation	Transforming or altering a photograph using various methods and techniques
3	Plate	The surface upon which you have created your design
4	Block-printing	Process of printing designs by engraving wooden blocks or other surface
5	Gouge	Tool used for removing lino in the block printing process
6	Incise	Mark or decorate an object or surface with a cut or gouges
7	Brayer	Roller that is used in printmaking to evenly spread out ink
8	Offset	Transferring ink from a freshly printed page onto another surface
9	Invert	An image where up and down or left and right are reversed

Year 10 – GCSE Business – Cycle One

A	Key Terms	
1	Entrepreneur	Someone who is willing to take risks involved in starting a new business
2	Consumer	Someone who uses goods and services produced by businesses
3	Factors of production	The resources a business uses to provide their goods and services: land, labour, capital, enterprise
4	Opportunity cost	The sacrifice made when making a decision between two options
5	Secondary sector	Second stage of the production process, converting raw materials into products
6	Tertiary sector	Final stage of production, providing a service to customers
7	Inflation	The rate at which prices are increasing
8	Interest rates	The cost of borrowing money or the reward for saving money, expressed as a percentage
9	Limited liability	The owners of the business can only lose the amount of money they put into the business
10	Unlimited liability	Owner can lose money they invested and their personal assets; one legal entity
11	Company	A business that has its own legal identity; it can own items, owe money, sue and be sued
12	Shareholder	A person or an organisation that owns part of a company; each shareholder owns a 'share' of the business
13	Aim	A general goal of a business
14	Objective	A specific target that is set for a business to achieve
15	Public sector organisations	Organisations owned by the government

B	Key Terms	
1	Stakeholder	Individuals and organisations that are affected by, and affect, the activities of a business
2	Dividends	The financial rewards paid out to shareholders each year
3	Tariff	A tax on foreign goods imported into a country
4	Imports	Goods and services purchased from overseas by consumers or businesses
5	Business plan	A document setting out what a business does and what it hopes to achieve in the future
6	Uncertainty	The outcomes or consequences are very difficult to predict due to a lack of information about a situation
7	Risk	Is the possibility of something going wrong
8	Revenue	The income that a firm receives from selling its goods or services; it is also referred to as 'turnover'
9	Revenue formula	Revenue = number units sold X selling price
10	Total costs	Fixed costs plus variable costs
11	Franchise	When a franchisor sells the "rights" to its products to a franchisee
12	Franchisee	Buys a franchise and usually pays a fee or percentage of turnover
13	Outsourcing	Occurs when a business uses another business to produce for it
14	Economies of scale	When the unit cost of production falls as the output of a business increases and the business expands
15	Diseconomies of scale	The unit cost of production increases as the business expands

Year 10 – Drama – Cycle One

A	Job Roles and Stage Configurations	
1	Director	Person responsible for leading the overall creative vision of the show
2	Actor	Person who performs on stage
3	Playwright	Person responsible for writing and editing the play
4	Theatre manager	Responsible for front of house employees and audience experience
5	Stage manager	Responsible for coordinating the design team and backstage crew
6	Understudy	Performer who learns the lines and blocking of a regular performer, stepping into the role if there is illness or injury
7	Designers	Responsible for creating one element (such as costume) for the show in line with the director's vision
8	In the round	The stage is positioned at the centre with audience around the whole stage
9	Thrust	Acting area comes out into the audience, so that audience are sitting on three sides of the action of the play
10	Traverse	Where the audience sits on two sides – like a catwalk
11	Proscenium arch	Audience sat facing forwards, stage has a frame around the edge
12	End on	Audience sat facing forwards
13	Promenade	Performance area set in multiple locations in a venue; audience follows the action on foot, moving from one location to another

B	Noughts and Crosses	
1	Genre	Type of dramatic work, e.g. a comedy
2	Style	Manner in which a piece is performed, e.g. physical style
3	Context	Circumstances of the time the play is set in; it refers to the historical and social background
4	Character motivation	The reason behind a character's behaviour and actions
5	Subtext	The underlying and unspoken thoughts of characters – what they really think and believe
6	Status	Position or ranking in society, and with other characters in the play
7	Racism	The belief that different races possess distinct abilities, or qualities, making them more or less important than each other
8	Discrimination	Treating a person unfairly because of who they are or what they believe

C	Design Terms	
1	Scale	The relationship between the real size of something and its size on a model or stage
2	Shape	The particular physical form or appearance of something
3	Colour palette	The physical appearance through hue and pigmentation
4	Texture	The degree to which something is, or appears to be, rough or smooth, soft or hard

Year 10 – English Literature: An Inspector Calls – Cycle One

A	Writer's Craft	
1	Playwright	A person who writes plays
2	Stage directions	Instructions for actors / director indicating actions or movement, tone, sound and lighting
3	Dramatic irony	The audience knows something the characters don't
4	Cliff-hanger	A dramatic, exciting end to leave the audience in suspense
5	Foreshadowing	A warning or clue about a future event
6	Tension	A feeling of fear, anxiety or worry
7	Pattern of language	A group of words that link to build up a similar idea or mood
8	Monologue	A long speech delivered by one character / person

B	Plot	
1	Birlings and Gerald celebrate Sheila's engagement	
2	Inspector arrives and interrogates Mr Birling	
3	Sheila is interrogated and admits she had Eva fired	
4	Gerald is interrogated and admits his affair with Daisy	
5	Mrs Birling is questioned and shows no remorse	
6	Eric returns; we discover his drinking, theft and abuse of Eva/Daisy	
7	The Inspector blames everyone; Mr and Mrs Birling blame Eric	
8	Eric and Sheila change but the others revert back to escape blame	

C	Vocabulary	
1	Socialism	A social system that cares about community and works to support all social classes
2	Capitalism	A social system driven by profit, where people are only concerned about themselves
3	Patriarchy	A system of society in which men hold the power
4	Hierarchy	A structure in which people or things are ranked according to levels of importance
5	Reputation	The way you are viewed by others
6	Hypocrisy	To pretend to have beliefs that you do not actually have
7	Disempower(ed)	To deprive someone of their power
8	Epiphany	A huge moment of sudden realisation

D	Characters	
1	Inspector	Priestley's mouthpiece; advocates social justice
2	Mr Birling	Businessman, capitalist, against social equality
3	Mrs Birling	Husband's social superior; believes in personal responsibility
4	Sheila	Young girl, comes to change views and pities Eva; feels regret
5	Eric	Young man, drinks too much, rapes Eva, regrets actions
6	Gerald	Businessman, engaged to Sheila, politically closest to Birling
7	Eva Smith	Unseen in play; comes to stand for victims of social injustice

Year 10 – English: Anthology Poetry – Cycle One

	Power and Legacy Poems		Key quote 1	Key quote 2
A	1. Ozymandias by Shelley	2. Sonnet about a broken statue and lost power	3. 'wrinkled lip and sneer of cold command'	4. 'That colossal wreck, boundless and bare [...] the lone and level sands stretch far away'
B	1. My Last Duchess by Browning	2. Jealous Duke abuses power; has wife murdered	3. 'She had / A heart—how shall I say?— too soon made glad, / Too easily impressed'	4. 'This grew; I gave commands; Then all smiles stopped together'
C	1. London by Blake	2. Abuse of power in London	3. 'in every face / Marks of weakness, marks of woe'	4. 'Every black'ning church appals'

	Power of the Natural World (vs Humans)		Key quote 1	Key quote 2
D	1. The Prelude by Wordsworth	2. Power of nature overwhelms the speaker in his boat	3. 'grim shape / Towered up between me and the stars'	4. 'moved slowly through the mind / By day, and were a trouble to my dreams'
E	1. Storm on the Island by Heaney	2. Powerful storm attacks an island, causing fear	3. 'We just sit tight while wind dives / and strafes invisibly'	4. 'Strange, it is a huge nothing that we fear'
F	1. Exposure by Owen	2. WW1 trench soldiers attacked by the weather	3. 'Our brains ache in the merciless iced east winds that knife us'	4. 'But nothing happens' (repetition)

Year 10 – English: Anthology Poetry – Cycle One

	Conflict of Culture and Identity		Key quote 1	Key quote 2
G	1. Tissue by Dharker	2. The power of paper in our lives	3. 'smoothed and stroked / thinned to be transparent'	4. 'Paper that lets the light / Shine through'
H	1. The Emigree by Rumens	2. An emigree grieves for her lost homeland	3. 'It may be sick with tyrants / but I am branded by an impression of sunlight'	4. 'I have no passport, there's no way back at all / but my city comes to me'
I	1. Checking Out Me History by Agard	2. Speaker reclaims his identity and culture	3. 'Dem tell me / Wha dem want to tell me'	4. 'But now I checking out me own history / I carving out me identity'
J	1. Kamikaze by Garland	2. Kamikaze pilot turns back; shunned by family and friends	3. 'enough fuel for a one-way journey into history'	4. 'till gradually we too learned / to be silent'

	War and Conflict Poems		Key quote 1	Key quote 2
K	1. Bayonet Charge by Hughes	2. Patriotic soldier at war loses faith	3. 'Stumbling, sweating, plunged, almost stopped'	4. 'King, honour, human dignity etcetera, dropped like luxuries'
L	1. Remains by Armitage	2. Soldier shoot looter; suffers PTSD	3. 'And the drink and the drugs won't flush him out'	4. 'His bloody life in my bloody hands'
M	1. Poppies by Weir	2. Mother of a dead soldier grieves and remembers him	3. 'stomach busy / making tucks, darts, pleats'	4. 'I listened, hoping to hear / Your playground voice catching on the wind'
N	1. War Photographer by Duffy	2. War photographer reflects on the trauma they have documented	2. 'spools of suffering set out in ordered rows'	4. 'Blood stained into foreign dust / A hundred agonies in black and white'
O	1. Charge of the Light Brigade by Tennyson	2. Soldiers sacrifice themselves because of a mistake	3. 'Into the jaws of death / Into the mouth of hell'	4. 'Honour the light brigade, / Noble six hundred!'

Year 10 - English Literature - Cycle One (Macbeth)

A	Writer's craft	
1	Foreshadowing	A warning or indication of a future event
2	Soliloquy	When a character is alone and speaks their thoughts aloud
3	Aside	A remark that is intended to be heard only by the audience, not by other characters
4	Metaphor	When a word, object or idea is used in place of another
5	Imperatives	A verb used to give a command or an order
6	Pathetic fallacy	When the weather reflects the mood of the scene
7	Paradoxical language	A word / phrase with two meanings that doesn't make sense
8	Imagery	Visually descriptive language; paints a picture

B	Characters	
1	Macbeth	Ambitious Thane; commits regicide; fatal flaw leads to downfall
2	Lady Macbeth	Ambitious; regrets actions; loses control
3	Macduff	Brave thane; betrayed by Macbeth; kills Macbeth
4	Banquo	Macbeth's close friend; murdered on his orders
5	Duncan	King of Scotland; murdered by Macbeth
6	Malcolm	Duncan's son; flees to England, King at the end

C	Key words	
1	Subvert	To overthrow or undermine
2	Tragedy	An event causing great suffering, destruction, and distress
3	Tragic hero	A character who suffers as a result of a fatal flaw
4	Hamartia	A fatal flaw leading to the downfall of a tragic hero or heroine
5	Regicide	The act of killing a King
6	Divine Right of Kings	The idea that the monarch is chosen by God
7	Unnatural	Goes against the ordinary course of nature; abnormal
8	Fate	Something that is destined to happen
9	Apparition	A ghost or ghostlike image
10	Downfall	Loss of power or status
11	Supernatural	Things being above or beyond what is natural and unexplainable by natural law
12	Tyrant	A cruel and oppressive ruler
13	Tyrannical	Using power in cruel and unfair way
14	Ambition	A strong desire or determination to do something

Year 10 – French – Cycle One

A	Vocabulary	
1	Le corps	The body
2	Le cœur	The heart
3	Épouvante	Horror
4	La météo	The weather forecast
5	Les infos / les actualités	The news
6	L'histoire	Story / history
7	Les personnages	The characters
8	Des vignobles	Vineyards
9	Des collines	Hills
10	Des champs	Fields
11	Les immeubles	Apartment block
12	La route / la rue	The road / street
13	En banlieue	In the suburbs
14	Bruyant	Noisy
15	Les passetemps	Free time
16	Les relations	Relationships
17	L'armoire	The wardrobe
18	Les rideaux	The curtains
19	La commode	The chest of drawers
20	Le lit	The bed
21	Sombre	Dark
22	Douillette	Cosy

B	Phrases	
1	Je m'entends	I get on with
2	Je me suis entendu	I got on with
3	Je me dispute	I argue
4	Je me suis disputé(e)	I argued
5	On s'aime	We love each other
6	Il m'embête	He irritates me
7	Il m'énervé	He annoys me
8	Je ne supporte pas	I can't stand
9	Je suis amoureux de	I'm in love with
10	Je veux avoir des enfants	I want to have children
11	Je me détends	I relax
12	Ça m'aide à	It helps me to
13	Je suis accro	I am addicted to
14	Ça me fait du bien	It does me good
15	C'est une perte / un gaspillage de temps	It's a waste of time
16	C'est dommage	It's a shame
17	C'est dégoûtant	It's disgusting
18	Je partage ma chambre	I share my room
19	Faire du vélo	To ride a bike
20	Faire du footing	To do some jogging

Year 10 – GCSE Geography: Changing UK landscapes – Cycle One

A	Geology and Landscapes	
1	Sedimentary	Rocks formed by layers of sediment
2	Igneous	Rocks made from cooled volcanic material
3	Metamorphic	Rocks formed by great heat and pressure

B	Physical Processes	
1	Erosion	The breaking down of land
2	Weathering	The breaking down of land, without movement
3	Deposition	The laying down of sediment
4	Mass movement	The downhill movement of material under the influence of gravity
5	Transportation	The movement of sediment
6	Hydraulic action	The force of the water compresses air into cracks in the rock, breaking it down
7	Abrasion	The rocks in the water collide with the land, breaking it down
8	Attrition	Rocks in the water collide with each other, becoming more rounded and smoother
9	Solution	Minerals in the rock dissolve into the slightly acidic water
10	Mechanical weathering (freeze-thaw)	The repeated freezing and thawing of water in cracks breaking down the rock
11	Chemical weathering	Acid rain dissolves minerals in the rock
12	Biological weathering	Animals or plants break down rock by burrowing or root growth
13	Sliding	The downhill movement of land in a linear plane

14	Slumping	The downhill movement of land in a rotational plane
15	Longshore drift	The movement of sediment along the coast
16	Traction	The rolling of large boulders in the water
17	Suspension	The carrying of rocks in the water
18	Saltation	The picking up and dropping of rocks in the water

C	Coasts	
1	Fetch	The distance the wind has pushed the waves
2	Destructive waves	High energy waves that erode the coast
3	Constructive waves	Low energy waves that build the coast
4	Coastal recession	The retreat of the coast, caused by erosion
5	Prevailing wind	The main wind direction in a place

D	Rivers	
1	River banks	The sides of the river channel
2	River bed	The bottom of the river channel
3	Precipitation	The area of land drained by a river
4	Transpiration	The evaporation of water from leaves
5	Surface run-off	The flow of water along the surface of the land
6	Infiltration	The filtering of water through soil
7	Percolation	The filtering of water through rock

Year 10 – GCSE Geography: Global Development – Cycle One

A	Global Development	
1	Development	The process of improving quality of life in a country
2	Development indicator	A specific measure of development
3	Composite development indicator	A measure of development that includes more than one aspect of development
4	Human Development Index	Gross national income (per capita) + life expectancy + mean years in education
5	Gross National Income (GNI)	The total money earned by people and businesses in country per year
6	Life expectancy	The age a person is predicted to live to
7	Mean years of education	The average number of years an adult has been in education
8	Gross Domestic Product (GDP)	The total value of goods and services produced by a country per year
9	Uneven development	The differences in development level between countries or regions
10	Bilateral aid	When one country gives money or resources to another country
11	Multilateral aid	When an organisation gives money or resources to a country
12	Short-term aid	Money or resources given to help in an emergency
13	Long-term aid	Money or resources given to help improve development in a country
14	Foreign Direct Investment (FDI)	When a company invests in a company in a different country
15	Fair Trade	An agreement that supports producers to receive fair income and working conditions

B	Development in India	
1	Core	An area of the country with a lot of economic investment
2	Periphery	An area of the country with very little economic investment
3	Primary sector	Jobs that involve the extraction of raw materials
4	Secondary sector	Jobs that involve the manufacturing of raw materials
5	Tertiary sector	Jobs that involve the provision of services
6	Quaternary sector	Jobs that involve research and technology
7	Imports	When goods are bought by a country
8	Exports	When goods are sold by a country
9	Public investment	When money is spent by the government to try and improve the quality of life in a country
10	Private investment	When money is spent by companies in a country, creating job opportunities
11	Regional variation	Differences in different parts of the country
12	Demographics	The study of population changes
13	Geopolitics	Relationships between countries
14	Consumerism	Social trend that encourages people to buy things
15	Digital divide	The unevenness of internet access
16	Territorial disputes	When countries are in conflict over land

Year 10 – Health and Social Care – Cycle One

A	Services	
1	Primary care	Care where you can make your own appointment
2	Secondary and tertiary care	Specialist medical care that you are referred to from a professional
3	Allied health professionals	Support individuals who are experiencing both mental and physical health problems
4	Social care for children	To help children attain their goal or children who are struggling
5	Services for children / adults with specific needs	Help for those with learning disabilities, sensory impairments, long term health issues, physical disabilities
6	Services for older adults	Help for people over the age of 65 who have need physical help or who have memory loss issues, e.g. dementia or who have become ill
7	Informal care	Help from family, friends and neighbours

B	Barriers	
1	Physical barriers	Issues getting into and around the facilities due to mobility
2	Sensory barriers	Hearing and visual difficulties
3	Social, cultural and psychological barriers	Lack of awareness, differing cultural beliefs, social stigma, fear of loss of independence
4	Language barriers	Differing first language, language impairments
5	Geographical barriers	Distance of provider, poor transport links
6	Intellectual barriers	Learning difficulties or learning disabilities
7	Resource barriers for service provider	Staff shortages, lack of local funding, high local demand
8	Financial barriers	Charging for services, cost of transport, loss of income while accessing services

Year 10 – Health and Social Care – Cycle One

C	Life Changes	
1	Characteristic	Something that is typical of people at a particular life stage
2	Classification	Grouping similar things into a category
3	Lifestyle	Involves the choices made that affect health and development such a diet and exercise
4	Menopause	The ceasing (stopping) of menstruation
5	Contentment	An emotional state when infants and children feel happy in their environment and with the way they are being cared for
6	Self-image	How individuals see themselves or how they think others see them
7	Self-esteem	How good or bad an individual feels about themselves and how much they value their attributes
8	Genetic inheritance	The genes a person inherits from their parents
9	Gender role	The role and responsibilities determined by a person's gender
10	Role model	Someone a person admires and strives to be like
11	Material possessions	Things owned by an individual

D	Lifespan Development	
1	Infancy	The first stage of development between 0 and 2 years
2	Early childhood	The second stage of development between 3 and 8 years
3	Adolescence	The third stage of development between 9 and 18 years
4	Early adulthood	The fourth stage of development between 19 and 45 years
5	Middle adulthood	The fifth stage of development between 46 and 65 years
6	Later adulthood	The sixth and final stage of development from 65 years onwards
7	Growth spurts	Periods of fast growth within a human; happens in the first three stages
8	Sexual Maturity	When an individual's reproductive organs are fully matured
9	Physical Maturity	When an individual reaches their full height and the peak of physical fitness
10	Ageing process	Happens in later life - by about 65, individuals will have lost some strength and muscle tone

Year 10 – History: Elizabethan England – Cycle One

A	Elizabethan Government	
1	Coronation	The ceremony that crowns a monarch in the eyes of God
2	Royal progress	A tour of England made by the monarch and their Royal Court
3	Royal Court	People selected by the monarch to be in their presence
4	Factions	Groups with different political interests and rivals at the Royal Court
5	Patronage	A system used by the monarch to reward loyalty with wealth, status and/or land
6	Privy Council	Advisors selected by Elizabeth to help her govern England
7	Lord lieutenant	A noble with responsibility for maintaining law and order in a county
8	JPs (Justices of the peace)	Members of the gentry who enforced law and order throughout a county
9	Parish constable	An officer with responsibility for the day-to-day maintenance of law and within each parish
10	Parliament	The group of politicians from the House of Lords and Commons that made laws and raised taxes

B	Lifestyles of the Rich and Poor	
1	Nobility	Highest social class made up of the wealthiest landowners
2	Gentry	Social class underneath the nobility made up of landowners
3	Tenant farmer	Members of the lower class who rented their farms from the nobility and gentry
4	Unskilled labourers	Members of the lower class who were unskilled, seasonal workers
5	Vagrant	Someone who was unemployed and homeless and travelled the country in search of work
6	Rural depopulation	When people move from the countryside to towns and cities
7	Impotent poor	Poor people who were viewed as being genuinely unable to work and deserving of charity
8	Able-bodied poor	Poor people who were viewed as being physically able to work and undeserving of charity
9	Poor Laws	Laws introduced to tackle the issue of poverty

C	Popular Entertainment	
1	Cruel sports	Popular sporting events that involved causing harm to animals, e.g. bear baiting
2	Strolling players	Groups of actors that would travel the country performing plays
3	Theatre companies	Groups of actors who were supported financially by wealthy noblemen
4	Playwrights	People who wrote the plays performed in theatres
5	The pit	Area where the poor would stand with a theater and watch a play

Year 10 – History: Elizabethan England – Cycle One

D	The Religious Settlement	
1	Religious settlement	Changes introduced by Elizabeth to settle conflict within the Church of England
2	Clergy	People who work within the Church of England
3	Act of Supremacy	A law that established Elizabeth as Supreme Governor of the Church of England
4	Act of Uniformity	A law that required church services across England to be performed in the same style
5	Vestments	Robes worn traditionally by Catholic priests during church services
6	Royal injunctions	Instructions given to the clergy from the monarch
7	Bishops	Senior members of the clergy that oversee parish churches
8	Church of England	The official name given to Protestantism in England, with the monarch as Supreme Governor

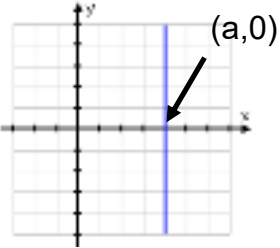

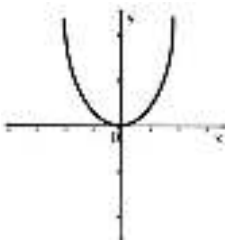
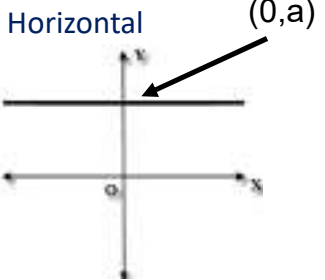
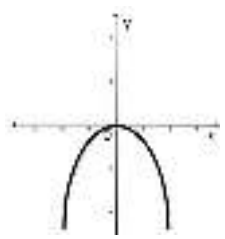

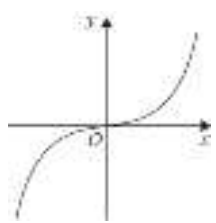
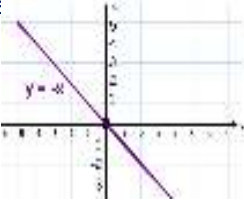

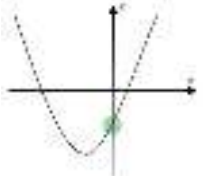
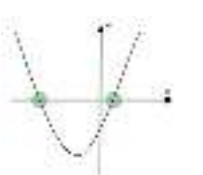
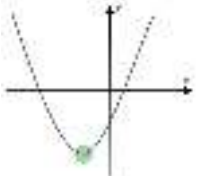

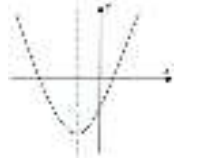

E	The Catholic Threat	
1	Recusants	Catholics who refused to attend uniform church services
2	Jesuits	Foreign Catholic priests who came to England to spread Catholicism
3	Mary, Queen of Scots	Elizabeth's cousin who was the center of Catholic plots against the queen
4	Rebellion	A direct challenge to the monarch with the aim of placing a new monarch on the throne
5	Papal Bull	Instructions provided by the Pope that apply to Catholics across Europe
6	Excommunication	Exclusion from the protection of the Catholic Church
7	Plot	Plan made in secret to do something illegal or harmful
8	Ambassador	A person who acts as a representative for a foreign power
9	Spy master	A person who controls a network of spies collecting information

Year 10 – History: Elizabethan England – Cycle One

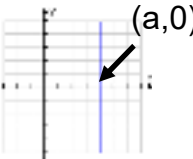
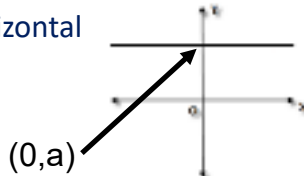

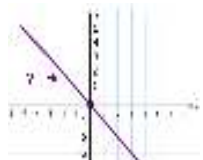
F	The Spanish Armada	
1	The Spanish Netherlands	Name given to the Netherlands when it was under the control of Spain
2	Dutch rebels	Protestants from the Netherlands that rebelled against the rule of Spain
3	Spanish Maine	Areas of South America that had been colonized by the Spanish
4	Privateers	Sailors that had permission from the monarch to capture goods from enemy ships
5	Armada	A large fleet of warships
6	Galleon	A large Spanish ship used for war and trade
7	English Channel	The waters between the south of England and the north of France
8	Beacons	A fire set up in a high position as a warning
9	Anchor	A large weight attached to ships that is dropped in the sea to stop movement
10	Fire ships	Ships loaded with explosives and set adrift to ignite and destroy enemy ships



G	The Puritan Threat	
1	Puritans	Protestant sect that promoted a simple lifestyle and literal interpretation of the Bible
2	Controversy	Something that generates a lot of disagreement and discussion
3	Archbishop of Canterbury	The most senior member of the clergy with responsibility for all bishops
4	Presbyterians	Extreme Puritans that wanted to replace bishops with local elders
5	Prophesyings	Gatherings of Puritans to discuss the Bible and Puritan beliefs
6	Separatists	Radical Puritans who wanted to break away from the Church of England


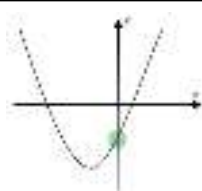
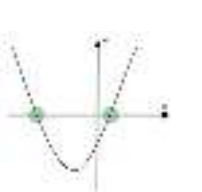
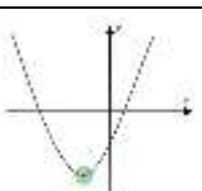
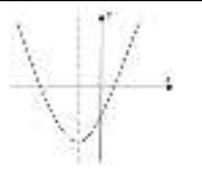
Year 10 - Foundation Maths - Cycle One


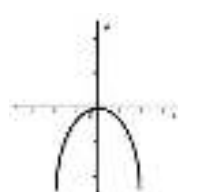
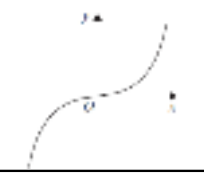

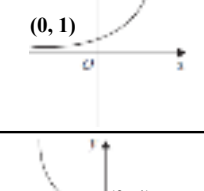

A: Straight Line Graphs			B: Coordinates and Equations of Straight Lines		C: Compound Measures		E: Further Graphs	
1	$x = a$	Vertical 	1	Formula for midpoint of (x_1, y_1) and (x_2, y_2) $\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$	9	PFA Triangle 	1	 $y = x^2$
2	$y = a$	Horizontal 	2	Equation of a straight line $y = mx + c$	10	Pressure Force ÷ Area	2	 $y = -x^2$
3	$y = x$	Diagonal 	3	Gradient in the equation of a straight line m	11	Force Pressure x Area	3	 $y = x^3$
4	$y = -x$	Diagonal 	4	Y-intercept in the equation of a straight line c	12	Area Force ÷ Pressure	4	 $y = \frac{1}{x}$
			5	Formula for gradient of line joining (x_1, y_1) and (x_2, y_2) $\frac{y_2 - y_1}{x_2 - x_1}$	D: Quadratic Graphs			
			6	Parallel lines... ...have the same gradient	1	 y-intercept	2	 Roots or solutions of $f(x) = 0$
			C: Compound Measures		3	 Turning point		
			1	SDT Triangle 	4	 Line of symmetry		
			2	Speed Distance ÷ Time				
			3	Distance Speed x Time				
			4	Time Distance ÷ Speed				
			5	DMV Triangle 				
			6	Density Mass ÷ Volume				
			7	Mass Density x Volume				
			8	Volume Mass ÷ Density				

Year 10 - Higher Maths - Cycle One

A: Straight Line Graphs		
1	$x = a$	Vertical 
2	$y = a$	Horizontal 
3	$y = x$	Diagonal 
4	$y = -x$	Diagonal 
B: Coordinates & Straight Lines		
1	Formula for midpoint of (x_1, y_1) and (x_2, y_2)	$(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2})$
2	Equation of a straight line	$y = mx + c$
3	Gradient	m
4	Y-intercept	c

B: Coordinates & Straight Lines		
5	Formula for gradient of line joining (x_1, y_1) and (x_2, y_2)	$\frac{y_2 - y_1}{x_2 - x_1}$
6	Parallel lines...	...have the same gradient
7	Reciprocal of x	$\frac{1}{x}$
8	Reciprocal of $\frac{1}{x}$	x
9	Gradient of a perpendicular line	The negative reciprocal of m
10	Two lines are perpendicular if...	...their gradients multiply to make -1
C: Compound Measures		
1	SDT Triangle	
2	Speed	Distance \div Time
3	Distance	Speed \times Time
4	Time	Distance \div Speed
5	DMV Triangle	
6	Density	Mass \div Volume
7	Mass	Density \times Volume
8	Volume	Mass \div Density

C: Compound Measures		
9	PFA Triangle	
10	Pressure	Force \div Area
11	Force	Pressure \times Area
12	Area	Force \div Pressure
D: Quadratic Graphs		
1		y-intercept
2		Roots or solutions of $f(x) = 0$
3		Turning point
4		Line of symmetry

E: Further Graphs		
1		$y = x^2$
2		$y = -x^2$
3		$y = x^3$
4		$y = \frac{1}{x}$
5		$y = a^x$
6		$y = a^{-x}$

Year 10 – Media BTEC – Cycle One

A	Media Purposes	
1	Information	To inform the audience about something
2	Entertainment	To excite the audience
3	Escapism	To distract people from everyday lives
4	Profit	To make money
5	Community benefit	To help a society or group
6	Raising awareness	To highlight an important issue
7	Critical acclaim	To be recognised by critics and reviewers
8	Inspiration	To motivate people
9	Innovation	To promote new technology or methods
10	Experimentation	To trial new technology or methods

B	Media Key Terms	
1	Gender	Whether an audience identifies as male or female
2	Age	How old the audience are
3	Target audience	Who a product is aimed at
4	Secondary audience	Any smaller groups that may also be attracted to a product
5	Genre	The category or style of a media product
6	Hybrid genre	A combination of more than one genre
7	Sub-genre	A small and precise part of a genre
8	Iconography	The way a genre, style or certain range of products looks
9	Themes	The big ideas or images that repeat in a product
10	Mode of address	The way that a product 'talks' to an audience
11	Setting	Where a text takes place
12	Intertextuality	Connections between more than one text

Year 10 – GCSE Religious Studies – Cycle One

A Christian Denominations		
1	Conservative	Having traditional beliefs that have not changed over time
2	Liberal	Adapting traditional beliefs to the modern world
3	Catholicism	The largest Christian denomination under the authority of the Pope in Rome
4	Protestantism	The second largest Christian denomination, which rejects the authority of the Pope and believes the Bible as their only source of authority
5	Anglicanism / Church of England	The largest denomination in England; it is a Protestant denomination but it has kept some important Catholic beliefs and practices
6	Quakers	A Protestant denomination whose central belief is that every human being contains a reflection of the image of God
7	Evangelicalism	Name given to Protestants who have conservative / traditional beliefs but use modern forms of worship
8	Atheism	The belief that there is no God
9	Humanism	Atheists who place human welfare above all else

B Issues of Relationships		
1	Responsibilities [2]	Actions / duties you are expected to carry out, e.g. looking after family members
2	Roles [2]	Position, status or function of a person in society, as well as the characteristics / behaviour expected of them
3	Cohabitation [2]	To live together in a sexual relationship without being married
4	Commitment [2]	A sense of dedication and obligation to someone or something

5	Adultery [2]	Voluntary sexual intercourse between a married person and a person who is not their spouse
6	Divorce [2]	To legally end a marriage
7	Annulment	The recognition that a marriage was not legal in the first place and is then dissolved
8	Separation	Where a couple is still married but lives apart
9	Promiscuity	Having a number of casual sexual relationships
10	Infidelity	Not being sexually faithful
11	Procreation	Reproduction
12	Chastity	Not having a sexual relationship until married
13	Celibacy	When a person decides to never have a sexual relationship
14	Natural moral law	An ethical theory by Thomas Aquinas which is based on five fundamental precepts
15	Contraception [2]	Methods used to prevent a woman from becoming pregnant during or following sexual intercourse
16	Gender equality [2]	People of all genders enjoying the same rights and opportunities in all aspects of their lives
17	Patriarchal	A family or society controlled by men
18	Matriarchal	A family or society controlled by women
19	Ordination	The process by which someone becomes a priest

Year 10 – GCSE Religious Studies – Cycle One

C	Issues of Life and Death	
1	Literal	Interpreting something exactly as it is written
2	Non-literal	Interpreting religious scriptures symbolically using language, form and context
3	Creationism	The belief that God created the universe and everything in it
4	Intelligent design	The idea that living organisms are so complex they must have had a designer
5	Evolution [2]	The process by which different living creatures have developed from earlier, less complex forms
6	Cosmology	The study of the origins of the universe
7	Big Bang Theory	Scientific explanation for the origin of the universe
8	Abortion [2]	When a pregnancy is ended so it does not result in the birth of a child
9	Quality of life [2]	The extent to which life is pleasurable and meaningful
10	Sanctity of life [2]	The belief that life is precious, or sacred; for many religious believers, only human life holds this special status
11	Conception	When the egg is fertilised by sperm
12	Ensoulment	The moment at which a person gains a soul

13	Euthanasia [2]	The act of killing or permitting the death of someone who is suffering from a terminal illness, sometimes referred to as 'mercy killing'
14	Hospice	A place where people with terminal illnesses can die with dignity
15	Palliative care	Care that focuses on relieving pain and suffering
16	Situation ethics	Judging the rightness or wrongness of actions on a case-by-case basis
17	Afterlife [2]	The belief that existence continues after physical death
18	Soul [2]	The spiritual aspect of a human being, which connects them to God; it is non-physical and lives on after physical death
19	Dualism	The belief that humans are made of two separate parts; body and soul
20	Materialism	The view that nothing else exists apart from matter
21	Rite	A religious ritual or solemn ceremony
22	Environmental sustainability [2]	Using resources that will not harm the environment and will not run out so they can continue to be used in the future
23	Stewardship	To be a caretaker of the world and nature
24	Dominion	To rule over nature

Year 10 – Science | Biology Topic 1: Cells (Paper 1) – Cycle One

A	Cells and Organelles	
1	Eukaryotic	A cell with a nucleus
2	Prokaryotic	A cell without a nucleus
3	Nucleus	Contains DNA that controls the cell's activities
4	Cytoplasm	Where a cell's chemical reactions happen
5	Cell membrane	Controls what goes into and out of a cell
6	Ribosome	Part of a cell where proteins are made
7	Mitochondria	Where aerobic respiration takes place
8	Cell wall	Only found in plant cells; made of cellulose and supports the cell
9	Permanent vacuole	Only in plant cells; contains cell sap
10	Chloroplasts	Only in plant cells; where photosynthesis takes place
11	Plasmid	Only found in bacterial cells; a small loop of DNA

B	Specialised Cells	
1	Cell differentiation	When a cell becomes specialised
2	Sperm cell	Takes male DNA to the egg; it has a tail to help it swim and lots of mitochondria for energy
3	Nerve cells	Carry electrical impulses around the body; they have branches to connect to other cells
4	Muscle cells	These contract, to allow us to move; they have lots of mitochondria for energy
5	Root hair cells	Root hair cells absorb water and minerals; they have a big surface area for absorption

C	Microscopes and Cell Cycle	
1	Electron microscope	Higher magnification and resolution than a light microscope; allows you to see smaller parts of the cell
2	Magnification equation	Actual size = $\frac{\text{Image Size}}{\text{Magnification}}$
3	Cell cycle	Three stages are cell growth, chromosomes copied, mitosis
4	Mitosis	Produces two genetically identical daughter cells for the growth and repair of tissues

D	Stem Cells and Transport	
1	Stem cell	An undifferentiated cell
2	Embryonic stem cell	Can differentiate into any type of cell
3	Adult stem cell	Can differentiate into some cell types, e.g. bone marrow stem cells
4	Meristem	The part of a plant that contains stem cells
5	Diffusion	Spreading out of particles from an area of higher concentration to an area of lower concentration
6	Osmosis	The movement of water molecules across a partially permeable membrane, from a dilute to a more concentrated solution
7	Active transport	Movement from a lower concentration to a higher concentration, against the concentration gradient; requires energy
8	Features of exchange surfaces	Large surface area, thin walls, good blood supply

Year 10 – Science | Biology Topic 2: Organisation (Paper 1) – Cycle One

A	Plant Tissues and Transpiration	
1	Cell	The building block of life
2	Tissue	A group of similar cells that work together to complete a function
3	Organ	A group of different tissues that work together to complete a function
4	Palisade tissue	Where most photosynthesis takes place in the leaf, as the cells have many chloroplasts
5	Xylem	Tubes that carry water and mineral ions from the roots to the leaves
6	Phloem	Tubes that carry sugars from the leaves to other parts of the plant
7	Stomata	Pores in the lower epidermis that allow gases to diffuse in and out of the leaf
8	Guard cell	Open and close the stomata; close at night to prevent water loss
9	Transpiration	Loss of water from a plant; water moves up the xylem, and then evaporates from the stomata
10	Factors affecting transpiration	Light intensity, temperature, air flow, humidity

B	Digestion and Enzymes	
1	Iodine	Turns blue/black when added to starch
2	Benedict's reagent	Blue liquid that turns green, yellow or brick red, depending on how much sugar is in the food it is heated with
3	Biuret reagent	Turns lilac when added to protein
4	Sudan III test	Forms a bright red layer on the surface of the liquid when mixed with lipids
5	Enzyme	A protein molecule that acts as a biological catalyst
6	Substrate	A molecule that is broken down by an enzyme
7	Active site	The part of an enzyme that the substrate fits into
8	Amylase	Enzyme that breaks down starch into simple sugars; it's produced in the salivary glands and the pancreas
9	Protease	Enzyme that breaks down proteins into amino acids; it's produced in the stomach and the pancreas
10	Lipase	Enzyme that breaks down lipids into glycerol and fatty acids; it's produced in the pancreas
11	Bile	A liquid that neutralises stomach acid and emulsifies fats; it's produced in the liver and stored in the gall bladder
12	Denatured	When the active site of an enzyme changes shape, so the substrate can no longer fit
13	Factors affecting enzyme activity	High temperatures and extreme pHs cause enzymes to denature; the concentration of substrate or enzyme also affect the rate of reaction
14	Veins	Blood vessels that take blood back to the heart and have valves to prevent the backflow of blood

Year 10 – Science | Biology Topic 2: Organisation (Paper 1) – Cycle One

C	Circulatory System and Heart Disease	
1	White blood cells	Defend against infection by microbes; they can engulf pathogens, produce antitoxins or produce antibodies
2	Red blood cells	Carry oxygen, contain haemoglobin, have a large surface area and a biconcave shape
3	Platelets	Small fragments of cells, responsible for blood clotting
4	Plasma	Liquid that carries blood cells, nutrients, hormones, water, and urea
5	Arteries	Blood vessels that take blood away from the heart, have thick muscular walls, and elastic fibres to cope with high pressure
7	Capillaries	Blood vessels that carry blood to every cell; they are one cell thick to provide a short diffusion distance
8	Coronary heart disease	When the coronary arteries are blocked by fatty deposits it reduces blood flow and the supply of oxygen to the heart muscle
9	Cancer	Uncontrolled cell division leading to the build-up of a tumour
10	Malignant tumour	Tumour cells that spread to other parts of the body through the bloodstream

Year 10 – Science | Chemistry Topic 1: Atoms and Periodic Table (Paper 1) – Cycle One

A Atomic Structure		
1	Element	A substance in which all the atoms have the same atomic number
2	Atom	An atom is the smallest part of an element that can exist
3	Molecule	Two or more atoms bonded together
4	Compound	Two or more <u>different</u> atoms chemically combined together
5	Mixture	A mixture consists of two or more elements or compounds not chemically combined together
6	Nucleus	The centre of an atom; it contains protons and neutrons
7	Proton	Found in the nucleus; it has a charge of +1 and a relative mass of 1
8	Neutron	Found in the nucleus of an atom; it has a charge of 0 and a mass of 1
9	Electron	Found in the shells of an atom; it has a charge of -1 and a negligible mass
10	Electron shells	First shell contains a maximum of two electrons; second and third shells contain a maximum of eight electrons

B The Periodic Table		
1	Atomic number	The number of protons in an atom
2	Mass number	The total number of protons and neutrons in an atom
3	Isotope	Atoms of the same element, with the same number of protons but different numbers of neutrons
4	Relative atomic mass	The average value that includes the abundance of the isotopes of the element
5	Plum pudding model	A ball of positive charge with negative electrons embedded in it

6	Group number	Number of electrons in the atom's outer shell
7	Mendeleev	Invented the first periodic table, which left gaps for undiscovered elements and was arranged according to atomic mass
8	Alkali metals	React with water to produce hydrogen and a metal
9	Halogens	Decreasing reactivity down the group; more reactive halogens will displace less reactive ones
10	Noble gases	Have eight electrons in the outer shell, making them unreactive

C Separation Methods		
1	Chromatography	A method to separate a mixture of dyes in ink
2	Filtration	Used to separate insoluble solids from liquids
3	Evaporation	Used to separate a soluble salt from solution; the solution is strongly heated in an evaporating basin until crystals are left
4	Crystallisation	Used to separate a soluble salt from solution; the solution is gently heated in an evaporating basin until crystals form
5	Simple distillation	Used to separate a liquid from a solution; a condenser is used to cool hot gas until it forms a liquid

Year 10 – Science | Chemistry Topic 2: Structure and Bonding (Paper 1) – Cycle One

A	Ionic Bonds	
1	Metal	An element which loses electrons to form positive ions
2	Non-metal	An element which gains electrons to form negative ions
3	Electrostatic	The force between a positive and negative charge
4	Ionic bond	A bond formed by the electrostatic attraction between oppositely charged ions
5	Ionic lattice	Regular rows of oppositely charged ions, between which there are strong electrostatic forces of attraction in all directions
6	High melting points in ionic compounds	This is because a large amount of energy is needed to break the strong electrostatic attraction between the ions
7	Ionic compounds conducting electricity	Ionic compounds conduct electricity when melted or dissolved in water, because the ions can move to carry a current
8	Aqueous	When a substance is dissolved in water

B	Covalent Bonds	
1	Covalent bond	When two atoms share a pair of electrons
2	Low melting points in covalent compounds	This is because little energy is needed to break the weak intermolecular forces between the molecules
3	Polymer	Many small units (monomers) joined with covalent bonds
4	Diamond	Each carbon atom covalently bonded to four others; hard, very high melting point, does not conduct electricity
5	Structure of graphite	Each carbon atom covalently bonded to three others and forms layers of hexagonal rings
6	Properties of graphite	Weak covalent bonds between the layers, allowing them to slide over each other and has delocalised electrons, which allow it to conduct electricity
7	Graphene	A single layer of graphite – a layer of inter-locking hexagonal rings of carbon atoms, one atom thick
8	Fullerene	Hexagonal rings of carbon atoms with hollow shapes, e.g. buckminsterfullerene
9	Nanotubes	Thin cylinders, with high strength, electrical and thermal conductivity; used for nanotechnology and electronics

C	Metallic Bonds	
1	Metallic bonding	Rows of positive metal ions, surrounded by delocalised electrons which move through the structure
2	Alloy	A mixture of a metal with another element, e.g. steel is an alloy of iron and carbon
3	Properties of alloys	Harder than pure metals as different sized atoms distort the layers of atoms preventing the atoms from sliding

Year 10 – Science | Physics Topic 1: Energy (Paper 1) – Cycle One

A	Energy	
1	Energy stores	<u>Thermal</u> (heat) – <u>kinetic</u> (moving) – <u>gravitational potential</u> (GPE) – <u>elastic potential</u> – <u>chemical</u> (e.g. batteries, food, fuel) – <u>magnetic</u> – <u>electrostatic</u> – <u>nuclear</u>
2	Energy transfers	Energy is stored in objects and transferred by waves, electric current, heating, or when a force moves an object
3	Conservation of energy	Energy can be transferred usefully, stored or dissipated, but never created or destroyed
4	Joules (J)	The unit of energy: $1\text{kJ} = 1000\text{J}$
5	Dissipated	When energy is transferred in a way that is not useful, e.g. to the thermal energy store of the surrounding air particles
6	Energy transfer in falling objects	As the object falls, the amount of energy in its GPE store decreases and its kinetic energy increases; on impact, energy is transferred to the internal energy store of the surrounding air particles
7	Energy transfer in bungee jumping	At the beginning of the jump, the GPE store decreases and kinetic energy store increases; when the bungee cord tightens, the kinetic energy store decreases and the elastic potential energy store of the rope increases
8	Energy in pendulums	A pendulum has the largest kinetic energy store in the middle of the swing; at either side it has the largest GPE store
9	Specific heat capacity	Energy needed to raise the temperature of 1kg of a substance by 1°C
10	Lubricant	Reduces energy loss caused by friction between moving parts, so increases the efficiency of the energy transfer, e.g. oil
11	Reducing energy loss from a house	Cavity wall insulation, loft insulation, double glazing, draught excluders
12	Cavity wall insulation	Where the walls of a house are made up of an inner wall, layer of insulation and outer wall; the insulation traps air, which has a low thermal conductivity, so prevents heat loss through the wall

Year 10 – Science | Physics Topic 1: Energy (Paper 1) – Cycle One

B	Equations	
1	Gravitational potential energy (GPE)	Objects have energy in their GPE store when they are lifted above the ground
2	GPE equation	$GPE = \text{mass (kg)} \times \text{gravitational field strength (N/kg)} \times \text{change in height (m)}$
3	Kinetic energy	$\text{Kinetic energy} = \frac{1}{2} \times \text{mass (kg)} \times \text{speed (m/s}^2\text{)}$
4	Work done	The amount of energy transferred when a force moves an object
5	Efficiency	$= \frac{\text{useful output energy transferred by device}}{\text{total input energy supplied to the device}} = \frac{\text{Useful Power}}{\text{Total Power}}$
6	Power (Watts)	The rate an appliance transfers energy = $\frac{\text{energy transferred to the appliance (J)}}{\text{time taken for energy to be transferred (s)}}$

C	Energy Resources	
1	Renewable	An energy resource is one that is being replenished as it is used, e.g. wind power
2	Non-renewable	An energy resource that cannot be replenished, so will run out, e.g. coal
3	Uses of energy resources	Transport, heating and generating electricity
4	Reliable	The energy resource provides a constant supply of energy; it is not affected by the weather, e.g. coal / nuclear
5	Carbon neutral	Carbon dioxide the organism takes in is equal to the amount released when the fuel is burnt, e.g. biofuels
6	Fossil fuels	Coal, oil, gas
7	Advantages of fossil fuels	Reliable; gas is the quickest to start up
8	Disadvantages of fossil fuels	Non-renewable and release carbon dioxide, which causes global warming
9	Nuclear power	A fission reaction releases heat which turns water to steam turning a turbine, and a generator producing electricity

10	Concerns about nuclear	Long start-up time, produces dangerous waste, expensive to shut down
11	Biofuel	Carbon neutral fuel made of living things, e.g. animal waste, waste vegetable oils, plants
12	Concerns about biofuels	Leads to deforestation to create farmland
13	Geothermal	Hot rocks underground release heat which turns water to steam turning a turbine, and a generator producing electricity; can only be built in volcanic areas
14	Tidal	Floating generators move up and down, causing the generator to produce electricity; however, they spoil views and disrupt habitats
15	Hydroelectric	Falling water turns a turbine, producing electricity; this leads to large areas of land being flooded

Year 10 – Science | Physics Topic 2: Electricity (Paper 1) – Cycle One

A	Key Terms	
1	Charge (Coulombs)	Electrons are transferred when objects become charged
2	Current (Amps)	The rate of flow of electric charge; measured using an ammeter connected in series
3	Resistance (Ohms)	$\frac{\text{Potential Difference}}{\text{Current}}$
4	Potential difference (Volts)	Energy transferred per coulomb of charge; measured using a voltmeter connected in parallel
5	Ohm's law	Current through a resistor at a constant temperature is directly proportional to the potential difference across a resistor
6	Filament lamp	Current is not directly proportional to potential difference; the resistance increases as the temperature of the filament lamp increases
7	Diode	Only allows current to pass through it in one direction
8	LDR	The resistance of a light dependent resistor decreases if light intensity increases
9	Thermistor	The resistance of a thermistor decreases if temperature increases
10	Series circuit rules	Potential difference is shared between the components; current is the same everywhere in the circuit
11	Parallel circuit rules	The potential difference across each component is the same; total current is the sum of the currents through separate branches

B	Key Terms	
1	Power	Power (Watts) = current (Amps) x potential difference (V) Power = energy (Joules) / time (seconds)
2	Resistance heating	When current passes through a resistor, the power supplied to the resistor heats it
3	Fuse	A fuse contains a thin wire which will break if too much current passes through it
4	Energy transfer	Power (Watts) x time (seconds)
5	Direct current	Current goes in one direction only
6	Alternating current	Repeatedly reverses its direction; its frequency is the number of cycles per second
7	Mains circuit	Has a live wire and a neutral wire; an alternating potential difference occurs between the two wires
8	National Grid	A nationwide network of cables and transformers transferring electricity from power stations to homes
9	Step up transformer	Used at a power station to increase voltage and decrease current so less power is lost heating cables
10	Step down transformer	Used at homes to decrease voltage so it is safe to use

Year 10 – Science | Physics Topic 3: Particles (Paper 1) – Cycle One

A	The Particle Model	
1	Forces of attraction in solid	Strong forces of attraction
2	Forces of attraction in liquid	Weaker forces of attraction
3	Forces of attraction in gas	Almost no forces of attraction
4	Arrangement of particles in solid	Fixed regular arrangement
5	Arrangement of particles in liquid	Irregular arrangement; close together, but can move past each other
6	Arrangement of particles in gas	Irregular arrangement and far apart
7	Movement of particles in solid	Vibrate about fixed positions
8	Movement of particles in liquid	Move in random directions at low speeds
9	Movement of particles in gas	Free to move; travel in random directions at high speeds
10	Properties of solids	Fixed shape and cannot flow or be compressed
11	Properties of liquids	They flow and take the shape of their container; they cannot be compressed
12	Properties of gas	They flow and completely fill their container; they can be compressed
13	Order of densities	Gas → liquid → solid
14	Order of energy	Solid → liquid → gas

B	Density and Internal Energy	
1	Density	Density = $\frac{\text{mass}}{\text{volume}}$
2	To find the density of a regular solid	Measure the sides using a ruler and the mass using scales, find the volume of the solid, and then calculate density
3	To find the density of an irregular solid	Use scales to find the mass, put the solid in a Eureka can full of water, measure the volume displaced using a measuring cylinder, and then calculate density
4	To find the density of a liquid	Use scales to find the mass, use a measuring cylinder to find the volume, and then calculate density
5	Internal energy	Total energy stored by particles in the kinetic and potential energy stores
6	Specific latent heat of fusion	Energy needed to change 1kg of a solid into a liquid, without changing its temperature
7	Specific latent heat of vaporisation	Energy needed to change 1kg of a liquid into a gas, without changing its temperature
8	Effect of increasing temperature of a gas on speed	Average kinetic energy store increases → average speed increases
9	Effect of increasing temperature on gas pressure	Faster particles → more frequent collisions and larger force per collision → pressure increases

Year 10 – Spanish (School / Free Time) – Cycle One

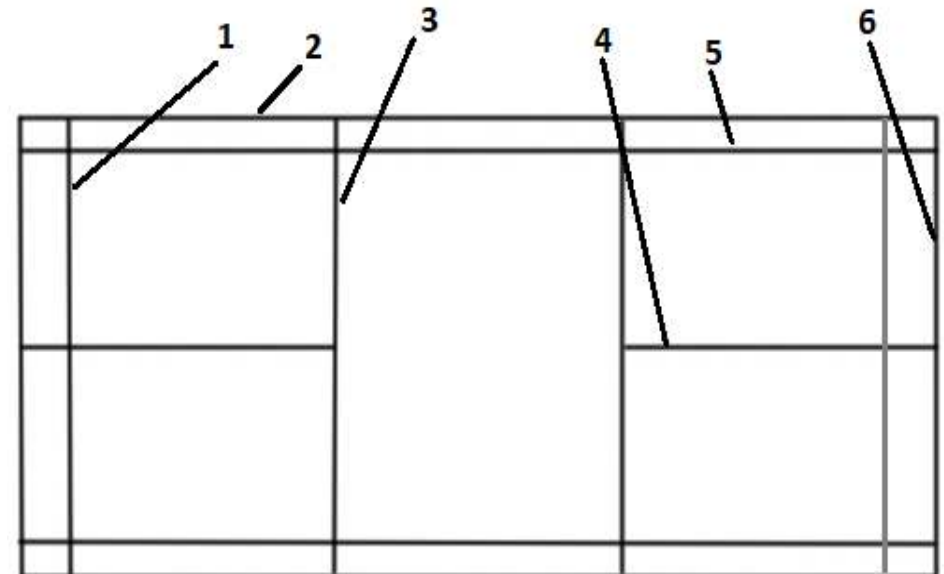
A	Verbs and Phrases	
1	Asignatura	Subject
2	Informática	ICT / computing
3	Dibujo	Art
4	Idiomas	Languages
5	Empresariales	Business
6	Útil / inútil	Useful / useless
7	Explica bien las cosas	He / she explains things well
8	Enseña bien	He / she teaches well
9	Soy fuerte / flojo	I am strong / weak
10	Saco buenas notas	I get good grades
11	Instalaciones	Facilities
12	Aulas	Classrooms
13	Un comedor	A canteen
14	Una biblioteca	A library
15	Pizarras interactivas	Interactive whiteboards
16	Un salón de actos	An assembly hall
17	Llegar	To arrive
18	Empezar	To start
19	Durar	To last
20	Aprender	To learn
21	Enseñar	To teach

B	Vocabulary	
1	Terminar	To finish
2	Volver	To come back
3	Hacer una obra de teatro	To perform a play
4	Ir de excursión	To go on a trip
5	Tocar en un concierto	To play in a concert
6	Ganar un premio	To win an award
7	Las reglas / normas	The rules
8	Ser puntual	To be punctual / to be on time
9	Ser agresivo / grosero	To be aggressive / rude
10	Lo bueno / malo es que...	The good / bad thing is that ...
11	Hay acoso escolar	There is school bullying
12	Hay presión de grupo	There is peer pressure
13	Castigos	Punishments
14	Miedo a suspender	Fear of failing
15	Alpinismo	Climbing
16	Vela	Sailing
17	Pasear	To go for a walk
18	Equitación	Horse riding
19	Billar	Snooker
20	Patinaje	Skating
21	Footing	Jogging

Year 10 – GCSE Sport Science: Badminton – Cycle One

A Badminton		
1	Ace	A serve that the opponent fails to hit
2	Clear	A shot hit deep into the opponent's court
3	Drop shot	A shot that just clears the net and then drops sharply
4	Fault	A foul shot, such as one that hits the net or lands outside the court
5	Lob	A shot that is hit in a high arc, usually over the opponent's head
6	Net shot	A shot hit from the forecourt that just clears the net and drops sharply
7	Passing shot	A shot which passes the opponent
8	Service court	The area into which you must deliver the shuttle during the service
9	Shuttlecock	The object that is struck back and forth in badminton, consisting of a feathered cork head and a plastic crown
10	Smash	A powerful overhead shot

B Court Lines	
1	Long service line for doubles
2	Side line for doubles
3	Short service line
4	Centre line
5	Side line for singles
6	End line and long service line for singles



Year 10 – GCSE Sport Science: Table Tennis – Cycle One

A Technical Terminology		
1	Chop	A defensive return of a topspin stroke played with backspin, usually well away from the table
2	Drive	A stroke played close to the table with your racket arm moving forward and slightly upwards in the direction that the ball is going to travel
3	Drop shot	A shot which drops very short over the net on your opponent's side of the table
4	Push	A backspin shot usually executed over the playing surface
5	Ready position	A neutral starting position from which all table tennis strokes can be played
6	Smash	An aggressive shot hit with speed, often in response to a high bouncing return
7	Stroke	Any shot used by a player in a game

B Rules		
1	Double bounce	When the ball bounces twice on one side of the table before a return is made, causing that player to lose the point
2	Let serve	If the ball touches the net, provided the service is otherwise good, the serve is replayed, or, if your opponent is not ready, the serve is replayed
3	Volley	Hitting the ball before it bounces on your side of the table

C Terminology		
1	Cross-court	A stroke that's hit diagonally from corner to corner
2	Deuce	A term used when the score is 10-10
3	Heavy	Used to describe excessive spin
4	Paddle	An alternative name for the racket

Year 10 – GCSE Sport Science: Component 1 – Cycle One

A	Classification of Bones	
1	Long bones	Aid movement by working as levers
2	Short bones	Are weight bearing and provide support
3	Flat bones	Provide protection and a broad surface for muscles to attach to
4	Irregular bones	Provide protection and a place for muscle attachment

B	Joint Actions	
1	Flexion	When the angle at a joint <u>decreases</u>
2	Extension	When the angle at a joint <u>increases</u>
3	Abduction	The movement of a limb <u>away</u> from the midline of the body
4	Adduction	The movement of a limb <u>towards</u> the midline of the body
5	Rotation	When the bone at a joint moves around its own axis making a circular movement
6	Circumduction	360° degree movement at the ball and socket joint in the shape of a cone
7	Plantar-flexion	Movement of the foot downwards when you point your toes
8	Dorsi-flexion	Movement of the foot upwards towards the shin

C	Muscular System	
1	Ligaments	Role is to join bone to bone
2	Tendons	Role is to join muscles to bone
3	Cardiac muscle	A muscle that is unconsciously controlled where we don't have to think to make it contract
4	Voluntary muscle	Muscles under our conscious control and we move them when we want to

D	Muscles	
1	Antagonistic pairs	Muscles work together where one muscle contracts and another relaxes to create movement
2	Biceps	Their role is flexion of the arm at the elbow
3	Triceps	Their role is extension of the arm at the elbow
4	Quadriceps	Their role is extension of the leg at the knee
5	Hamstring	Their role is flexion of the leg at the knee
6	Gastrocnemius	Their role is plantar-flexion at the ankle
7	Tibialis anterior	Their role is dorsi-flexion at the ankle
8	Hip flexors	Their role is flexion of the leg at the hip
9	Gluteus maximus	Their role is extension of the leg at the hip

Year 10 – GCSE Sport Science: Component 1 – Cycle One

E	Muscular System Exercise Effects	
1	Muscle fatigue	When the efficiency of the muscles drop, reducing the level of performance
2	Lactate	A chemical formed through anaerobic respiration
3	Lactate accumulation	When the levels of lactate start to build up in the muscle tissue or blood

F	Muscle Fibres	
1	Type 1	Slow twitch muscle fibre suited to low aerobic work as they can be used for a long period of time without fatiguing
2	Type IIa	Fast twitch muscle fibre which can be improved through endurance training to increase their resistance to fatigue
3	Type IIx	Fast twitch muscle fibre used in anaerobic work which can generate much greater force but fatigues quickly

G	Components of Blood	
1	Red blood cells	Carry oxygen and remove carbon dioxide
2	Plasma	Transports the blood cells, platelets and nutrients to the different parts of the body
3	Platelets	Help prevent bleeding as they can stick to each other and to the walls of the blood vessels
4	White blood cells	Help fight infection

H	Cardio-respiratory System	
1	Heart rate (HR)	The number of times the heart beats per minute
2	Stroke volume (SV)	The amount of blood leaving the heart each beat
3	Cardiac output	HR X SV, the amount of blood leaving the heart each minute
4	Breathing rate	The number of breaths per minute
5	Recovery rate	The time it takes for heart rate to return to resting rate
6	Respiration	The process of energy production
7	Energy sources	The macronutrients that provide energy

I	Blood Vessels	
1	Arteries	Carry blood at high pressure away from the heart
2	Capillaries	Links smaller arteries with smaller veins, carrying blood at low pressure
3	Veins	Carry blood at low pressure towards the heart

J	Vascular Shunting	
1	Vascular shunting	Blood that is diverted away from inactive areas to the working muscles
2	Vasoconstriction	Blood vessels are constricted (squeezed) to make them smaller
3	Vasodilation	Blood vessels are dilated to make them bigger

Year 10 – BTEC Sport: Unit One (Fitness for Sport and Exercise) – Cycle One

A 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, 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

B Components of Skill-related Fitness		
1	Balance	The ability to maintain centre of mass over a base of support
2	Coordination	The ability to use two or more body parts at the same time
3	Power	Strength x speed
4	Agility	How quickly you can change the position of your body, while keeping it under control
5	Reaction time	The time it takes to respond to a stimulus

C Exercise Intensity		
1	Maximum heart rate	$220 - \text{age} = \text{MHR}$
2	Aerobic training zone	60 – 85% of your maximum heart rate
3	Anaerobic training zone	85 – 95% of your maximum heart rate
4	BORG's scale	$\text{RPE} \times 10 = \text{HR}$
5	RPE	Rating of Perceived Exertion

D Principles of Training		
1	F.I.T.T	<ul style="list-style-type: none"> • <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	Progressive overload	Making training steadily harder, to gradually improve fitness
3	Individual needs	Matching the training to the requirements of the individual person
4	Specificity	Matching the training to the particular requirements of an activity
5	Adaptation	Body adapts (changes) in response to training
6	Reversibility	Any improvements or changes that take place will be reversed when you stop training
7	Variation	Training must be varied to avoid boredom

Year 10 – BTEC Sport: Unit One (Fitness for Sport and Exercise) – Cycle One

E	Methods of Training – Flexibility Training	
1	Static stretching	Stretching while standing still
2	Active stretching	Stretching on your own
3	Passive stretching	Stretching with someone / thing else
4	Ballistic stretching	Where the performer makes fast jerky movements through the complete range of motion
5	PNF stretching	Stretching performed with a partner or an object, used to develop mobility, strength and flexibility

F	Aerobic 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

G	Speed Training	
1	Hollow sprints	A series of sprints separated by a 'hollow' period of jogging or walking
2	Acceleration sprints	Pace gradually increases from a standing / rolling start to jogging, then striding, and then to a maximum sprint
3	Interval training	Individual performs a work period followed by a rest or recovery period

H	Strength, Muscular Endurance and Power Training	
1	Circuit training	A combination of six or more exercises performed with short rest periods between them
2	Plyometrics	Training that develops explosive power and strength
3	Free weights	The use of barbells or dumb-bells to perform dynamic exercises
4	Strength training	High load and low repetitions
5	Endurance training	Low load and high repetitions
6	1 RM	One repetition max
7	Strength endurance	50-60% of 1 RM and 20 repetitions
8	Elastic strength	75% of 1 RM and 12 repetitions
9	Maximum strength	90% of 1 RM and 6 repetitions

I	Fitness Test Measurements	
1	BMI	Measured in kg/m ²
2	Multi-stage fitness test	Measured in ml/kg/min
3	Grip dynamometer	Measured in KgW
4	Vertical jump test	Measured in kgm/s
5	Illinois agility test	Measured in seconds
6	Sit up / press up tests	Measured in repetitions
7	Sit and reach test	Measured in cm

Year 10 – Travel and Tourism: Factors Affecting Global Travel and Tourism – Cycle One

A	Key Terms	
1	Tourist	People who travel for leisure
2	Leisure	For fun or enjoyment
3	Economic	To do with money and jobs
4	Recession	A slowdown in economic activity
5	Disposable income	Money a person has left over after paying their bills
6	Legislation	Laws by governments
7	Regulations	Rules by other groups
8	Visa	A passport stamp allowing people into a country
9	Tax incentive	Encouraging people to do something by reducing their taxes
10	Civil unrest	When people in a country are divided over something
11	Natural disaster	A natural event that causes death and destruction
12	Infrastructure	Structures that help areas function

B	Key Terms	
1	Repatriation	Returning someone to their home country
2	FCO	Foreign and Commonwealth Office
3	Pandemic	A worldwide spread of disease
4	Cholera	A disease caught from drinking unclean water
5	Zika virus	A disease which harms unborn babies
6	Operational	To do with the way things are run
7	Hedging	When companies pay to protect from uncertainty
8	Local government	People responsible for a small area, like a town
9	Regional government	People responsible for a large area in a country
10	National Government	People responsible for the whole country
11	Raise awareness	To make sure people know about a problem
12	The Red Cross	A voluntary group who provide international help

Year 10 – Travel and Tourism: Impact of Travel and Tourism and Sustainability – Cycle One

A	Key Terms	
1	Social impacts	Effects on people in society
2	Cultural awareness	Knowing about other cultures
3	Facilities	Places that people use such as hospitals and schools
4	Trade unions	An organisation of workers who protect their rights
5	Profit leakage	When money made doesn't stay in the country
6	Multiplier effect	When one positive thing leads to another positive thing
7	Air pollution	When the air is unclean, often because of CO ₂
8	Noise pollution	When people make too much noise
9	Degradation	When something becomes less good
10	Erosion	When an area is slowly worn away
11	Congestion	When there is too much traffic
12	Conservation	To protect something that is valuable
13	Regeneration	Improving an area that no longer looks good
14	Sustainability	Minimising damage to something so it can continue for a long time

B	Key Terms	
1	Social sustainability	Protecting the future needs of local people
2	Environmental sustainability	Protecting the future needs of the environment
3	Economic sustainability	Protecting the future economy
4	Partnership projects	When different stakeholders work together
5	Tourist taxes	Extra money that tourists have to pay
6	Rickshaw	A small two-wheeled vehicle pulled by a bike or person
7	Retaining visitors	To keep visitors coming back
8	Multinational companies	Big companies that operate in more than one country
9	Park and ride	People park in a carpark and get a bus to the area
10	Brownfield sites	An area of land that was previously built on
11	Water stress	When an area doesn't have enough water
12	Biodegrade	Breaking down an object by bacteria
13	WWF	International organisation that conserves wildlife
14	Ecosystem	A community of plants and animals

Year 10 – Travel and Tourism: Destination Management – Cycle One

A	Key Terms	
1	Destination management	Management of all the parts that make up a tourist destination
2	Butler's Tourism Area Lifecycle	A model showing how tourist destinations change
3	Exploration	When small numbers of tourists visit an area
4	Involvement	When local people introduce facilities for tourists
5	Development	When larger organisations create bigger facilities
6	Consolidation	When tourism is embedded in the local area
7	Stagnation	When visitor numbers no longer go up (or down)
8	Decline	When visitor numbers fall dramatically
9	Rejuvenation	Restoring or improving the area to attract tourists
10	Niche market	A small market for a particular tourism product
11	Emerging destination	A place that has become popular in the last 10 years
12	Mature destination	A place that has been popular for over 20 years

B	Key Terms	
1	Mass tourism	Tourism involving large groups of tourists
2	Seasonal employment	When people only have jobs in the tourist season
3	Seaports	A place where ships can unload their cargo
4	Hubs	A central location used for transport
5	Connectivity	The ability to communicate with electronic devices
6	Return on investment	When people get back the money they invested
7	Zero-hours contracts	When a worker isn't guaranteed any hours of work
8	Tax credits	Extra money from government to support people who need it
9	Jobseeker's Allowance	Unemployment benefit for people looking for work
10	Public sector	Organisations funded and controlled by government
11	Private sector	Organisations controlled or owned by individuals
12	Voluntary sector	Organisations funded by membership and donations