



2023-2024

Year 11 | Cycle 3

100% Book

Name:

Tutor group:

Your 100% book and knowledge organisers

2

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 11 – Cycle 3 – Art – Project 'Power'

1	Line	An identifiable path that can vary in width, direction and length
2	Medium	The material used such as clay, paint or pencil
3	Media	More than one medium
4	Organic	The formation of shapes in an irregular pattern or style
5	Perspective	The use of lines to create depth or three dimensions
6	Plaster	A chalk-like solid used to create sculptures and other forms of artwork
7	Shade	The varying levels of black that are mixed with a colour to change how dark it is
8	Tint	The varying levels of white that are mixed with a colour to change how light it is
9	Stencil	Shapes cut into a material that allow paint or ink to be applied
10	Symbol	An image that conveys information without words
11	Texture	The feeling of an object
12	Unity	Using similar elements in art to create a consistent theme
13	Wash	A highly fluid application of colour
14	Symmetry	Art made using similar parts of designs that are mirrored
15	Repetition	Repetition is created when objects, shapes, space, light, direction, lines etc. are repeated in an artwork

Year 11 – Cycle 3 – 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 in order 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

Year 11 – Cycle 3 – French – Key Structures

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	I have a wicked time	je m'éclate
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

J: Connectives		
1	However	pourtant/toutefois
2	Despite the fact that	malgré le fait que
3	Nevertheless	néanmoins
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
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	Last month	le mois dernier
4	Two years ago	il y a deux ans
5	The next day	le lendemain
6	Always	toujours

Year 11 – Cycle 3 – Geography

A: Fieldwork

1	River discharge	The volume of water flowing through a river channel at a given point
2	Representative	A sample which reflects the whole area or people
3	Accurate	Evidence which is a true
4	Reliable	If you measure it again you will get the same results
5	Sample	The group of people or sites you choose to investigate
6	Stratified sample	Choosing people or sites based on pre-determined groups
7	Systematic sample	Choosing people or sites at equal intervals
8	Random sample	Selecting people or sites without bias
9	Bias	Prejudice for or against one particular group of people or place

B: UK Challenges

1	Two-speed economy	The uneven growth of the UK economy
2	Greenfield site	Site which was previously undeveloped
3	Brownfield site	A site which has previously been built on.
4	Immigrant	Someone who moves to a new country or area
5	Conservation	Protection of an area
6	National park	Large area of natural land protected by government
7	Low-emissions zone	Areas where most polluting cars are not allowed to travel
8	Storm surge	A temporary rise in sea level associated with low-pressure systems
9	Salt-water encroachment	When sea water gets into groundwater supplies


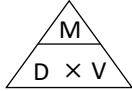

Year 11 – Cycle 3 – GCSE History: Germany

Impact of World War One on the Weimar Republic

1	Dolchstoss	The theory that the Weimar government had stabbed Germany in the back for signing the armistice and the Treaty of Versailles
2	Constitution	The laws that set out how a country is going to be governed
3	Coalition government	A government containing two or more political parties
4	Proportional representation	The voting system used by the Weimar Republic which led to coalition governments
5	Article 48	Special powers given to the President to take control away from the Reichstag during a state of emergency
6	Reichstag	The German parliament
7	President	The head of state who was in control of the army and could use Article 48
8	Chancellor	The head of the coalition government in the reichstag
9	Gleichschaltung	The German term for bringing all of Germany into line with Nazi values
10	Trade unions	A group of workers from a particular trade that is formed to protect or further the rights of the workers
11	Führer	Hitler's title which combined the role of president and chancellor
12	Rearmament	The process of building up the military
13	Aryan race	The Nazi term for 'pure' Germans
14	Boycott	Deliberately not purchasing / using something for political reasons
15	Gestapo	Nazi secret police
16	Lebensraum	Living space
17	Anschluss	The political and economic union of Germany and Austria
18	Appeasement	A policy which makes allowances to a hostile country in order to maintain peace

Year 11 – Cycle 3 – Mathematics (Foundation)

A: Compound measures

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

B: Index laws

1	$a^m \times a^n$	a^{m+n} for example, $2^5 \times 2^3 = 2^8$
2	$a^m \div a^n$	a^{m-n} for example, $2^5 \div 2^3 = 2^2$
3	$(a^m)^n$	a^{mn} for example, $(2^5)^3 = 2^{15}$
4	a^0	1
5	a^{-n}	$\frac{1}{a^n}$ for example, $3^{-2} = \frac{1}{3^2}$

C: Square numbers and prime numbers

1	Square numbers	1, 4, 9, 16, 25, 36, 49, 64, 81, 100...
2	Prime numbers	2, 3, 5, 7, 11, 13, 17, 19, 23, 29...

D: Averages and range

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

E: Percentages

1	Multiplier for an increase by $n\%$	$100 + n$, then divide by 100
2	Multiplier for a decrease by $n\%$	$100 - n$, then divide by 100
3	Percentage change	$\frac{\text{Actual change}}{\text{Original amount}} \times 100$
4	Compound growth, decay	Final amount = starting amount \times multiplier ^{n} where n is the number of years

A: Gradient and area under a curve

1	Gradient of a distance-time graph	Speed
2	Gradient of a speed-time graph	Acceleration
3	Area under a speed-time curve	Distance

B: Proof

1	Even number	$2n$
2	Odd number	$2n + 1$
3	Consecutive numbers	$n, \quad n + 1, \quad n + 2$
4	Consecutive even numbers	$2n, \quad 2n + 2, \quad 2n + 4$
5	Consecutive odd numbers	$2n + 1, \quad 2n + 3, \quad 2n + 5$
6	Two different even numbers	$2n$ and $2m$
7	Two different odd numbers	$2n + 1$ and $2m + 1$

C: 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	$f(x) \rightarrow -f(x)$

D: Trigonometric graphs

1	$y = \sin x$	<p>Graph of $y = \sin x$ showing a sine wave. Key points are labeled: $(-360, 0)$, $(-180, 0)$, $(-90, -1)$, $(0, 0)$, $(90, 1)$, $(180, 0)$, $(270, -1)$, $(360, 0)$.</p>
2	$y = \cos x$	<p>Graph of $y = \cos x$ showing a cosine wave. Key points are labeled: $(-360, 1)$, $(-270, 0)$, $(-180, -1)$, $(-90, 0)$, $(0, 1)$, $(90, 0)$, $(180, -1)$, $(270, 0)$, $(360, 1)$.</p>
3	$y = \tan x$	<p>Graph of $y = \tan x$ showing a tangent function with vertical asymptotes at $x = -360, -180, 180, 360$ and x-axis labels at $-360, -180, 0, 180, 360$.</p>

Year 11 – Cycle 2 – Health & Social Care – Component 3: Health and Wellbeing

1	Health	Having our physical needs met
2	Wellbeing	Having our social and emotional needs met
3	Holistic	Taking physical, intellectual, emotional and social needs into account
4	Lifestyle factors	The choices we make i.e. smoking, exercising
5	Cultural factors	Religion, gender roles and expectations, gender identity, sexual orientation and community participation.
6	Predisposition to a disease	Increased chance of developing an illness later in life
7	Acute illness	Comes on suddenly and lasts a short time
8	Chronic illness	Comes on slowly and lasts a long time
9	Substance use	Using drugs or alcohol
10	Lifestyle indicators	Ways of measuring health and wellbeing using daily habits
11	Financial resources	Money and assets belonging to a person
12	Physiological indicators	Ways of measuring health and wellbeing using technology – heart rate, blood pressure
13	Blood pressure	Measures the pressure of blood as it circulates the body
14	Healthy blood pressure range	90/60mmHg – 120/80mmhg
15	Body Mass Index (BMI)	Indicates percentage of body fat using height and weight measurements
16	Healthy BMI range	18.25-25kg/m ²
17	Lack of support	Not having anyone to motivate or encourage you

Year 11 – Cycle 2 – History – Elizabethan England

A: Elizabethan government		
1	Patronage	A system used by the monarch to reward loyalty
2	Factions	Rival groups with different political interests
3	JPs (Justices of the peace)	Members of the gentry who enforced law and order in each county
B: Lifestyles of the rich and poor		
4	Vagrant	An unemployed and homeless person that travelled the country in search of work
5	Impotent poor	Poor people who were viewed as being genuinely unable to work and deserving of charity
C: Popular entertainment		
6	Theatre companies	Groups of actors who were supported financially by wealthy noblemen
7	The pit	Area where the poor would stand in a theatre and watch a play
D: The Religious Settlement		
8	Religious settlement / Middle Way	Changes introduced by Elizabeth to provide a religious compromise between Protestants and Catholics
9	Church of England	The official name given to Protestantism in England

10	Royal injunctions	Instructions given to the clergy from the monarch
E: The Catholic Threat		
11	Recusants	Catholics who refused to attend Church of England services
12	Excommunication	Exclusion from the protection of the Catholic Church and entry to heaven
F: The Spanish Armada		
13	Privateers	Sailors that had permission from the monarch to capture goods from enemy ships
14	Beacon	a fire or light set up in a high position as a warning or signal
G: The Puritan Threat		
15	Puritan	Protestant sect that promoted a pure interpretation of the Bible
16	Presbyterians	Puritans that wanted to replace bishops with local elders
17	Propheying	Gatherings of Puritans to discuss the Bible and Puritan beliefs
18	Separatists	Extreme Puritans who wanted to break away from the Church of England

Year 11 – Cycle 3 – Religious Studies –Human Rights & Good and Evil

1	Social Justice	<ul style="list-style-type: none"> • 'Allah orders justice and good conduct' Qur'an • Parable of the Good Samaritan 'love your neighbour as yourself'
2	Prejudice and Discrimination	<ul style="list-style-type: none"> • 'You are all one in Christ' Bible • 'Do not let the hatred of people lead you to injustice' Qur'an
3	Wealth and poverty	<ul style="list-style-type: none"> • 'Remember the Lord your God, for it is he who gives you (...) wealth' Bible • 'Gambling is from the work of Satan' Qur'an
4	Censorship	<ul style="list-style-type: none"> • 'Go into the world and preach the gospel to all creation' Bible • 'To you your religion and to me mine' Qur'an
5	Punishment	<ul style="list-style-type: none"> • 'An eye for an eye and a tooth for a tooth' Qur'an + Bible • 'Father forgive them for they know not what they do' Bible
6	Death penalty	<ul style="list-style-type: none"> • Imago Dei - Bible • 'Whoever kills a soul it is as if he has killed all of mankind' Qur'an
7	Forgiveness	<ul style="list-style-type: none"> • 'Do not judge and you will not be judged' Bible • 'God loves those who turn unto Him in repentance' Qur'an
8	Evil	<ul style="list-style-type: none"> • 'The Lord gives and the Lord takes away' Story of Job - Bible • "He cannot be questioned for His acts, but they will be questioned (for theirs)." Qur'an

Year 11 – Cycle 3 – Religious Studies –Life and death and Relationships

1	Creation	<ul style="list-style-type: none"> • ‘In the image of God he created them; male and female’ Bible • ‘Your Lord is God who created the heavens and earth in six days’ Qur’an
2	Environment	<ul style="list-style-type: none"> • ‘Rule over the fish in the sea and the birds in the sky’ Bible • ‘The earth is green and beautiful (...) you are his stewards over it’ Hadith
3	Abortion	<ul style="list-style-type: none"> • Reproduction is one of Aquinas' Primary Precepts - Catholic Church • ‘Do not kill your children out of poverty’ Qur’an • ‘Thou shalt not kill’ Bible
4	Euthanasia	<ul style="list-style-type: none"> • ‘Whoever kills a soul, it is as if he has killed all of mankind’ Qur’an • Preservation of life is one of Aquinas' Primary Precepts - Catholic Church
5	Afterlife	<ul style="list-style-type: none"> • ‘Nor take life – which God has made sacred, except for a just cause’ Qur’an • ‘The body that is sown is perishable, it is raised imperishable’ Bible • ‘And everything they did is in written records’ Qur’an
6	Family	<ul style="list-style-type: none"> • ‘Men are the caretakers of women’ Qur’an • ‘My mother, my mother, my mother and then my father’ Qur’an • “Now as the church submits to Christ, so also wives should submit to their husbands in everything.” New Testament • ‘Male and female he created them’ Bible
7	Marriage and divorce	<ul style="list-style-type: none"> • ‘What God has joined together, let not man separate’ Bible • ‘Two become one flesh’ Bible • ‘He created for you from yourselves mates’ Qur’an • ‘Of all things permitted by Allah; divorce is the most hated’ Qur’an
8	Sex	<ul style="list-style-type: none"> • Do not approach unlawful sexual intercourse’ Qur’an • ‘Indeed you approach men with desire, instead of women. You are a transgressing people’ Qur’an • ‘Be fruitful and multiply’ Bible • Reproduction + Preserve life are two of Aquinas' Primary Precepts – Catholic Church
9	Gender equality	<ul style="list-style-type: none"> • ‘If a woman is to speak in a Church it is disgraceful’ Bible • ‘I do not permit a woman to teach or have authority over a man’ Bible • ‘Their husbands have the rights to take them back’ Qur’an • ‘Whether male or female; they will enter paradise’ Qur’an

Year 11 – Cycle 3 – Biology Paper 1

1	Eukaryotic	A cell with a nucleus
2	Prokaryotic	A cell without a nucleus
3	Root hair cells	Root hair cells absorb water and minerals; they have a big surface area for absorption
4	Cell cycle	Three stages are cell growth, chromosomes copied, mitosis
5	Mitosis	Produces two genetically identical daughter cells for the growth and repair of tissues
6	Stem cell	An undifferentiated cell
7	Osmosis	The movement of water molecules across a partially permeable membrane, from a dilute to a more concentrated solution
8	Transpiration	Loss of water from a plant; water moves up the xylem, and then evaporates from the stomata
9	Amylase	Enzyme that breaks down starch into simple sugars; it's produced in the salivary glands and the pancreas
10	Protease	Enzyme that breaks down proteins into amino acids; it's produced in the stomach and the pancreas
11	Lipase	Enzyme that breaks down lipids into glycerol and fatty acids; it's produced in the pancreas
12	Bile	A liquid that neutralises stomach acid and emulsifies fats; it's produced in the liver and stored in the gall bladder
13	Denatured	When the active site of an enzyme changes shape, so the substrate can no longer fit
14	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

15	Malignant tumour	Tumour cells that spread to other parts of the body through the bloodstream
16	Immune	If infected by the same pathogen again, the body quickly produces antibodies to kill the pathogen before it makes you ill
17	Preclinical trials	Drugs are tested on human cells and animals in the lab to check if they are toxic
18	Phase 1 clinical trials	Test low doses on healthy volunteers to check for side effects
19	Phase 2 clinical trials	Test on patients with the disease, comparing the effect of a placebo versus the drug
20	Uses of glucose in plants	Respiration, making cellulose for cell walls, making amino acids and making lipids or starch for energy storage
21	Limiting factor	A factor that affects the rate of photosynthesis when in short supply
22	Sodium hydrogen carbonate	Used to increase the amount of carbon dioxide dissolved in water when investigating photosynthesis
23	Uses of energy	Chemical reactions, movement, maintaining constant body temperature
24	Exercise	More muscle contraction, more energy needed and greater rate of respiration
25	Oxygen debt	The amount of oxygen needed to break down the lactic acid that has built up during anaerobic respiration
26	Metabolism	The rate of all the chemical reactions in a cell or the body

Year 11 – Cycle 3 – Chemistry Paper 1

1	Element	A substance in which all the atoms have the same atomic number	13	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
2	Compound	Two or more different elements chemically combined together	14	Metallic bonding	Rows of positive metal ions, surrounded by delocalised electrons which move through the structure
3	Isotope	Atoms of the same element, with the same number of protons but different numbers of neutrons	15	Properties of alloys	Harder than pure metals as different sized atoms distort the layers of atoms preventing the layers from sliding
4	Plum pudding model	A ball of positive charge with negative electrons embedded in it	16	Endothermic reaction	A reaction that takes in energy from the surroundings; temperature decreases
5	Mendeleev	Invented the first periodic table, which left gaps for undiscovered elements and was arranged according to atomic mass	17	Exothermic reaction	A reaction that transfers energy to the surroundings, temperature increases
6	Alkali metals' reaction with water	Alkali metal + Water --> Metal Hydroxide + Hydrogen	18	Activation energy	The minimum amount of energy that particles must have to react
7	Reactivity of Halogens	Decreasing reactivity down the group; more reactive halogens will displace less reactive ones	19	Conservation of mass	Atoms can never be created or destroyed; the total mass of reactants always equals the total mass of products
8	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	20	Uncertainty of a measuring instrument	Plus or minus (\pm) half the smallest scale division; for a thermometer with a mark at every 1.0°C, the uncertainty is $\pm 0.5^\circ\text{C}$
9	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	21	Avogadro constant (HT only)	The value of the Avogadro constant is 6.02×10^{23} per mole
10	Low melting points in small molecule covalent compounds	This is because little energy is needed to overcome the weak intermolecular forces between the molecules	22	Concentration	The mass of a substance in a volume of solution, measured in g/dm^3
11	Diamond	Each carbon atom covalently bonded to four others; hard, very high melting point, does not conduct electricity	23	Calculating concentration	$\frac{\text{mass of solute (g)}}{\text{volume of solvent (dm}^3\text{)}}$
12	Structure of graphite	Each carbon atom covalently bonded to three others and forms layers of hexagonal rings			

Year 11 – Cycle 3 – Physics Paper 1

1	Energy transfers	Energy is stored in objects and transferred by radiation, electric current, heating, or when a force moves an object
2	Renewable resource	An energy resource is one that is being replenished as it is used, e.g. wind power
3	Non-renewable resource	An energy resource that cannot be replenished, so will run out, e.g. coal
4	Movement of particles in solid	Vibrate about fixed positions
5	Movement of particles in liquid	Move in random directions at low speeds.
6	Movement of particles in gas	Free to move. Travel in random directions at high speeds.
7	Internal energy	Total energy stored by particles in the kinetic and potential energy stores
8	Specific latent heat of fusion	Energy needed to change 1kg of a solid into a liquid, without changing its temperature
9	Specific latent heat of vaporisation	Energy needed to change 1kg of a liquid into a gas, without changing its temperature
10	Effect of increasing temperature on gas pressure	Increases the average speed of the particles → More frequent collisions and larger force per collision → pressure increases as pressure = force/area
11	Current (Amps)	The rate of flow of electric charge; measured using an ammeter connected in series
12	Potential difference (Volts)	Energy transferred per coulomb of charge; measured using a voltmeter connected in parallel
13	Ohms law	Current through a resistor at a constant temperature is directly proportional to the potential difference across a resistor

14	LDR	The resistance of a light dependent resistor decreases if light intensity increases
15	Thermistor	The resistance of a thermistor decreases if temperature increases
16	Series circuit rules	Potential difference is shared according to resistances; current is the same everywhere in the circuit
17	Parallel circuit rules	The potential difference across each component is the same; current is shared according to resistance
18	National Grid	A nationwide network of cables and transformers transferring electricity from power stations to homes
19	Random decay	We cannot predict which nuclei will decay next and when a specific nucleus will decay
20	Activity	Number of unstable atoms that decay per second (measured in Becquerels)
21	Alpha particle	Made of two protons and two neutrons, with a charge of +2
22	Beta particle	Made of one electron, with a charge of -1
23	Irradiated	When an object is exposed to ionising radiation but does not become radioactive
24	Contaminated	When unwanted radioactive atoms get onto an object they release radiation and may cause harm

Year 11 – Cycle 3 – Spanish

A: Theme 1 – Relationships and Free Time / Technology

1	I get on well with	me llevo bien con
2	My twin makes me laugh	mi gemelo me hace reír
3	My best friend supports me	mi mejor amigo me apoya
4	We rarely argue	rara vez discutimos
5	He never criticises me	él nunca me critica
6	I want to marry	quiero casarme
7	I feel like falling in love	Tengo ganas de enamorarme
8	I use it to upload videos	lo/la uso para subir videos
9	I use them to post photos	los/las uso para colgar fotos
10	Young people are hooked	los jóvenes están enganchados
11	It is easy to be in contact	es fácil estar en contacto
12	I usually spend time on my phone	suelo pasar el tiempo en mi móvil

B: Theme 2 – Where I Live

1	I live in a flat in the centre	vivo en un piso en el centro
2	I used to live in the outskirts	vivía en las afueras
3	In my neighbourhood there is	en mi barrio hay
4	In my city there was	en mi ciudad había
5	It is necessary to help others	hay que ayudar a los demás
6	We have to protect the environment	tenemos que proteger el medioambiente

7	I always go to France	siempre voy a Francia
8	Before I used to go to Spain	antes iba a España
9	I stay in a bed and breakfast	me alojo en una pensión
10	I used to stay in a hostel	me alojaba en un albergue
11	I am going to travel to America	voy a viajar a Los Estados Unidos
12	I want to get to know Morocco	quiero conocer Marruecos

C: Theme 3

1	There is support from teachers	hay apoyo de los profesores
2	There was peer pressure	había presión de grupo
3	There is no school bullying	no hay acoso escolar
4	There was no fear to fail	no había miedo a suspender
5	It is necessary to revise for the tests	hay que repasar para las pruebas
6	We must bring the equipment	se debe traer los materiales
7	We have to be on time	tenemos que ser puntuales
8	We cannot wear make up	no se puede llevar maquillaje
9	I want to pass the exams	quiero aprobar los exámenes
10	I am not going to fail the exams	no voy a suspender los exámenes
11	I would like to gain experience	me gustaría adquirir experiencia
12	I fancy getting a job	Me apetece conseguir un trabajo
13	I feel like taking a gap year	tengo ganas de tomar un año sabático
14	I hope to start to earn money	espero empezar a ganar dinero

Year 11 – Cycle 3 – BTEC Sport – Unit Three (Applying the Principles of Personal Training)

A: Goal setting

1	Short-term goals	A goal that is set over a short period of time, between one day and one month
2	Medium-term goals	A goal that should give progressive support towards achievement of long-term goals
3	Long-term goals	Something you want to achieve in the future
4	Aim	Provides details of what you would like to achieve for the selected activity or sport
5	Objectives	How they intend to meet their aims using an appropriate component of fitness and method of training
6	PARQ	Physical Activity Readiness Questionnaire

B: Body systems

1	Cardiorespiratory system	Consists of the heart and blood vessels which work with the respiratory system
2	Musculoskeletal system	The muscular and skeletal systems working together including the bones, muscles, tendons and ligaments of the body

C: SMARTER Targets

1	S	Specific	Your goal must be clear
2	M	Measurable	To know if your goal has been met successfully, it must be something that can be measured
3	A	Achievable	Something that is possible for you to do
4	R	Realistic	Something that is possible given all the factors involved
5	T	Time-bound	Goals must be assigned a timeframe for completion
6	E	Exciting	Your motivation to strive towards your goal is driven by the emotions you associate with those goals
7	R	Recorded	Keeping a log of your goals so you are more likely to stay committed to the pursuit of your goals

D: Principles of training

1	Progressive overload	Making training steadily harder to improve fitness
2	Variation	Training must be different to avoid boredom
3	MHR	Maximum Heart Rate = 220 subtract age

Year 11 – Cycle 3 – GCSE Sport Science – Component 1 & 2

A: Socio-cultural influences		
1	Trends	Based on data, the general direction something is moving in (up, down or the same)
2	Sportsmanship	Qualities of fairness, following the rules, being gracious in defeat or victory
3	Gamesmanship	Bending the rules of a sport without actually breaking them
4	Deviance	Behaviour that goes against the moral values or laws of the sport
B: Muscles		
1	Antagonistic pairs	Muscles work together where one muscle contracts and another relaxes to create movement
2	Hip flexors	Their role is flexion of the leg at the hip
3	Gluteus maximus	Their role is extension of the leg at the hip
4	Tibialis anterior	Their role is dorsi-flexion at the ankle
C: Muscle fibres		
1	Type 1	Slow twitch muscle fibre suited to low aerobic work as they can be used for a long period of time without fatiguing
2	Type IIa	Fast twitch muscle fibre which can be improved through endurance training to increase their resistance to fatigue
3	Type IIx	Fast twitch muscle fibre used in anaerobic work which can generate much greater force but fatigues quickly

D: Vascular shunting		
1	Vascular shunting	Blood that is diverted away from inactive areas to the working muscles
2	Vasoconstriction	Blood vessels are constricted (squeezed) to make them smaller
3	Vasodilation	Blood vessels are dilated to make them bigger
E: Respiratory system		
1	Lung volume	The capacity of the lungs (how much air can they hold)
2	Tidal volume	The amount of air inspired (inhaled) or expired (exhaled) in a normal breath
3	Vital capacity	The maximum amount of air the lungs can expire (breath out) after the maximum amount they can inspire (breath in)
4	Gas exchange	Gases move from areas of high concentration to areas of low concentration