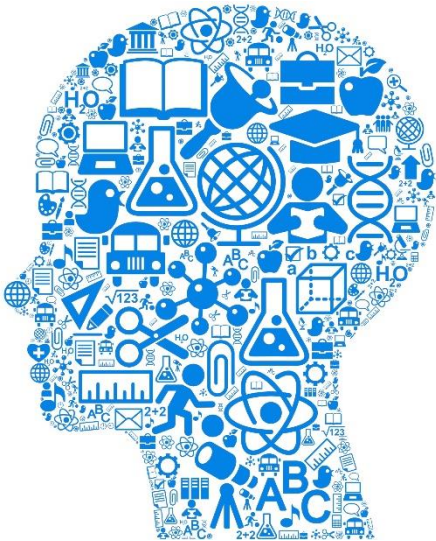


Year 11 | Cycle 1

100% Book



Tutor group:

Your 100% book and knowledge organisers

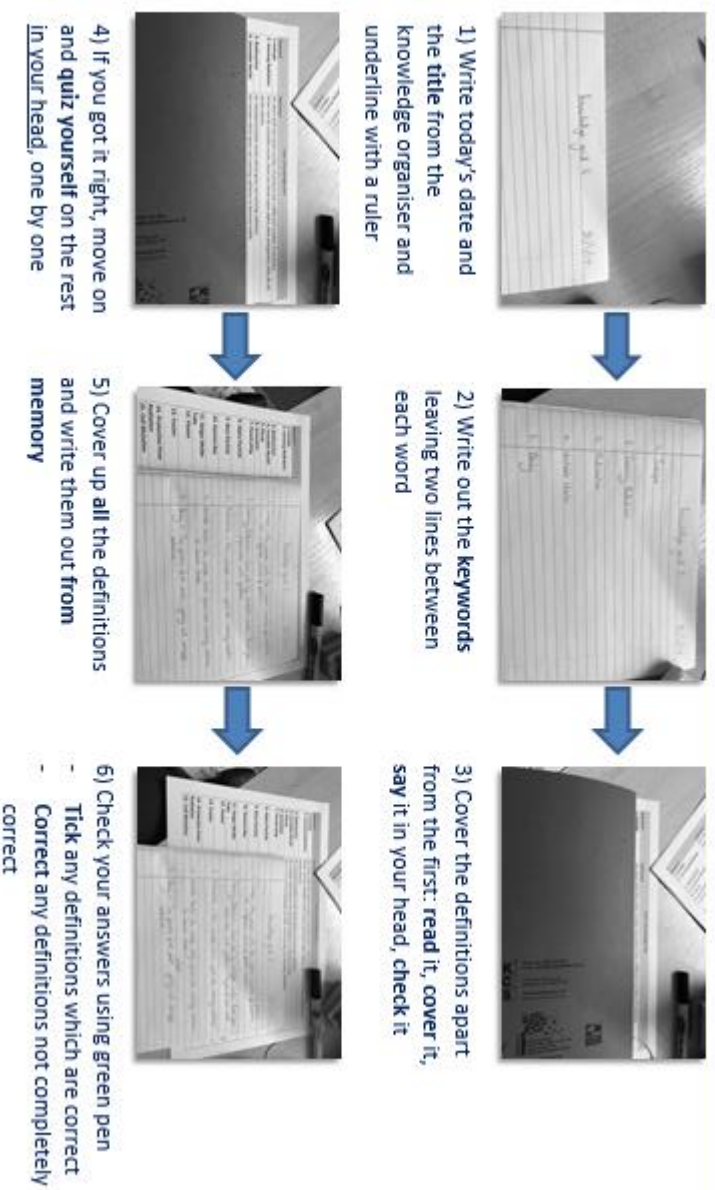
Knowledge organisers contain **critical** knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long-term.

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 11 – Art and Design – Cycle One

A	Art Terms One	
1	Value	How light or dark something is
2	Reductive drawing	Technique where darkness is laid onto paper and removed to show the light parts of an image
3	Oxidation	Combine chemically with oxygen
4	Chromosphores	An atom or group whose presence is responsible for the colour of a compound
5	Incise	Mark, scratch or decorate a surface with a cut or cuts
6	Intaglio	A design incised or engraved into a material
7	Monochrome	Artwork that only includes one colour
8	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	Brayer	Roller that is used in printmaking to evenly spread out ink
7	Offset	Transferring ink from a freshly printed page onto another surface
8	Invert	An image where up and down or left and right are reversed

Year 11 – Business GCSE: Section 6 – Finance – Cycle One

A	Key Terms	
1	Internal finance	Money raised from sources within the business
2	External finance	Money raised using sources outside the business
3	Forecasting	Predicting future outcomes using past data
4	Cash flow	Money flowing in and out of the business
5	Inflows	Money flowing into the business
6	Outflows	Money flowing out of the business
7	Net cash flow	Total inflows – total outflows
8	Fixed costs	Costs that do not change with output
9	Variable costs	Costs that change with output
10	Total costs	Fixed + variable costs
11	Revenue / Turnover	Price x quantity sold
12	Profit	Total revenue – total costs

B	Key Terms	
1	Break even	Revenue and costs are equal, so the business is not making loss or profit
2	Margin of safety	Actual output – break even output
3	Average rate of return	Average yearly profit / cost of investment x100
4	Statement of income	A statement showing a business' revenues and costs, thus profit or loss over time
5	Gross profit	Revenue – cost of sales Profit after taking away direct costs
6	Operating profit	Gross profit – overheads Profit after taking away both direct and indirect costs
7	Net profit	Operating profit – interest Profit after taking away all costs
8	Gross profit margin	Gross profit / revenue x 100
9	Net profit margin	Net profit / revenue x 100
10	Statement of position	Shows a business' financial situation at a given moment by comparing assets and liabilities
11	Liability	Money owed by the business which must be paid back
12	Asset	Items of value owned by the business, either in cash form or which can be turned to cash

Year 11 – Business GCSE: Section 5 – Marketing – Cycle One

A	Key Terms	
1	Customer needs	Desires that customers wish to satisfy when buying a product
2	After sales service	Continued support provided to customers after the purchase has been made
3	Market	Buying and selling of a particular type of product i.e., the smartphone market
4	Segmentation	Dividing markets into different groups of needs and wants
5	Market share	% of total sales in a market Sales of product / sales of market x100
6	Market growth	% change in market size Change in size / original size x100
7	Market research	Gathering and analysing data to support decision making
8	Qualitative data	Data based on opinions and attitudes
9	Quantitative data	Numerical data which can be statistically analysed
10	Primary research	Data gathered by the business itself
11	Secondary research	Data gathered previously by other organisations

B	Key Terms	
1	Marketing mix	The four Ps; the factors which influence customers' buying decisions
2	Price	Consideration of the price charged for the product based on different methods of pricing
3	Product	Design, features and functions of the product itself
4	Promotion	Different methods of communicating with the customer to raise awareness of the product
5	Place	Where products are sold and how products are distributed
6	Internal factors	Factors within the business that influence the marketing mix
7	External factors	Factors outside the business that influence the marketing mix
8	Promotional mix	The combination of promotional methods used by a business to communicate with customers
9	Product life cycle	The change in sales of a product over time
10	Extension strategies	Methods of maintaining the sales of a product to prevent it from decline
11	Boston Matrix	A tool used to categorise the products of a business by market share and market growth
12	Distribution channels	The journey and ownership of a product from producer to consumer

Year 11 – Drama – Cycle One

A	Written Terms	
1	Intentions	What the playwright / director / actor hopes to achieve in their interpretation of a play
2	Social, cultural, historical context	Circumstances of the time the play is set in; it refers to the physical and social setting
3	Genre	Type of dramatic work, e.g. a comedy
4	Style	Manner in which piece is performed, e.g. physical style
5	Form	The structure of individual scenes
6	Themes	Main subject of the play, e.g. war
7	Staging	The way that acting and technical ideas come together to use the space
8	Subtext	The underlying and often unspoken thoughts and motives of characters – what they really think and believe

B	Performance Terms	
1	Vocal / verbal skills	Skills that focus on use of voice: pitch, pace, pause, intonation, emphasis, tone
2	Physical / non-verbal skills	Skills that focus on use of body: gesture, posture, facial expression, eye contact, gait, proxemics
3	Character aims	What the character wants overall in the play
4	Character objectives	What the character wants to achieve in each moment of the play
5	Character actions	How the character gets what they want through a physical or vocal action

C	Key Exam Terms	
1	Describe	Give detail on performance or design, not plot
2	Explain	Give reasons why choices have been made
3	Analyse	Justify the impact of these choices linking to scenes and whole text / performance
4	Evaluate	Give personal opinion on how the performance made you feel and why

Year 11 – 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 11 – 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 11 – 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 11 - 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 11 – French – Cycle One

A	Vocabulary	
1	Goûter	To taste
2	Passer du temps	To spend time
3	Rester un hotel de 5 étoiles	To stay in a five-star hotel
4	Reserver des billets	To reserve tickets
5	Voir un spectacle	To see a show
6	Rater le vol / l'avion	To miss the flight / plane
7	Une chambre	A room
8	Prendre l'avion	To take the plane
9	Partir en vacances	To go on holiday
10	Monter dans l'avion	To get on the plane
11	S'installer	To settle
12	Offrir des cadeaux	To offer gifts
13	Recevoir un cadeau / de l'argent	To receive gifts / money
14	Se rencontrer	To meet
15	Chanter	To sing
16	Aider	To help
17	Dépenser de l'argent	To spend money
18	Faire la fête	To celebrate
19	Bonne année / anniversaire	Happy New Year / Birthday
20	Le réveillon	Christmas Eve
21	Joyeux Noel / Pâques	Happy Christmas / Easter

22	Le sapin de Noel	The Christmas tree
23	Le dinde	Turkey
24	Le canard	Duck
25	Le buche de Noël	Christmas chocolate cake

B	Phrases	
1	Je vais en vacances	I go on holiday
2	Je suis allé au Maroc	I went to Morocco
3	Il y avait	There was
4	Il y aurait	There would be
5	Il serait	It would be
6	Il y a du soleil	It's sunny
7	Il y avait du soleil	It was sunny
8	Il pleuvait	It was raining
9	Le lit	The bed
10	Les feux d'artifices	Fireworks
11	J'aimerais	I would like
12	Après avoir mangé / fait / vu	After having eaten / done / saw
13	Je serais ravi	I would be delighted
14	Une chambre d'hôtel	A hotel room
15	Un repas traditionnel	A traditional meal
16	Il faudrait / il faudra	It was necessary / it will be necessary

Year 11 – GCSE Geography: Resource Management (Energy) – Cycle One

A	Resource Management	
1	Biotic	Living things from the biosphere
2	Abiotic	Non-living things from the lithosphere, atmosphere, hydrosphere
3	Renewable	Naturally replenished
4	Non-renewable	Formation takes millions of years
5	Sustainable	An activity which does not consume or destroy resources or the environment
6	Groundwater	Water found underground in the cracks and spaces in soil, sand and rock
7	Aquifer	Underground layer of water-bearing permeable rock
8	Exploit	To use without considering sustainability
9	Overfishing	Fishing at unsustainable levels
10	Monoculture	Growing the same plant or crop in an area
11	NIMBY	People who agree with a policy but say “Not in My Backyard!”
12	Palm oil	A vegetable oil that comes from the fruit of oil palm trees, used in shampoo
13	Soil erosion	When top layer of soil is worn away

B	Energy Management	
1	Energy surplus	Countries that have more energy than they need
2	Energy deficit	Countries that have less energy than they need
3	Energy consumption	The total energy used by all human beings
4	Energy demand	The amount of energy required to meet the needs of the population
5	Energy security	A country that has enough energy to meet its demand
6	Energy efficiency	Using an energy resource to the best of its ability
7	Geothermal energy	A renewable energy source where heat from the Earth is used to create electricity
8	Biofuels	A renewable energy source where plant matter or waste animal matter is burned to produce electricity
9	Hydro-electric energy	A renewable energy source where water produces electricity by turning a turbine
10	Solar energy	A renewable energy source where energy from the Sun is captured by solar panels, producing electricity
11	Wind energy	A renewable energy source where wind produces electricity by turning a turbine
12	Fracking	A process of extracting oil and natural gas from underground shale rock
13	Fossil fuels	Non-renewable energy sources (coal, oil and gas) that produce CO ₂ when burned
14	Subsidence	When the ground under a house collapses and puts a strain on its structure
15	Carbon footprint	A measure of how much carbon is used by a person, company or country per year

Year 11 – GCSE Geography: Fieldwork and Enquiry (3.1) – Cycle One

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 the Environment Agency
6	Environment 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 11 – Health and Social Care BTEC – Cycle One

A	Health and Wellbeing	
1	Positive definition	Looks at how physically fit and mentally stable a person is
2	Negative definition	Looks at the absence of physical illness
3	Holistic definition	A combination of physical health and social and emotional wellbeing
4	Dominant allele	Will always express the characteristic
5	Recessive allele	Two alleles need to express the characteristic
6	Balanced diet	Contains the correct nutrients in the right proportions
7	Unbalanced diet	Does not contain the correct nutrients in the right proportions
8	Nicotine	The drug in tobacco that makes smoking addictive
9	Tar	Chemical that causes cancer, found in tobacco
10	Carbon monoxide	Causes decreased oxygenation
11	Personal hygiene	Keeping yourself clean
12	Social integration	Being part of a social group

B	Health and Wellbeing 2	
1	Social isolation	Being separated from society
2	Stress	The response caused by demands made on you
3	Fight or flight	The response to stress that enables us to respond instantly
4	Wealth	Having lots of money and goods
5	Social class	A broad group in society having the same social or economic status
6	Material possessions	The objects that can be bought but are not essential
7	Pollution	Act of introducing harmful substances or irritants
8	Rural lifestyle	Living in the countryside where there is fresh air
9	Urban lifestyle	Living in the city where there is more pollution
10	Self-esteem	How good or bad an individual feels about themselves
11	Imprisonment	Being in prison
12	Bereavement	Grieving for the death of a life partner, parent, child

Year 11 – History: Elizabeth – Cycle One

A	Elizabethan Government	
1	Coronation	A ceremony where the new monarch is crowned as king or queen
2	Royal progresses	A tour of their kingdom by a monarch
3	Royal Court	The place and employees where the monarch lives and carries out his / her duties
4	Courtier	A person who attends the Royal Court
5	Factions	Rival groups in the Royal Court
6	Patronage	A system used by the queen to reward loyal supporters with land and titles
7	Privy Council	A small group of advisors chosen by Elizabeth to advise her
8	Local government	The use of local officials to help keep control of different parts of the country
9	Lord lieutenant	A wealthy noble who acted as a direct link between the queen and a local government
10	JPs (Justices of the peace)	A local government official who was responsible for maintaining law and order
11	Parish constable	A local official who enforced law and order
12	Parliament	The group of officials who passed Acts of Parliament and raised taxes
13	Marian debt	The debt left over from Mary I's reign

B	Lifestyles of the Rich and Poor	
1	Social hierarchy	A society's categorisation of its people into groups based on wealth and power
2	Nobility	The highest social class who owned land and had titles
3	Gentry	The group of people below the nobility in the social hierarchy and who were lesser landowners
4	Tenant farmer	Members of the lower class who rented their farms from the nobility and gentry
5	Unskilled labourers	Members of the lower class who were seasonal workers
6	Vagrant / vagabond	Someone who was unemployed and homeless, and wandered around the country in search of work
7	Rural depopulation	When people leave the countryside and move to urban areas
8	Impotent poor	Vagrants who were unable to work due to age or disability
9	Able-bodied poor	Vagrants who were physically able to work
10	Poor Laws	Several Acts of Parliament that were passed during Elizabeth's reign to deal with issues of poverty and vagrancy
11	Poor relief	Financial assistance given to the poor from local governments
12	Poor rate	A local tax collected by the JPs to finance the poor relief
13	Almshouse	A house founded by charity offering accommodation for poor people

Year 11 – History: Elizabeth – Cycle One

C	Popular Entertainment	
1	Cruel / blood sports	A sporting event where spectators would gamble and watch animals fight to the death
2	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
3	Strolling players / wandering bands	Groups of actors that would travel the country performing plays
4	Theatre companies	Groups of actors who were supported financially by wealthy noblemen
5	The pit	Standing area of the theatre for poor spectators

D	The Religious Settlement	
1	Catholics	Christians who supported the authority of the Pope in Rome
2	Protestants	Christians who challenged the authority of the Pope and wanted to reform the church
3	Puritans	Strict Protestants
4	Religious settlement / Middle Way	Elizabeth's changes to religion as a compromise for Catholics and Protestants
5	Clergy	People who perform religious duties in the church
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 made all church services across England the same
8	Vestments	Robes that Catholic clergy wore
9	Royal injunctions 1559	A set of instructions for the clergy to establish uniformity for worship in their congregations
10	Archbishop	The head bishop responsible for other bishops
11	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 church services of the Church of England
2	Jesuits	Catholic priests who came to England from Rome to spread Catholicism
3	Mary, Queen of Scots	The former Catholic Queen of Scotland and relative of Elizabeth
4	Rebellion of the Northern Earls 1569	A rebellion in northern England led by Catholic nobles
5	Excommunication 1570	The formal exclusion, by the Pope, of Elizabeth as a member of the Catholic church
6	Papal Bull	An official order by the pope
7	Ridolfi Plot 1571	The first Catholic plot to overthrow Elizabeth and replace her with Mary, Queen of Scots involving Ridolfi, the Duke of Norfolk, Spain and the pope
8	Throckmorton Plot 1583	The second Catholic plot to overthrow Elizabeth and replace her with Mary, Queen of Scots involving Throckmorton, France, Spain and the pope
9	Babington Plot 1586	The final Catholic plot to overthrow Elizabeth and replace her with Mary, Queen of Scots involving Babington, Spain and Mary, Queen of Scots

Year 11 – History: Elizabeth – Cycle One

F	The Spanish Armada	
1	Philip II	The Catholic King of Spain
2	Armada	A fleet of warships
3	Spanish Netherlands	The Netherlands that was Protestant, but was controlled by Catholic Spain
4	Treaty of Nonsuch	A treaty that made Elizabeth the protector of the Dutch Protestants
5	Privateers	Private sea men that had special permission from the monarch to attack and steal from other countries' ships
6	Galleon	A Spanish warship
7	English Channel	The waters between the south of England and the north of France
8	Warning beacons	Huge torches that warned of invasion
9	Calais	A port on the northern coast of France
10	Fireships	Small empty boats that are set on fire and sent towards enemy ships

G	The Puritan Threat	
1	Moderate Puritans	Puritans who wanted to make more Puritan reforms to the Religious Settlement
2	Presbyterian	Puritans who wanted more Puritan reforms and the abolition of bishops
3	Separatists	The most radical Puritans who wanted to break away from the Church of England and create independent Puritan churches
4	Propheysings	Puritan Bible meetings
5	Brownists	A group of Puritan separatists who followed Robert Browne
6	Marprelate Tracts 1588	Anonymous separatist pamphlets that attacked the Church of England using foul language
7	Act Against Seditious Sectaries 1593	A law allowing anyone accused of being a separatist to be executed

Year 11 - Foundation Maths - Cycle One

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	$\frac{1}{a^2}$	$\frac{1}{a^2}$
7	$\frac{1}{a^3}$	$\frac{1}{a^3}$

B: Types of Numbers

1	Square numbers	1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, ...
2	Cube numbers	1, 8, 27, 64, 125, 216, 343, 512, 729, 1000...
3	Prime numbers	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, ...
4	Fibonacci	0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

C: Percentages

1	Multiplier for increase of n%	100 + n, then divide by 100
2	Multiplier for decrease of n%	100 – n, then divide by 100
3	Percentage change	$\frac{\text{Actual change}}{\text{Original amount}} \times 100$
4	Compound growth and decay	Starting amount \times multiplier ⁿ where n is the number of years

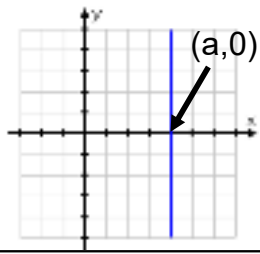
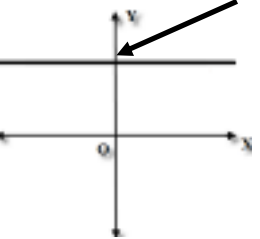
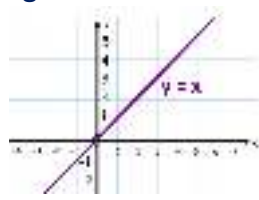

D: Averages & Range



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 number
4	Range	Largest number – smallest number


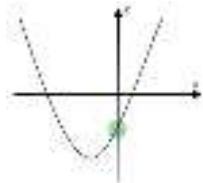

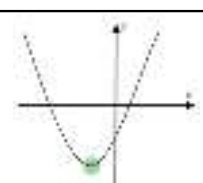
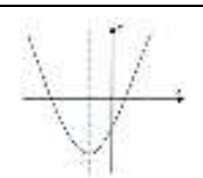
E: Conversions

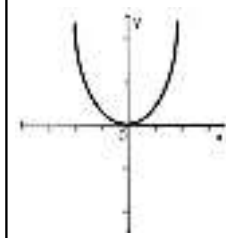
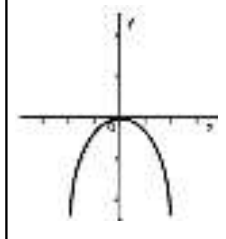
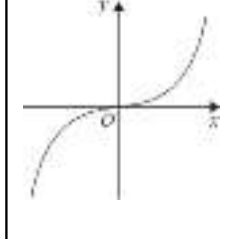
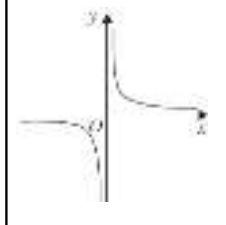
1	km \rightarrow m	$\times 1000$
2	km ² \rightarrow m ²	$\times 1000^2$
3	km ³ \rightarrow m ³	$\times 1000^3$
4	cm \rightarrow mm	$\times 10$
5	cm ² \rightarrow mm ²	$\times 10^2$
6	cm ³ \rightarrow mm ³	$\times 10^3$
7	1 litre = ____ ml	1 l = 1 000 ml
8	1 litre = ____ cm ³	1 l = 1 000 cm ³
9	1 tonne = ____ kg	1 t = 1 000 kg
10	1 kilogram = ____ g	1 kg = 1 000 g
11	1 gram = ____ mg	1 g = 1 000 mg

Year 11 - Foundation Maths - Cycle One




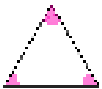




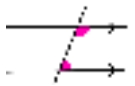
F: Straight Line Graphs		
1	$x = a$	Vertical 
2	$y = a$	Horizontal 
3	$y = x$	Diagonal 
4	$y = -x$	Diagonal 

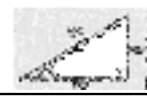



G: Coordinates and Equations of Straight Lines		
1	Formula for midpoint of (x_1, y_1) and (x_2, y_2)	$(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2})$
2	Equation of a straight line	$y = mx + c$
3	Gradient in the equation of a straight line	m
4	Y-intercept in the equation of a straight line	c
5	Formula for gradient 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
H: Compound Measures		
1	SDT Triangle	
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

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








J: Further Graphs		
1		$y = x^2$
2		$y = -x^2$
3		$y = x^3$
4		$y = \frac{1}{x}$







Year 11 - Foundation Maths - Cycle One

K: Information Needed for Transformations		
1	Rotation	Angle, direction, centre of rotation
2	Reflection	Line of symmetry
3	Translation	Vector
4	Enlargement	Scale factor, centre of enlargement
L: Angle Facts		
1		Angles on a straight line add up to 180°
2		Angles around a point add to 360°
3		Vertically opposite angles are equal
4		Angles in a triangle add up to 180°
5		Angles in a quadrilateral add up to 360°
6		Base angles in an isosceles triangle are equal
7		Corresponding angles are equal
8		Alternate angles are equal
9		Co-interior angles add up to 180°









L: Angle Facts		
10	Sum of interior angles	$(n - 2) \times 180$
11	Each interior angle in a regular polygon	$\frac{(n - 2) \times 180}{n}$
12	Each exterior angle in a regular polygon	$\frac{360}{n}$
13	Interior + exterior angle	180
14	Number of sides in a regular polygon	$\frac{360}{\text{exterior angle}}$
M: Right-angled Triangles		
1	Pythagoras' theorem (longer)	$a^2 + b^2 = c^2$
2	Pythagoras' theorem (shorter)	$c^2 - a^2 = b^2$
3	Hypotenuse	The longest side, opposite the right angle (c in Pythagoras' theorem)
4	Adjacent	The side next to the given angle
5	Opposite	The side opposite the given angle
6	Labelled Triangle	
7		$\sin x = \frac{\text{Opposite}}{\text{Hypotenuse}}$
8		$\cos x = \frac{\text{Adjacent}}{\text{Hypotenuse}}$
9		$\tan x = \frac{\text{Opposite}}{\text{Adjacent}}$

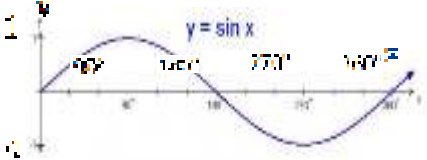
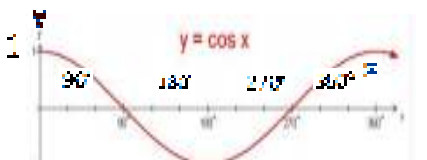
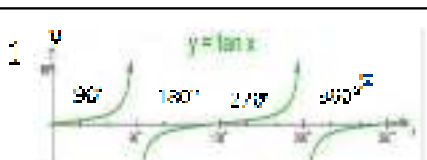
Year 11 - Foundation Maths - Cycle One

N: Area		
1	Rectangle	$l \times w$
2	Parallelogram	$b \times h$
3	Triangle	$\frac{b \times h}{2}$
4	Trapezium	$\frac{1}{2}(a + b)h$
O: Circles		
1		Radius
2		Diameter
3		Circumference
4		Chord
5		Tangent
6		Sector
7		Arc
8	Diameter	$Radius \times 2$
9	Area of a circle	πr^2
10	Circumference	$2\pi r$ or πd

O: Circles		
11	Area of a sector	$\frac{\theta}{360} \times \pi r^2$
12	Arc length	$\frac{\theta}{360} \times \pi d$
P: 3D Shapes		
1	Face	The flat surface of a solid shape
2	Edge	The side of a shape where two faces meet
3	Vertex	The corner of a shape where two or more edges meet
4	Surface area of cuboid 	$2lw + 2hw + 2lh$
5	Surface area of cylinder 	$2\pi r^2 + \pi dh$
6	Volume of cuboid 	$l \times w \times h$
7	Volume of prism 	$Area\ of\ cross - section \times length$
8	Volume of cylinder 	$\pi r^2 h$
9	Volume of pyramid 	$\frac{1}{3} \times area\ of\ base \times height$


Year 11 - Higher Maths - Cycle One

A: Graph Transformations		
1	Translation $\begin{pmatrix} a \\ 0 \end{pmatrix}$	$f(x) \rightarrow f(x - a)$
2	Translation $\begin{pmatrix} 0 \\ b \end{pmatrix}$	$f(x) \rightarrow f(x) + b$
3	Reflection in the y axis	$f(x) \rightarrow f(-x)$
4	Reflection in the x axis	$f(x) \rightarrow -f(x)$
B: Circles Theorems		
1		The angle in a semi-circle is 90°
2		The angle at the centre is twice the angle at the circumference
3		Angles in the same segment are equal
4		Opposite angles in a cyclic quadrilateral add up to 180°
5		The angle between the radius and the tangent is 90°
6		Alternate segment theorem
7		The tangents to a circle from the same point are equal
8		The radius through the midpoint of the chord will bisect the chord at 90°

C: Further Trigonometry		
1	Sine rule (finding angle)	$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$
2	Sine rule (finding length)	$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$
3	Cosine rule (finding angle)	$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$
4	Cosine rule (finding length)	$a^2 = b^2 + c^2 - 2bc \cos A$
5	Area of a triangle	$\frac{1}{2} ab \sin C$
D: Trigonometric Graphs		
1	Sin graph	
2	Cos graph	
3	Tan graph	

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

Year 11 - Higher Maths - Cycle One

F: Statistics		
1	Median from a list of numbers	The number which is in the $\frac{n+1}{2}$ th position
2	Lower quartile from a list of numbers	The number which is in the $\frac{n+1}{4}$ th position
3	Upper quartile from a list of numbers	The number which is in the $\frac{3(n+1)}{4}$ th position
4	IQR	Upper quartile – lower quartile
5	Frequency density triangle	
6	Frequency =	Frequency Density x Class Width
7	Frequency density =	Frequency ÷ Class Width
8	Histogram	Height of bars is frequency density
9	Frequency polygon	Plot (midpoint, frequency) and join with straight lines using a ruler
10	Cumulative frequency	Plot (endpoint, frequency) and join with a curved line

G: Proof		
1	Even number	2n
2	Odd number	2n + 1
3	Consecutive numbers	n, n+1, n+2
4	Consecutive even numbers	2n, 2n+2, 2n+4
5	Consecutive odd numbers	2n+1, 2n+3, 2n+5
6	Two different even numbers	2n and 2m
7	Two different odd numbers	2n+1 and 2m+1
H: Index Laws		
1	a^{-n}	$\frac{1}{a^n}$
2	$\frac{1}{a^n}$	$\sqrt[n]{a}$
I: Quadratic Sequences		
1	nth term	$an^2 + bn + c$
2	2 nd difference	2a
3	2 nd term – 1 st term	3a + b
4	1 st term	a + b + c

J: Functions		
1	$f^{-1}(x)$	Inverse function
2	$f(g(x))$	Composite function
K: Quadratic Formula		
1	Form of equation to solve with quadratic formula	$ax^2 + bx + c = 0$
2	Quadratic formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
L: Similar Shapes		
1	Area scale factor	(Length scale factor) ²
2	Volume scale factor	(Length scale factor) ³

Year 11 – Media BTEC – Cycle One

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	The 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' POV one after another

Year 11 – GCSE Religious Studies: Christianity – Cycle One

A	Beliefs and Teachings	
1	Omnibenevolent [2]	The state of being all-loving and infinitely good
2	Omnipotent [2]	All-powerful, almighty and unlimited
3	Omniscient	All-knowing
4	Transcendent	Outside of the universe
5	Trinity [2]	The three persons of God: Father, Son and Holy Spirit
6	Incarnation [2]	God becoming human in the form of Jesus
7	Atonement [2]	The belief that Jesus' death on the cross healed the rift between humans and God
8	Resurrection [2]	The belief that Jesus rose from the dead on Easter Sunday, conquering death
9	Monotheism	The belief in one God
10	The Apostles' Creed	A prayer which recites key Christian beliefs
11	Ascension	When Jesus rose into heaven after his resurrection
12	Salvation	Saving from sin and its consequences

B	Practices	
1	Liturgical worship	When worship follows a set structure or pattern
2	Informal worship	Spontaneous worship
3	Individual worship	Personal worship alone
4	Set prayers	Established prayers that are memorised and used, e.g. the Lord's Prayer
5	Extemporaneous prayers	Non-formulaic, spontaneous prayers
6	Informal prayers	Uses informal, colloquial language when praying
7	Sacraments [2]	An outward sign of an invisible and inward blessing by God
8	Baptism	A ceremony which symbolises purification, regeneration or admission in to the Church
9	Eucharist	A sacrament commemorating the Last Supper, in which bread and wine is blessed and eaten
10	Christmas	Celebration remembering Jesus' birth
11	Easter	Celebration remembering Jesus' death and resurrection
12	Ecumenical	Promoting worldwide Christian unity
13	Pilgrimage	A journey to a place of religious significance
14	Evangelism [2]	Preaching the gospel to others to convert them to the Christian faith

Year 11 – GCSE Religious Studies: Islam – Cycle One

A	Beliefs and Teachings	
1	Islam	‘Submission’ or ‘peace’
2	Tawhid [2]	The belief in the oneness of God
3	Shirk	The sin of worshipping something else other than God
4	Fitrah	The natural instinct all humans have, from birth, to know and worship God
5	Taqwa	Having an awareness of God
6	Muhammad	The final prophet who the Qur’an was revealed to
7	Prophethood / Risalah [2]	Messengers of God, beginning with Adam and ending with Prophet Muhammad
8	Hanif	Anybody who believed in Tawhid before Prophet Muhammad
9	Malaikah	Angels
10	Qur’an	The Muslim holy book
11	Sunnah	The record of all that Muhammad said and did
12	Hadith	The sayings of the Prophet Muhammad
13	Shari’ah [2]	The straight path; Shari'ah Law is the set of moral and religious principles set out by the Qur’an and Hadith
14	Halal [2]	Anything which is permitted in Islam, e.g. eating permitted foods
15	Haram [2]	Anything which is forbidden in Islam, e.g. eating forbidden foods
16	Al-Qadr	The belief that God has set out a divine plan for all things
17	Ummah [2]	Worldwide Muslim community who share a common religious identity
18	Sunni	A sect of Islam; ‘one who follows the Sunnah’
19	Shi’a	A sect of Islam; ‘From the house of Ali’

B	Practices	
1	Mosque [2]	A place of prostration for Muslims, a communal place of worship
2	Ibadah	Acts of worship
3	Shahadah	The declaration of faith which states ‘there is no God but Allah and Muhammad is his prophet’
4	Salah	Prayer, five times a day
5	Zakah	Charity, 2.5% of one's annual wealth
6	Sadaqah	Any voluntary good deed done on top of Zakah
7	Khalifah	Steward or caretaker
8	Sawm	Fasting during the month of Ramadan
9	Hajj	Pilgrimage to Makkah
10	Ihram	A state of purity
11	Jihad [2]	To strive or struggle. There are two forms of jihad: greater and lesser
12	Greater Jihad	Daily, inner and spiritual struggle to become a better Muslim
13	Lesser Jihad	A physical struggle or holy war in defence of Islam
14	Id-ul-Adha	Festival of sacrifice
15	Id-ul-Fitr	A festival to celebrate the end of Ramadan
16	Ashura (Sunni)	A day of fasting to commemorate Moses' parting of the Red Sea
17	Ashura (Shi’a)	A day of sorrow where Shi'as remember the martyrdom of Husayn

Year 11 – 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 11 – GCSE Religious Studies: Issues of Good and Evil – Cycle One

A	Key Terms	
1	Good [2]	That which is considered morally right, beneficial and to our advantage
2	Evil [2]	That which is considered extremely immoral, wicked and wrong
3	Forgiveness [2]	To grant pardon for a wrongdoing
4	Free will [2]	The ability to make choices, voluntarily or independently
5	Justice [2]	Fairness; where everyone has equal provisions and opportunity
6	Morality [2]	Principles and standards determining which actions are right or wrong
7	Punishment [2]	A penalty given to someone for a crime or wrong they have done
8	Sin [2]	Deliberate immoral action, breaking a religious or moral law
9	Suffering [2]	Pain or distress caused by injury, illness or loss
10	Conscience	An inner voice that guides a person in moral decision making
11	Absolute morality	When a person has a principle and never alters it
12	Relative morality	When a person holds a principle but is prepared to adapt or change it in certain situations

B	Key Terms	
1	Restorative justice	Enabling criminals to make amends for their behaviour by meeting a victim and apologising
2	Reconciliation	Accepting an apology, forgiving and moving on
3	Parole officer	A person who supports a prisoner on their release from prison
4	Chaplain	Provides pastoral care and religious guidance for prisoners
5	Humane	Showing kindness and compassion
6	Capital punishment	Death penalty
7	Moral evil	Evil caused by human actions
8	Natural evil	Evil caused by natural events
9	Problem of evil	If God is loving and powerful, how can evil exist?
10	Theodicy	An argument which protects God against the problem of evil

Year 11 – GCSE Religious Studies: Issues of Human Rights – Cycle One

A	Key Terms	
1	Censorship [2]	The practice of suppressing and limiting access to materials considered to be offensive, or a threat to security
2	Discrimination [2]	Acts of treating groups of people, or individuals differently, based on prejudice
3	Prejudice [2]	Pre-judging people to be inferior or superior without cause
4	Extremism [2]	Believing in and supporting ideas that are very far from what most people consider correct or reasonable
5	Human rights [2]	The basic entitlements of all human beings, given to them because they are human
6	Personal conviction [2]	Something a person strongly feels or believes in
7	Relative poverty [2]	A standard of poverty measured in relation to the standards of a society in which a person lives
8	Absolute poverty [2]	An acute state of deprivation, whereby a person cannot access the most basic human needs

B	Key Terms	
1	Social justice [2]	Promoting a fair and just society by challenging injustice and valuing diversity
2	Agape	Selfless, unconditional love
3	Liberation theology	Thinking that God has the power to change situations in the world that are unjust
4	Religious expression	Expressing your faith through clothing, or other forms of public declaration
5	Marginalised	Put in a place of little importance
6	Racism	Prejudice and discrimination directed against someone of a different race
7	Fairtrade	Giving people a fair wage for their work
8	Christian Aid	A Christian charity which helps the poor, inspired by Christian values
9	Islamic Relief	A Muslim charity which helps the poor, inspired by Islamic values

Year 11 – Science: Biology Topic 5 – Homeostasis (Paper 2) – Cycle One

A	Homeostasis	
1	Homeostasis	Regulation of internal conditions for optimum activity in response to internal and external changes
2	Conditions that are controlled	Body temperature, blood glucose, water content of the body
2	Stimulus	A change in the environment
3	Receptor	Detects a stimulus
4	Effector	An organ that carries out a response (a muscle or a gland)
5	Hormone	A chemical messenger that travels in the bloodstream and acts on a target organ
6	Gland	An organ that secretes hormones into the bloodstream

B	Blood Glucose Regulation	
1	Insulin	Released by the pancreas when blood glucose levels are too high; causes glucose to be converted to glycogen
2	Glycogen	Excess glucose is stored as glycogen in the liver and muscles
3	Type 1 diabetes	A condition where the pancreas produces little or no insulin and is controlled by insulin injections, eating less carbohydrates and exercise
4	Type 2 diabetes	A condition where body cells become resistant to insulin and is controlled through a carbohydrate-controlled diet and exercise
5	Negative feedback	A mechanism that restores a level back to optimum in a system

C	Hormones	
1	FSH	Causes eggs to mature in the ovary and stimulates the ovary to produce oestrogen
2	Oestrogen	Causes the uterus lining to thicken and stops the pituitary gland releasing FSH

3	LH	Causes the ovary to release an egg into the oviduct which is called ovulation
4	Progesterone	Maintains the lining of the uterus and inhibits the release of LH and FSH
5	Testosterone	Produced by testes and stimulates sperm production
6	Hormonal methods of contraception	Oral contraceptive (the pill), contraceptive patch, contraceptive implant, contraceptive injection
7	Barrier methods	Condoms, diaphragm

D	The Nervous System	
1	Neurone	A nerve cell; carries electrical impulses
2	Synapse	A gap between two neurones; a chemical diffuses across a gap to cause a new electrical signal in the next neurone
3	Sensory neurone	A neurone that carries a message from a receptor to the relay neurone in the CNS
4	Relay neurone	Neurones that connect sensory neurones to motor neurones
5	Motor neurone	Carries impulses to the effector which is a muscle or gland
6	Reflex action	A rapid, automatic responses that is unconscious
7	Reaction time	The time it takes to respond to a stimulus

E	Higher Only	
1	Glucagon	Released by the pancreas when blood glucose levels are too low; causes glycogen to be converted to glucose
2	In vitro fertilisation	Women are treated with FSH and LH, then eggs are collected and fertilised in the lab; embryos are surgically implanted into the mother's uterus
3	Adrenaline	A hormone that increases the heart rate and boosts the delivery of oxygen and glucose to the brain and muscles, preparing the body for 'flight or fight'
4	Thyroxine	A hormone secreted by the thyroid gland that regulates metabolism and stimulates protein synthesis for growth and development

Year 11 – Science: Chemistry Topic 6 – Rates of Reaction (Paper 2) – Cycle One

A	Rates of Reaction	
1	Rate of reaction	How fast reactants are turned into products
2	Activation energy	The minimum amount of energy that particles must have to react
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

B	Factors Affecting the Rate of Reaction	
1	Catalyst	Speeds up the rate of reaction by lowering the activation energy without being used up or changed
2	Effect of increasing temperature	The particles will move faster so will collide more frequently and with more energy (more successful collisions)
3	Effect of increasing concentration	There are more particles in a fixed volume so they will have more frequent collisions
4	Effect of increasing gas pressure	The particles are in a smaller space and therefore closer together, so there will be more frequent collisions
5	Effect of increasing surface area	More particles are exposed, so there will be more frequent collisions
6	Calculating mean rate of reaction	Quantity of reactant used, or product formed/time
7	Precipitate	A solid that is formed in a solution during a chemical reaction

C	Equilibrium	
1	Reversible reactions	The products can react to produce the original reactants
2	Closed system	When none of the reactions or products can escape and nothing else can get in
3	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
4	Le Chatelier's principle	If you change the conditions of a reversible reaction at equilibrium, the system will counteract the change

Year 11 – Science: Biology Topic 6 – Inheritance and Evolution (Paper 2) – Cycle One

A	DNA	
1	DNA	Made of two strands, coiled into a double helix
2	Gene	A section of DNA, which codes for the sequence of amino acids within a protein
3	Genome	The entire set of genetic material in one organism
4	Human Genome Project	Worked out the entire genome of one human

B	Reproduction	
1	Mitosis	Produces two genetically identical daughter cells for the growth and repair of tissues
2	Meiosis	Produces four genetically non-identical daughter cells with half of the normal number of chromosomes
3	Gametes	Sperm or egg, produced in meiosis
4	Sexual reproduction	Sperm fertilises egg to create genetically different offspring; needs two parents
5	Cloning	Offspring that are genetically identical to the parent; produced in asexual reproduction
6	Chromosomes	Human adult cells have 23 pairs of chromosomes; male chromosomes include XY, female chromosomes include XX
7	Allele	A version of a gene
8	Dominant allele	The allele that is expressed and can be seen in the phenotype
9	Recessive allele	An allele that is only expressed if you have two copies of it
10	Homozygous	When a person has two of the same alleles for a particular gene, e.g. DD
11	Heterozygous	When a person has two different alleles for a particular gene, e.g. Dd
12	Genotype	The combination of alleles an individual has
13	Phenotype	An individual's characteristics
14	Cystic fibrosis	A disease of cell membranes, caused by a recessive allele
15	Polydactyly	Gives an individual an extra finger / toe, caused by a dominant allele

C	Inheritance	
1	Embryo screening	Embryos are checked for genetic disorders
2	Genetic variation	Differences caused by inheriting different genes from your parents, e.g. blood group
3	Environmental variation	Differences caused by living conditions, e.g. accent or suntan
4	Mutation	A change in an organism's DNA
5	Natural selection	A theory explaining how evolution works, developed by Darwin: mutation – variation – competition – adaptation
6	Extinction	When no individuals of a species remain
7	Reasons for extinction	Habitat destruction, new predators, new pathogens, increased competition
8	Selective breeding	Select the organisms with the best characteristics, breed them together, repeat until all individuals have the desired characteristic
9	Genetic engineering	Genes of one organism are transferred to other organisms
10	Fossil	Remains of dead organisms from thousands of years ago
11	Fossil formation	Replacement of bones by minerals, casts and impressions, preservation in places where no decay happens

D	Classification	
1	Classification	System developed by Linnaeus: Kingdom – Phylum – Class – Order – Family – Genus – Species
2	Binomial name	Formed from an organism's genus and species, e.g. <i>Homo sapiens</i>
3	Three domain system	Developed to take into account biochemical differences: Archaea, Prokaryota, Eukaryota
4	Archaea	Primitive bacteria that live in extreme conditions

Year 11 – Science – Physics Topic 6: Waves (Paper 2) – Cycle One

A	Wave Properties	
1	Waves	Transfer energy without transferring particles
2	Longitudinal waves	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, 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

B	Electromagnetic Spectrum	
1	Electromagnetic spectrum	A group of transverse waves made by the vibration of electric and magnetic fields
2	Order of the EM spectrum	RMIVUXG
3	High frequency EM waves	Have a low wavelength, are high energy, and can be dangerous
4	Radio waves	Used for communication, e.g. TV and FM radio
5	Uses of microwaves	Communication with satellites, as they can pass through the atmosphere, cooking
6	Uses of infrared (IR) radiation	Electrical heaters, cooking food, infrared cameras
7	Fibre-optic cables	Use pulses of visible light to transmit data over long distances
8	Possible effects of ultraviolet (UV) waves	Skin tan / burn, premature aging, cancer, energy efficient lamps
9	X-rays	Pass easily through skin, but are absorbed by bone, so can be used to detect broken bones
10	Gamma rays	Used for killing cancer cells / sterilising food
11	Ionising waves	Can cause the mutation of genes, leading to cancer, e.g. X-rays / gamma rays

Year 11 – Science: Physics Topic 5 – Forces (Paper 2) – Cycle One

A	Contact and Non-contact Forces	
1	Vector quantity	Quantity with magnitude (size) and direction
2	Scalar quantity	Quantity with magnitude (size) but no direction
3	Contact force	The objects are physically touching when the force is exerted
4	Interacting pair	A pair of forces that are equal and opposite, and act on two interacting objects
5	Non-contact force	The objects are physically separated when the force is exerted
6	Weight	The force acting on an object due to gravity
7	Weight equation	Weight = mass x gravitational field strength
8	Resultant force	A single force which has the same effect as the original forces acting together

B	Work Done	
1	Work done	The energy transferred when a force moves an object through a distance
2	Work done equation	Work done = force x distance
3	Energy transfer in spring	For elastic deformation, the work done is equal to the elastic potential energy store
4	Elastically deformed	An object can go back to its original shape and length after the force is removed
5	Hooke's law equation	Force = spring constant x extension
6	Limit of proportionality	The limit of force you can apply to an object for the extension to increase proportionally

C	Motion	
1	Distance equation	Distance = speed x time
2	Acceleration equation	Acceleration = $\frac{\text{change in velocity}}{\text{time taken}}$
3	Terminal velocity	When the drag forces on a falling object equal its weight, the acceleration decreases and reaches a steady velocity
4	Newton's first law	A resultant force is needed to change the velocity of an object
5	Newton's second law	The acceleration of an object is proportional to the resultant force on it, and is inversely proportional to its mass
6	Second law equation	Resultant force = mass x acceleration
7	Newton's third law	When two objects interact, the forces they exert on each other are equal and opposite
8	Stopping distance	Thinking distance + braking distance
9	Factors affecting thinking distance	Speed and reaction time (e.g. tiredness, drugs, alcohol)
10	Factors affecting braking distance	Speed, tyre and brake condition, icy or wet conditions

D	Momentum – Higher Only	
1	Momentum equation	Momentum = mass x velocity
2	Conservation of momentum	In a closed system, the total momentum before an event is the same as after the event

Year 11 – Science: Biology Topic 5 – Homeostasis (Paper 2) – Cycle One

A	Homeostasis	
1	Homeostasis	Regulation of internal conditions for optimum activity in response to internal and external changes
2	Conditions that are controlled	Body temperature, blood glucose, water content of the body
2	Stimulus	A change in the environment
3	Receptor	Detects a stimulus
4	Effector	An organ that carries out a response (a muscle or a gland)
5	Hormone	A chemical messenger that travels in the bloodstream and acts on a target organ
6	Gland	An organ that secretes hormones into the bloodstream

B	Blood Glucose Regulation	
1	Insulin	Released by the pancreas when blood glucose levels are too high; causes glucose to be converted to glycogen
2	Glycogen	Excess glucose is stored as glycogen in the liver and muscles
3	Type 1 diabetes	A condition where the pancreas produces little or no insulin and is controlled by insulin injections, eating less carbohydrates and exercise
4	Type 2 diabetes	A condition where body cells become resistant to insulin and is controlled through a carbohydrate-controlled diet and exercise
5	Negative feedback	A mechanism that restores a level back to optimum in a system

C	Hormones	
1	FSH	Causes eggs to mature in the ovary and stimulates the ovary to produce oestrogen
2	Oestrogen	Causes the uterus lining to thicken and stops the pituitary gland releasing FSH

3	LH	Causes the ovary to release an egg into the oviduct which is called ovulation
4	Progesterone	Maintains the lining of the uterus and inhibits the release of LH and FSH
5	Testosterone	Produced by testes and stimulates sperm production
6	Hormonal methods of contraception	Oral contraceptive (the pill), contraceptive patch, contraceptive implant, contraceptive injection
7	Barrier methods	Condoms, diaphragm

D	The Nervous System	
1	Neurone	A nerve cell; carries electrical impulses
2	Synapse	A gap between two neurones; a chemical diffuses across a gap to cause a new electrical signal in the next neurone
3	Sensory neurone	A neurone that carries a message from a receptor to the relay neurone in the CNS
4	Relay neurone	Neurones that connect sensory neurones to motor neurones
5	Motor neurone	Carries impulses to the effector which is a muscle or gland
6	Reflex action	A rapid, automatic responses that is unconscious
7	Reaction time	The time it takes to respond to a stimulus

E	Higher Only	
1	Glucagon	Released by the pancreas when blood glucose levels are too low; causes glycogen to be converted to glucose
2	In vitro fertilisation	Women are treated with FSH and LH, then eggs are collected and fertilised in the lab; embryos are surgically implanted into the mother's uterus
3	Adrenaline	A hormone that increases the heart rate and boosts the delivery of oxygen and glucose to the brain and muscles, preparing the body for 'flight or fight'
4	Thyroxine	A hormone secreted by the thyroid gland that regulates metabolism and stimulates protein synthesis for growth and development

Year 11 – Science: Chemistry Topic 6 – Rates of Reaction (Paper 2) – Cycle One

A	Rates of Reaction	
1	Rate of reaction	How fast reactants are turned into products
2	Activation energy	The minimum amount of energy that particles must have to react
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

B	Factors Affecting the Rate of Reaction	
1	Catalyst	Speeds up the rate of reaction by lowering the activation energy without being used up or changed
2	Effect of increasing temperature	The particles will move faster so will collide more frequently and with more energy (more successful collisions)
3	Effect of increasing concentration	There are more particles in a fixed volume so they will have more frequent collisions
4	Effect of increasing gas pressure	The particles are in a smaller space and therefore closer together, so there will be more frequent collisions
5	Effect of increasing surface area	More particles are exposed, so there will be more frequent collisions
6	Calculating mean rate of reaction	Quantity of reactant used, or product formed/time
7	Precipitate	A solid that is formed in a solution during a chemical reaction

C	Equilibrium	
1	Reversible reactions	The products can react to produce the original reactants
2	Closed system	When none of the reactions or products can escape and nothing else can get in
3	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
4	Le Chatelier's principle	If you change the conditions of a reversible reaction at equilibrium, the system will counteract the change

Year 11 – Spanish – Cycle One

A	Vocabulario: Vacaciones, Festivals y Mediomambiente	
1	En invierno	In winter
2	En verano	In summer
3	En otoño	In autumn
4	En primavera	In spring
5	Al norte / sur / este / oeste	In the north / south / east / west
6	Al extranjero	Abroad
7	Hacer buceo	To dive
8	Ir de paseo	To go for a walk
9	Ver un partido	To watch a match
10	Perder mi vuelo	To miss my flight
11	Hacer una barbacoa	To have a barbecue
12	Un albergue juvenil	A youth hostel
13	Una pensión	A bed and breakfast (B&B)
14	Una piscina cubierta	An indoor swimming pool
15	Acogedor	Cozy
16	Una cama de matrimonio	A double bed
17	El ascensor	The lift
18	La ducha	The shower
19	La luz	The light
20	El desfile	The parade
21	El concurso	The contest

22	La hoguera	The bonfire
23	Los fuegos artificiales	The fireworks
24	Saltar	To jump
25	Disfrazarse	To dress up
26	Quemar	To burn
27	Matar	To kill
28	Tirar	To throw
29	Vestirse	To get dressed
30	Acostarse	To go to bed
31	Ahorrar	To save
32	Cerrar	To close
33	La contaminación atmosférica	Atmospheric pollution
34	Apagar	To switch off
35	Desenchufar	To unplug
36	El hambre	Hunger
37	Los incendios	Fires
38	La pobreza	Poverty
39	Las inundaciones	Floods
40	Las sequías	Draughts
41	Mantenerse	To keep / to stay
42	Evitar	To avoid
43	Perjudicial	Harmful

Year 11 – BTEC Sport – Unit Six (Leading Sports Activities) – Cycle One

A Sports Leaders		
1	Leadership	Leading a group of people
2	Attributes	A quality or feature regarded as a characteristic of someone
3	Enthusiasm	Intense and eager enjoyment, interest or approval
4	Core responsibilities	These include professional conduct, equality and health and safety
5	Equality	Ensuring individuals or groups of individuals are treated the same
6	Wider responsibilities	Includes insurance, child protection, legal obligations, ethics and values, rules and regulations
7	Ethics	The moral principles that govern a person's behaviour, or the conducting of an activity

B Warm Up		
1	Pulse raiser	Activities that can be used to gradually increase the pulse rate
2	Mobilise	Activities to mobilise the main joints of the body such as knees, hips, shoulders, ankles and wrists
3	Stretching	Loosening of the muscles to prepare the body for exercise

C Cool Down		
1	Pulse lowering	Activities that gradually decrease in intensity

D Planning		
1	Aim	This provides details of what they would like to achieve for the selected activity / sport
2	Objectives	How they intend to meet their aims using an appropriate component of fitness and method of training

E Guidance		
1	Visual	This is when the performer is shown the skill, via video, pictures or demonstrations
2	Verbal	This is when the performer is told the information about how to complete the correct technique

F Types of Feedback		
1	Feedback	Specific information provided about the skill being performed
2	Intrinsic	Feedback that is from <u>within</u> the performer
3	Extrinsic	Feedback is from <u>outside</u> the performer
4	Concurrent	This is feedback that is given <u>during</u> a performance
5	Terminal	This is feedback that is given <u>after</u> the performance

Year 11 – GCSE Sport Science – Component 2 – Cycle One

A	Health and Well-being	
1	Health	A state of complete emotional, physical and social well-being, and not merely the absence of disease and infirmity
2	Lifestyle choices	The choices we make about how we live and behave that impact on our health
3	Sedentary lifestyle	A lifestyle where there is little, irregular or no physical activity
4	Energy balance	This is the basis of weight control; for body weight to remain constant, energy input (via food) must equal energy expenditure
5	Overweight	You weigh more than the expected weight for your height and sex
6	Overfat	You have more body fat than you should have
7	Obese	A term used to describe people who are very overfat
8	Macronutrients	A type of food required in relatively large amounts in the diet, e.g. carbohydrates, fats, protein
9	Micronutrients	A type of food required in relatively small quantities in the diet, e.g. vitamins and minerals
10	Optimum weight	The ideal weight someone should be, on average, based on their sex, height, bone structure, and muscle girth
11	Muscle girth	The size of the muscle, measuring its circumference
12	Dietary manipulation	Planning exactly what to eat and when to eat to get the most advantage from the food being consumed
13	Hydration	Being hydrated means the body has the correct amount of water in cells, tissues and organs to function correctly

B	Sport Psychology	
1	Continuum	A line that goes between two extremes
2	Continua	More than one continuum
3	Open skills	Skills performed in an unpredictable environment where the performer must react and adjust due to the changing nature of the situation
4	Closed skills	A skill performed in a predictable environment, e.g. a player taking a penalty
5	Basic skill	A simple skill requiring little concentration to execute
6	Complex skill	A skill requiring a lot of attention / concentration
7	High organisation skill	A skill that cannot be broken down easily and practiced separately because the phases of the skill are closely linked, e.g. cartwheel, golf swing
8	Low organisation skill	A basic skill that can be broken down easily into different phases so each part can be practiced separately, e.g. tennis serve
9	Massed practice	Practice that occurs without rest between trials
10	Distributed practice	Intervals between skill practice in a training session for rest or mental rehearsal
11	Fixed practice	Repeatedly practicing a whole skill within a training session
12	Variable practice	A training session that includes frequent changes of task so that the skill can be repeated in different situations

Year 11 – GCSE Sport Science – Component 2 – Cycle One

C	Sport Psychology	
1	Guidance	Information to aid the learning of a skill
2	Visual guidance	When a performer is shown the skill, e.g. demonstrations
3	Verbal guidance	When the performer is told information about how to complete the correct technique
4	Manual guidance	Where the coach physically supports or moves the performer to help them get into the correct position
5	Mechanical guidance	Where the coach uses equipment to support the performer to help them with the technique
6	Feedback	Information received during or after a performance about the performance
7	Intrinsic	Feedback is from within the performer, e.g. how the movement felt from the muscles
8	Extrinsic	Feedback is from outside the performer, e.g. from the coach
9	Concurrent	Feedback that is given during the performance
10	Terminal	Feedback that is given after the performance
11	Mental rehearsal	A technique that involves mentally practicing a skill or movement before physically doing it

D	SMART Targets	
1	Specific	Your goal must be clear (specific)
2	Measurable	In order to know if your goal has been met successfully, it must be something that can be measured
3	Achievable	It is something that is possible for you to do
4	Realistic	A goal that is possible, given all the factors involved
5	Time-bound	Goals must be assigned a time frame for completion

E	Socio-cultural Influences	
1	Participation rates	The number of people taking part in physical activity
2	Data	Facts and statistics gathered to provide information that is easier to see
3	Trends	Based on data, the general direction something is moving in (up, down or the same)
4	Sportsmanship	Qualities of fairness, following the rules, being gracious in defeat or victory
5	Gamesmanship	Bending the rules / laws of a sport without actually breaking them
6	Deviance	Behaviour that goes against the moral values or laws of the sport

Year 11 – Travel and Tourism – Cycle One

A	Key Terms One	
1	Tourist	People who travel for leisure
2	Leisure	For fun or enjoyment
3	Economic	To do with money and jobs
4	Facilities	Places that people use such as hospitals and schools
5	Disposable income	Money a person has leftover 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	Multiplier effect	When one positive thing leads to another positive thing
10	Sustainability	Minimising damage to something so it can continue for a long time
11	Tourist taxes	Extra money that tourists have to pay
12	Destination management	Management of all the parts that make up a tourist destination

B	Key Terms Two	
1	Public sector	Organisations funded and controlled by government
2	Private sector	Organisations controlled or owned by individuals
3	Voluntary sector	Organisations funded by membership and donations
4	Domestic	Taking holidays and trips in your own country
5	Outbound	Travelling to a different country for a visit or holiday
6	Inbound	Visitors from overseas coming into the country
7	AONB	Areas of Outstanding National Beauty
8	Leisure travel	Travel for fun
9	Business travel	Travel for work
10	Multicentre holiday	A holiday in more than one destination
11	City break	A short 2- or 3-night trip in a city
12	Hostel	A form of accommodation where visitors sleep in a shared dormitory