



2024-2025

Year 10 Cycle 1

100% Book

Name:

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?



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



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



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



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



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



6) Check your answers using green pen

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



Correcting spelling, punctuation and grammar

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

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



Year 10 – Cycle 1 – Art & Design

1	Still life	A painting or sculpture of anything that does not move
2	Composition	The artistic arrangement of elements within an artwork
3	Chiaroscuro	Extreme contrast between light and shadow for dramatic effect
4	Contemporary art	Art produced in the second half of the 20 th Century or in the 21 st Century
5	Foreground	The part of the artwork which depicts an area closer to the viewer
6	Middle ground	The middle distance in an artwork
7	Background	The part of the artwork which depicts an area furthest from the viewer
8	Reductive drawing	Technique where darkness is laid onto paper and removed to show the light parts of an image
9	Monochrome	Artwork that only includes one colour
10	Photomontage	Collage constructed from photographs
11	Photomanipulation	Transforming a photograph using various methods
12	Plate	The surface upon which you have created your design
13	Block-printing	Process of printing designs by engraving blocks or another surface
14	Gouge	Tool used for removing lino in the block printing process
15	Incise	Mark or decorate an object or surface with cuts or gouges
16	Brayer	Roller that is used in printmaking to evenly spread-out ink
17	Offset	Transferring ink from a printed page onto another surface
18	Invert	An image where up and down or left and right are reversed

Year 10 – Cycle 1 – Business GCSE – Section 1: Business Basics

1	Entrepreneur	Someone who is willing to risk starting a new business
2	Factors of production	The resources a business uses to provide their goods and services: land, labour, capital, enterprise
3	Opportunity cost	The sacrifice made when making a decision between two options
4	Secondary sector	Second stage of the production process, turning raw materials into products
5	Tertiary sector	Final stage of production, providing a service to customers
6	Interest rates	The cost of borrowing money or the reward for saving money, expressed as a percentage
7	Limited liability	Business owners can only lose the money they put into the business
8	Unlimited liability	Business owners can lose money they invested and their personal assets
9	Company	A business that has its own legal identity and can own items, owe money, sue and be sued
10	Shareholder	A person or an organisation that owns a part of the business
11	Stakeholder	Individuals and organisations that are affected by, and affect, the activities of a business
12	Dividends	The financial rewards paid out to shareholders each year
13	Tariff	A tax on foreign goods imported into a country
14	Imports	Goods and services purchased from overseas by consumers or businesses
15	Revenue	The income that a firm receives from selling its goods or services
16	Revenue formula	Revenue = number units sold × selling price
17	Franchise	When a franchisor sells the “rights” to its products to a franchisee
18	Economies of scale	When the unit cost of production falls as the output of a business increases and the business expands

Year 10 – Cycle 1 – Citizenship – Life in Modern Britain

1	British values	The five key values that are associated with living in modern-day Britain
2	Democracy	People having a voice in politics through the right to vote
3	Individual liberty	The freedom people have to make their own choices and decisions
4	Rule of law	The law applies equally to all people
5	Tolerance	Showing understanding of others with different views and opinions
6	Multiculturalism	The co-existence of diverse cultures in a society
7	Discrimination	Treating a person or group of people unfairly based on a characteristic such as sex, gender, or race
8	National identity	An identity associated with being a citizen of a specific country
9	Migration	The movement of people from one country to another
10	New media	All non-traditional forms of media, including internet-related communication
11	Mass media	Communicating to a large number of people at the same time
12	Censorship	The blocking of speech or information, decided by governments or authorities
13	Trade unions	A group of workers interested in protecting their rights and improving their working conditions
14	Councillor	A citizen who is elected to serve on local councils
15	Pressure group	An organised group of citizens who share a common interest in an issue and promote their cause
16	Petition	A formal, written request, usually signed by many people to address a certain issue
17	Non-governmental organisation (NGO)	National or international charities that provide services to those in need
18	Mediation	A process of involving outsiders in a dialogue to try to resolve a dispute between two groups

Year 10 – Cycle 1 – Drama

A: Job roles and stage configurations

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

B: *Noughts and Crosses*

13	Genre	Type of dramatic work, e.g. a comedy
14	Style	Manner in which a piece is performed, e.g. physical style
15	Context	The historical and social background of the play
16	Character motivation	The reason behind a character's behaviour and actions
17	Subtext	The underlying and unspoken thoughts of characters; what they really think and believe
18	Status	Position or ranking in society and with other characters in the play

Year 10 – Cycle 1 – Design & Technology

1	Design brief	A statement describing what you are designing or solving
2	Specification	Design requirements that must be met
3	Ideation	Creating design ideas or solutions
4	User mapping	Visualising the end-to-end user experience
5	Pain points	Areas where a user has experienced difficulty
6	Target market	The most likely customers of a product
7	Prototype	A physical model used to present your final design
8	LCA (Life Cycle Assessment)	A technique to assess environmental impacts at all stages of a product's life
9	Sustainable design	Design that reduces environmental impacts
10	Inclusive design	A design that considers usage to ensure as many people as possible can access it
11	Rapid prototyping	Techniques used to build a scale model of a physical part using 3D CAD, e.g. 3D printing
12	CAD (Computer Aided Design)	Digital software used to create 2D and 3D models and drawings
13	CAM (Computer Aided Manufacture)	The use of software and computer-controlled machinery for manufacture
14	Production line	A set of tasks that come one after the other and result in an identical product
15	Mass production	When the same product is manufactured many times on an assembly line.
16	Batch production	One group of identical products is made at the same time, before moving onto producing the next group
17	Varnish	A shiny coat usually applied to wood to make it more durable
18	Built-in obsolescence	Designing a product with a limited useful life or a purposely weak design

Year 10 – Cycle 1 – English Literature – *A Christmas Carol*

A: Writer's methods

1	Pathetic fallacy (n)	Giving human feelings to something non-human to create a specific tone
2	Imagery (n)	Visually descriptive language (e.g. simile/metaphor)
3	Symbolism (n)	The use of objects to represent an idea
4	Motif (n)	An image, word, phrase, or theme repeated throughout a text
5	Foil (n)	A character that is the opposite to another character
6	Allegory (n)	A story with a hidden meaning or moral
7	Epiphany (n)	A moment of realization

B: Context

1	Social injustice (n)	Inequality within society
2	Miser (n)	A greedy person who lives in a poor way to save money
3	Misanthropic (adj)	Showing a dislike for other people
4	Avarice (n)	Extreme greed for money
5	Callous (adj)	Cruel or insensitive towards others
6	Moral (n)	A lesson to be learned
7	Virtue (n)	Good or fair behaviour
8	Vice (n)	Evil or criminal behaviour
9	Redemption (n)	Saving someone from evil or sin
10	Transformation (n)	A major change in character
11	Philanthropic (adj)	Giving money and time to help needy people

C: Key quotations

1	'As solitary as an oyster.'
2	'a squeezing, wrenching, grasping, scraping, clutching, covetous, old sinner!'
3	'I wear the chains I forged in life'
4	""If they would rather die," said Scrooge, "they had better do it, and decrease the surplus population.""
5	'from the crown of its head there sprung a bright clear jet of light, ...'
6	'Another idol has displaced me...'
7	'Yellow, meagre, ragged, scowling, wolfish...'
8	'The phantom slowly, gravely, silently approached.'
9	'I am as light as a feather, I am as happy as an angel, I am as merry as a schoolboy.'
10	'I'll raise your salary, and endeavour to assist your struggling family...'

Year 10 – Cycle 2 – Enterprise BTEC – Component 1

Part A		
1	Entrepreneur	Someone who is willing to take risks in starting businesses
2	Market share	% of total sales in a market Sales of Product / Sales of Market × 100
3	Market growth	% change in market size Change in Size / Original Size × 100
4	Qualitative data	Data based on opinions and attitudes
5	Quantitative data	Numerical data
6	Primary research	Data gathered by the business itself
7	Secondary research	Data gathered previously by other organisations

Part B		
1	Marketing mix	The four Ps: the factors which influence customers' buying decisions
2	Price	Setting prices based on different methods of pricing
3	Product	Design, features and functions of the product itself
4	Promotion	Communicating with customers to raise awareness of the product
5	Place	Where products are sold and how products are delivered
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	Competitor	A rival business who is a threat to your success

Year 10 French – Cycle 1 – Foundation

A: Sports

1	To dream	rêver
2	Alone, lonely, only	seul
3	To succeed	réussir
4	To win, to earn	gagner
5	To deserve	mériter
6	Support	le soutien
7	I have pain in my.../my...hurts	j'ai mal à la/au/aux ...
8	A wheelchair	un fauteuil roulant

B: Technology

1	To order	commander
2	Free	gratuit
3	Link	lien
4	Unhealthy	malsain
5	Password	mot de passe
6	Social media	réseau social
7	To lower the volume	baissé le volume
8	Before watching	avant de regarder
9	I watch it	je le/la regarde

C: TV, Film and Music

1	I am crazy about	je suis fou/folle de
2	A ticket	un billet
3	The screen	l'écran
4	Short	court
5	Far from	loin de
6	It makes me sad	Ça me rend triste

7	It's not my thing	ce n'est pas mon truc
8	A song	une chanson
9	The show	le spectacle
10	I didn't sing	je n'ai pas chanté
11	It is going to be	Ça va être

D: Family and relationships

1		
2		
3		
4		
5		
6		

E: Free-time activities

1		
2		
3		
4		
5		
6		

F: Equality

1		
2		
3		
4		
5		
6		

Year 10 French – Cycle 1 – Higher

A: Sports		
1	To dream	rêver
2	Alone, lonely, only	seul
3	To succeed	réussir
4	To win, to earn	gagner
5	To deserve	mériter
6	Support	le soutien
7	Gold	or
8	To count on	compter sur
9	A test	une épreuve
10	I have pain in my.../my...hurts	J'ai mal à la/au/aux ...
11	A wheelchair	un fauteuil roulant
B: Technology		
1	To order	commander
2	Free	gratuit
3	Link	lien
4	Password	mot de passe
5	To lower the volume	baisser le volume
6	Before watching	avant de regarder
7	Subscription	abonnement
8	To save, to record	enregistrer
9	To harm	nuire
10	To steal	voler
11	Data	les données
12	I watch it	je le/la regarde
13	I watch them	je les regarde
14	Foreign	étranger
C: TV, Film and Music		
1	I am crazy about	je suis fou/folle de
2	A ticket	un billet
3	The screen	l'écran
4	Short	court
5	Far from	loin de
6	It makes me sad	Ça me rend triste

7	It's not my thing	ce n'est pas mon truc
8	A song	une chanson
9	It makes me want to	Ça me donne envie de
10	I didn't sing	je n'ai pas chanté
11	It is going to be	Ça va être
D: Family and relationships		
1		
2		
3		
4		
5		
6		
E: Free-time activities		
1		
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6		
F: Equality		
1		
2		
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6		
7		

Year 10 – French – Key Structures – Higher and Foundation

A: Opinion phrases		
1	I believe that	je crois que
2	I would say that	je dirais que
3	I think that	je pense que
4	According to me	selon moi
5	In my opinion	quant à moi
6	Frankly	franchement
B: Negative opinions		
1	It gets on my nerves	ça m'énerve
2	I'm fed up with	j'en ai marre de
3	I have some worries regarding	j'ai des soucis par rapport à
4	What scares me	ce qui me fait peur
5	What worries me is	ce qui m'inquiète est
6	I can't stand	je ne supporte pas
7	I can't stand	j'ai horreur de
C: Positive opinions		
1	I quite like	j'aime bien
2	I'm a fan of	je suis fan de
3	I am passionate about	je suis passionné par
4	What I like the most is	ce que j'aime le plus est
5	What I love is	ce que j'adore est

D: Positive reasons – present tense		
1	It makes me laugh	ça me fait rire
2	It relaxes me	ça me détend
3	It pleases me	ça me plaît
4	It helps me to relax	ça m'aide à me reposer
5	It helps me to forget everything	ça m'aide à tout oublier
6	It's worth doing	ça vaut la peine de faire
7	I have fun	je m'amuse
E: Negative reasons – present tense		
1	It makes me scared	ça me fait peur
2	It's not worth it	ça ne vaut pas la peine
3	It worries me	ça m'inquiète
5	I get bored	je m'ennuie
6	It tires me	ça me fatigue
7	It irritates me	ça m'embête
F: Positive adjectives		
1	Marvellous	merveilleux
2	Wonderful	formidable
3	Unbelievable	incroyable
4	Entertaining	divertissant
5	Fascinating	fascinant
6	Exciting	passionnant
7	Unforgettable	inoubliable
8	Pleasant	agréable

G: Negative Adjectives		
1	Boring	monotone
2	Annoying	pénible
3	Unpleasant	désagréable
4	Annoying	énervant
5	Ridiculous	ridicule
6	Awful	affreux
7	Worrying	inquiétant
8	Tiring	fatigant
H: Infinitive structures		
1	I want	je veux
2	I hope	j'espère
3	I want	j'ai envie de
4	I would like	j'aimerais
5	I have the intention to	j'ai l'intention de
6	I feel like	ça me dit de
7	I need	j'ai besoin de
I: Negatives		
1	I don't do	je ne fais pas
2	I no-longer do	je ne fais plus
3	I don't do anything	je ne fais rien
4	I only do	je ne fais que
5	I never do	je ne fais jamais
6	There isn't any	il n'y a aucun
7	There isn't anybody	il n'y a personne
8	It is not yet	Ce n'est pas encore

J: Connectives		
1	Given than	Étant donné que
2	Despite the fact that	malgré le fait que
3	On the contrary	au contraire
4	On the one hand	d'un côté
5	On the other hand	de l'autre côté
6	Therefore	du coup
7	So	donc
8	Due to	à cause de
9	In fact	en fait
10	Since, because	puisque
K: Small but important words		
1	Even	même
2	If	si
3	Except	sauf
4	Without	sans
5	Especially	surtout
6	Everywhere	partout
7	The majority	la plupart
8	Instead of	au lieu de
9	Few / not many	peu
L: Time phrases		
1	This evening	ce soir
2	Usually	d'habitude
3	Sometimes	parfois
4	Two years ago	il y a deux ans
5	The next day	le lendemain
6	Always	toujours

Year 10 – Cycle 1 – Geography

A: Global Development: Overview

1	Development	The process of improving quality of life within a country
2	Community-led	Where local people come together in response to a local need
3	Food security	All people always have access to enough safe, nutritious food to maintain a healthy life
4	Gross domestic product (GDP) per capita	The total value of goods and services produced by a country in one year divided by the population
5	Human Development Index (HDI)	A composite way of measuring development using life expectancy, GNI per capita and average years of schooling.
6	Indices of political corruption	An index that ranks countries on their perceived level of corruption
7	Transnational corporation	A firm that owns or controls production in more than one country through foreign direct investment
8	Core	An area with a lot of economic development
9	Periphery	An area with a lack of economic investment

A: Global Development: Case study of a development in a developing or emerging country

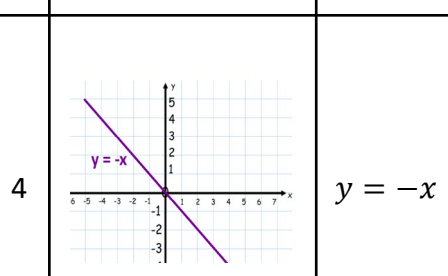
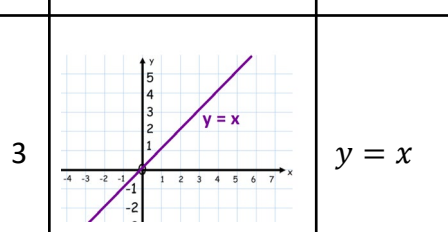
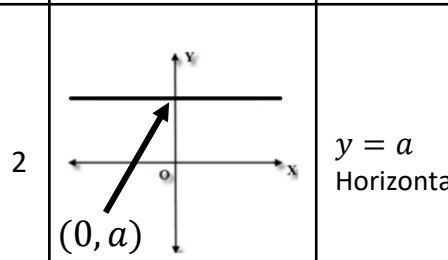
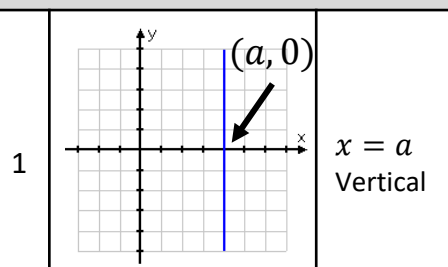
10	Demographic processes	The changing size of populations due to births, deaths and migration.
11	Emerging country	Countries that are improving their levels of economic development through investment e.g. India.
12	Foreign policy	A government's strategy in working with other countries.
13	Military pacts	An alliance where places promise to defend one another
14	Geopolitical relationships	Political and trading relationships with other countries through imports and exports.
15	International trade	The buying and selling of goods and services from one country to another
16	Middle class	A social group of well-educated people with good jobs
17	Rapid development	When emerging countries develop extremely quickly through investment.
18	Global status	Set of features that describes the economic position of one country compared to another

Year 10 – Cycle 1 – History – Changes in Health and Medicine, c. 500 to the present day

1	Ancient period	The period of time roughly from 3000 BC to 500 CE
2	Medieval period	The period of time roughly from 500 CE to 1500 CE
3	Early Modern period	The period of time roughly from 1500 CE to 1700 CE
4	Industrial period	The period of time roughly from 1700 CE to 1900 CE
5	Modern period	The period of time roughly from 1900 CE to the present day
6	Renaissance	A period in the Early Modern period when people looked back and developed knowledge from the Ancient period
7	Miasma	The belief that bad smells can cause ill health
8	Four humours	The belief that the body was made up of four fluids that needed to be balanced to remain healthy
9	Pandemic	A disease that spreads across a wide geographical area
10	Self-flagellate	To whip yourself to repent for sins
11	Alchemy	Medieval chemistry that tried to change ordinary metals into gold and to cure death
12	Bloodletting	Removal of blood to balance the four humours to restore good health
13	Anaesthetic	A substance that makes a patient unconscious so they cannot feel any pain during surgery
14	Antiseptic	Chemicals used to kill bacteria to prevent infection of a wound
15	Antibiotic	A drug that kills bacteria inside the body to treat an infection
16	Astrology	The study of the movement of stars and planets and their influence on humans and the world
17	Anatomy	The study of the human body and how it fits together
18	To endow	To give a large amount of money to build a public building, e.g. hospital

Year 10 – Cycle 1 – Mathematics (Foundation)

A: Straight Line Graphs



B: Coordinates & Straight Lines

1	Gradient of line segment joining (x_1, y_1) and (x_2, y_2)	$\frac{y_2 - y_1}{x_2 - x_1}$
2	Equation of a straight line	$y = mx + c$ where $m =$ gradient and $c =$ y-intercept
3	Parallel lines...	have the same gradient

C: Compound Measures

1	Speed, distance and time formula triangle	
2	Density, mass and volume formula triangle	
3	Pressure, force and area formula triangle	

D: Quadratic Graphs

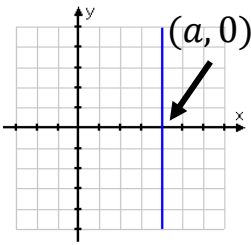
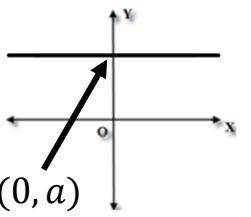
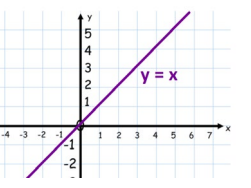
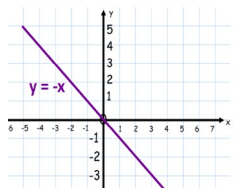
1		y-intercept
2		Roots or Solutions of $f(x) = 0$
3		Turning point

E: Further Graphs

1		$y = x^2$
2		$y = -x^2$
3		$y = x^3$
4		$y = \frac{1}{x}$
5		$y = a^x$

Year 10 – Cycle 1 – Mathematics (Higher)

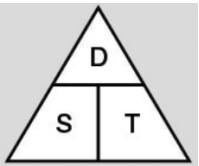
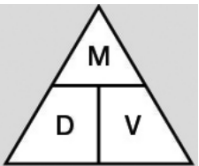
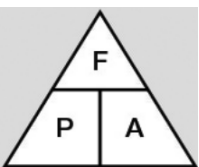
A: Straight Line Graphs

1		$x = a$ Vertical
2		$y = a$ Horizontal
3		$y = x$
4		$y = -x$

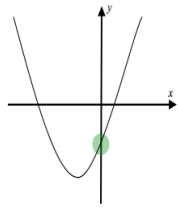
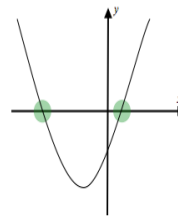
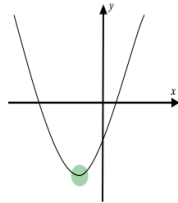
B: Coordinates & Straight Lines

1	Gradient of line segment joining (x_1, y_1) and (x_2, y_2)	$\frac{y_2 - y_1}{x_2 - x_1}$
2	If a line has gradient m , the perpendicular gradient...	is the negative reciprocal, $-\frac{1}{m}$
3	Parallel lines...	have the same gradient

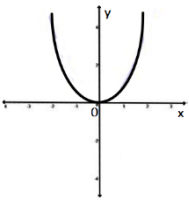
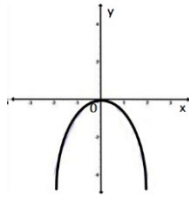
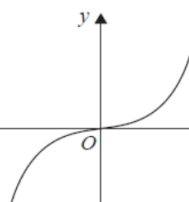
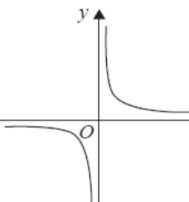
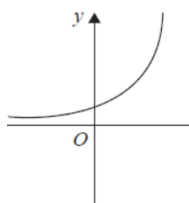
C: Compound Measures

1	Speed, distance and time formula triangle	
2	Density, mass and volume formula triangle	
3	Pressure, force and area formula triangle	

D: Quadratic Graphs

1		y-intercept
2		Roots or Solutions of $f(x) = 0$
3		Turning point

E: Further Graphs

1		$y = x^2$
2		$y = -x^2$
3		$y = x^3$
4		$y = \frac{1}{x}$
5		$y = a^x$

Year 10 – Cycle 1 – Religious Studies – Beliefs and Practices (Islam & Christianity)

1	Tawhid [2]	The belief in the oneness of God
2	Prophethood / Risalah [2]	Messengers of God, beginning with Adam and ending with the Prophet Muhammad
3	Angels / Malaikah	The belief in angels of Islam, e.g. Jibril, Israfil, Mika'il
4	Halal [2]	Anything which is permitted in Islam, e.g. eating permitted foods
5	Haram [2]	Anything which is forbidden in Islam, e.g. eating forbidden foods
6	Jihad [2]	To strive or struggle – there are two forms of jihad: greater and lesser
7	Mosque [2]	A place of prostration for Muslims, a communal place of worship
8	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
9	Ummah [2]	Worldwide Muslim community who share a common religious identity
10	Trinity [2]	The three persons of God: Father, Son and Holy Spirit
11	Incarnation [2]	God becoming human in the form of Jesus
12	Atonement [2]	The belief that Jesus' death on the cross healed the rift between humans and God
13	Resurrection [2]	The belief that Jesus rose from the dead on Easter Sunday, conquering death
14	Liturgical worship	When worship follows a set structure or pattern
15	Salvation	Saving from sin and its consequences
16	Sacraments	An outward sign of an invisible blessing from God
17	Evangelism [2]	Preaching the gospel to others to convert them to Christianity

Year 10 – Cycle 1 – Triple Science

A: Physics Topic 1: Energy (Paper 1)		
1	Energy stores	<u>Thermal</u> – <u>kinetic</u> (moving) – <u>gravitational potential</u> – <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 radiation, electric current, heating, or when a force moves an object
3	GPE equation	GPE = mass (kg) x gravitational field strength (N/kg) x change in height (m)
4	Kinetic energy	Kinetic energy = $\frac{1}{2} \times \text{mass (kg)} \times \text{speed}^2 \text{ (m/s)}$
5	Efficiency	$= \frac{\text{useful output energy transferred by device}}{\text{total input energy supplied to the device}}$
6	Power	The rate an appliance transfers energy. Power(W) = $\frac{\text{energy transferred to the appliance (J)}}{\text{time taken for energy to be transferred (s)}}$
7	Renewable resource	An energy resource is one that is being replenished as it is used, e.g. wind power
8	Non-renewable resource	An energy resource that cannot be replenished, so will run out, e.g. coal

B: Physics Topic 3: Particles (Paper 1)		
1	Movement of particles in solid	Vibrate about fixed positions
2	Movement of particles in liquid	Move in random directions at low speeds
3	Movement of particles in gas	Free to move; travel in random directions at high speeds
4	Internal energy	Total energy stored by particles in the kinetic and potential energy stores
5	Specific latent heat of fusion	Energy needed to change 1kg of a solid into a liquid, without changing its temperature
6	Specific latent heat of vaporisation	Energy needed to change 1kg of a liquid into a gas, without changing its temperature
7	Effect of increasing temperature on gas pressure	Faster particles → more frequent collisions and larger force per collision → pressure increases as pressure = force/area

Year 10 – Cycle 1 – Triple Science

C: Biology Topic 1: Cells (Paper 1)

1	Eukaryotic	A cell with a nucleus
2	Prokaryotic	A cell without a nucleus
3	Cell differentiation	When a cell becomes specialised
4	Root hair cells	Root hair cells absorb water and minerals; they have a big surface area for absorption
5	Cell cycle	Three stages are cell growth, chromosomes copied, mitosis
6	Mitosis	Produces two genetically identical daughter cells for the growth and repair of tissues
7	Stem cell	An undifferentiated cell
8	Osmosis	The movement of water molecules across a partially permeable membrane, from a dilute to a more concentrated solution

D: Biology Topic 2: Organisation (Paper 1)

1	Transpiration	Loss of water from a plant; water moves up the xylem, and then evaporates from the stomata
2	Amylase	Enzyme that breaks down starch into simple sugars; it's produced in the salivary glands and the pancreas
3	Protease	Enzyme that breaks down proteins into amino acids; it's produced in the stomach and the pancreas
4	Lipase	Enzyme that breaks down lipids into glycerol and fatty acids; it's produced in the pancreas
5	Bile	A liquid that neutralises stomach acid and emulsifies fats; it's produced in the liver and stored in the gall bladder
6	Denatured	When the active site of an enzyme changes shape, so the substrate can no longer fit
7	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
8	Malignant tumour	Tumour cells that spread to other parts of the body through the bloodstream

E: Chemistry Topic 1: Atoms and Periodic Table (Paper 1)		
1	Element	A substance in which all the atoms have the same atomic number
2	Compound	Two or more <u>different</u> elements chemically combined together
3	Isotope	Atoms of the same element, with the same number of protons but different numbers of neutrons
4	Plum pudding model	A ball of positive charge with negative electrons embedded in it
5	Mendeleev	Invented the first periodic table, which left gaps for undiscovered elements and was arranged according to atomic mass
6	Alkali metals' reaction with water	Alkali metal + water --> metal hydroxide + hydrogen
7	Reactivity of Halogens	Decreasing reactivity down the group; more reactive halogens will displace less reactive ones

F: Chemistry Topic 2: Structure and Bonding (Paper 1)		
1	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
2	Ionic compounds conducting electricity	Ionic compounds conduct electricity when melted or dissolved in water, because the ions are free to move to carry a current
3	Low melting points in small molecule covalent compounds	This is because little energy is needed to overcome the weak intermolecular forces between the molecules
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 forces between the layers, allowing them to slide over each other and has delocalised electrons, which allow it to conduct electricity
7	Metallic bonding	Rows of positive metal ions, surrounded by delocalised electrons which move through the structure
8	Properties of alloys	Harder than pure metals as different sized atoms distort the layers of atoms preventing the layers from sliding

Year 10 – Cycle 1 – Combined Science

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B: Physics Topic 1: Energy (Paper 1)

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Year 10 – Cycle 1 – Combined Science

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Year 10 – Spanish – Key Structures – Higher and Foundation

A: Verbos Importantes <i>Important Verbs</i>			B: Estructuras con Infinitive <i>Infinitive Structures</i>			D: Verbos Comunes <i>Common Verbs</i>			F: Palabras Pequeñas <i>Small but Important Words</i>		
1	To say	decir	1	To have just	acabar de + inf	1	To do	hacer	1	More and more	cada vez más
2	To give	dar	2	It is necessary	hay que + inf	2	I do	hago	2	Less and less	cada vez menos
3	To arrive	llegar	3	To have to	tener que + inf	3	They do	hacen	3	Unless	a no ser que
4	To start / begin	empezar	4	To start	empezar a + inf	4	You do	haces	4	Even	incluso
5	To realise	darse cuenta de	5	We should	deberíamos + inf	5	To have	tener	5	Instead of	en lugar de / en vez de
6	To enjoy	disfrutar	6	To learn to	aprender a + inf	6	I have	tengo	6	Despite	a pesar de
7	To get / catch	coger	7	Before/After + verb	antes de / Después de + inf	7	He / she / it has	tiene	7	Neither / nor	tampoco
8	To know	saber	8	To try	tratar de + inf	8	They have	tienen	8	Still / yet	todavía
9	To learn	aprender	9	I hope	espero + inf	9	To be*	ser*	9	If	si
10	To teach	enseñar	10	I want	quiero + inf	10	I am	soy	10	Already	ya
11	To need	necesitar	11	To stop	dejar de + inf	11	He / she / it is	es	11	Without	sin
12	To return	volver	12	To be able to	poder + inf	12	They are	son	12	Almost	casi
13	To continue / follow	seguir	13	You must	se debe + inf	13	To be*	estar*	13	Nobody	nadie
14	To want / to love	querer	14	You can	se puede + inf	14	I am	estoy	14	Little/ no	poco
15	To hear	oir	15	I want	tengo ganas de + inf	15	He / she / it is	está	15	The same	el mismo
16	To look	mirar	C: Preguntas <i>Question Words</i>			16	They are	están	16	Too / too much	demasiado
17	To come	venir	1	What	qué	17	To go	ir	17	Whereas / while	mientras que
18	To open	abrir	2	When	cuándo	18	I go / I'm going	voy	18	Less	menos
19	To go down	bajar	3	How	cómo	19	You go	vas	19	More	más
20	To fall	caer	4	Which	cuál	20	They go	van	20	Apart from	aparte de
21	To enter / to go in	entrar	5	Where	dónde	E: Verbos en el Pasado <i>Verbs in the Past</i>			21	Every	cada
22	To start/to begin	comenzar	6	Who	quién	1	I went	fui	22	Neither... nor	ni... ni
23	To sit	sentarse	7	Why	por qué	2	He / she / it was	fue	23	However	en cambio/no obstante
24	To record	grabar	8	How much	cuánto	3	He / she / it was	era	24	Quite	bastante
25	To shout / scream	gritar	9	How many	cuántos	4	There was / there were	había	25	No longer	ya no
			10	At what time	a qué hora	5	He / she / it had	tenía	26	No/not any/not a	ningún
						6	I saw / I watched	vi			

Year 10 Spanish – Cycle 1 – Foundation

A: Sports and free time

1	To have hobbies	tener pasatiempos
2	To watch a film	ver una película
3	To buy clothes	comprar ropa
4	Disability	Discapacidad
5	A team	un equipo
6	Fight	la lucha
7	A wheelchair	una silla de ruedas
8	To read	leer revistas
9	A fan	un aficionado
10	A young person	un/una joven
11	An entry ticket	una entrada
12	To stay at home	Quedarse en casa

B: Technology

1	To turn off the computer	apagar el ordenador
2	To download an application	bajar una aplicación
3	To charge the phone	cargar el móvil
4	A web page	una página web
5	A watch/clock	un reloj
6	To upload a photo	subir una foto
7	To create an account	crear una cuenta
8	Safety/security	seguridad
9	To help	ayudar

C: Music and entertainment

1	Happiness	alegría
2	The end/ending	el final
3	The song	la canción
4	The singer	el/la cantante
5	The lyrics	la letra
6	A show	un espectáculo
7	The News	las noticias
8	A horror film	una película de terror
9	It is fashionable	está de moda

D: Family and relationships

1	To know/to meet	conocer
2	To recognize/to admit	reconocer
3	Role model	modelo de conducta
4		
5		
6		

E: Festivals and events

1		
2		
3		
4		
5		
6		

Year 10 Spanish – Cycle 1 – Higher

A: Sports and free time

1	To have hobbies	tener pasatiempos
2	Disability	discapacidad
3	A team	un equipo
4	Fight	la lucha
5	A wheelchair	una silla de ruedas
6	A fan	un aficionado
7	A young person	un/una joven
8	An entry ticket	una entrada
9	To stay at home	quedarse en casa
10	To walk	andar / caminar
11	To jump	saltar
12	To catch/take	coger

B: Technology

1	To turn off the computer	apagar el ordenador
2	To download an application	bajar una aplicación
3	To charge the phone	cargar el móvil
4	To post on a web page	colgar en una página web
5	A watch/clock	un reloj
6	To create an account	crear una cuenta
7	To record / film a video	grabar un video
8	Headphones, earbuds	auriculares
9	A search	una búsqueda
10	Behaviour	comportamiento
11	To take advantage of, to make the most of	aprovechar
12	To dare	atreverse
13	The best / worst thing	lo mejor/peor

C: Music and entertainment

1	Happiness / joy	alegría
2	The lyrics of the song	la letra de la canción
3	The singer	el/la cantante
4	A show	un espectáculo
5	The news	las noticias
6	To delay / to take long	tardar
7	Full/filled	lleno
8	Disappointing	decepcionante
9	Stage	escenario
10	Sound	sonido
11	Chain/channel	cadena
12	Season (TV series)	temporada
13	To charge (money)	cobrar
14	The film is about	la película se trata de
15	It is fashionable	está de moda

D: Family and relationships

1	To know/to meet	conocer
2	To recognize/to admit	reconocer
3	Role model	modelo de conducta
4	To support	apoyar
5	To acquire, obtain, get	conseguir
6	To maintain, keep, stay	mantener, mantenerse

E: Festivals and events

1		
2		
3		
4		
5		

Year 10 – Cycle 1 – GCSE Sport Science

A: Classification of bones

1	Long bones	Aid movement by working as levers
2	Short bones	Weight bearing and provide support

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
5	Antagonistic pairs	Muscles work together where one muscle contracts and another relaxes to create movement

D: 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

Year 10 – Cycle 1 – Sport BTEC – Component 1

A: Terminology

1	Sport	Competitive activities that involve physical exertion, have rules and a National Governing Body
2	National Governing Bodies (NGBs)	An organisation that oversees a specific sport's rules and regulations within a country
3	Outdoor activities	Adventurous activities carried out outdoors or in recreational areas
4	Provision	Providing an opportunity to take part in something
5	Sector	A group of people connected by what they do
6	Barrier	Something that prevents you from carrying out a task
7	Pulse raiser	Activities that gradually increase the pulse rate
8	Mobilise	Activities to mobilise the main joints of the body such as knees, hips, shoulders, ankles and wrists
9	Stretching	Loosening of the muscles to prepare the body for exercise

B: Body systems

1	Cardiorespiratory system	Consists of the heart and blood vessels which work with the respiratory system
2	Musculoskeletal system	A combination of the muscular and skeletal systems working together including the bones, muscles, tendons and ligaments
3	Thermoregulation	Regulating your own body temperature
4	Pliability	How flexible something is, like your muscles
5	Erector Spinae	A group of muscles that are attached to the length of the spine, from the base of the skull to the hips
6	Ligaments	Role is to join bone to bone
7	Tendons	Role is to join muscles to bone
8	Cardiac muscle	A muscle that we don't have to think to make it contract
9	Voluntary muscle	Muscles that we can move when we want to