

# Year 9 - Cycle Three

# 100% Book



Name: \_\_\_\_\_

Tutor group: \_\_\_\_\_



**Paddington Academy**

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## Your 100% book and knowledge organisers

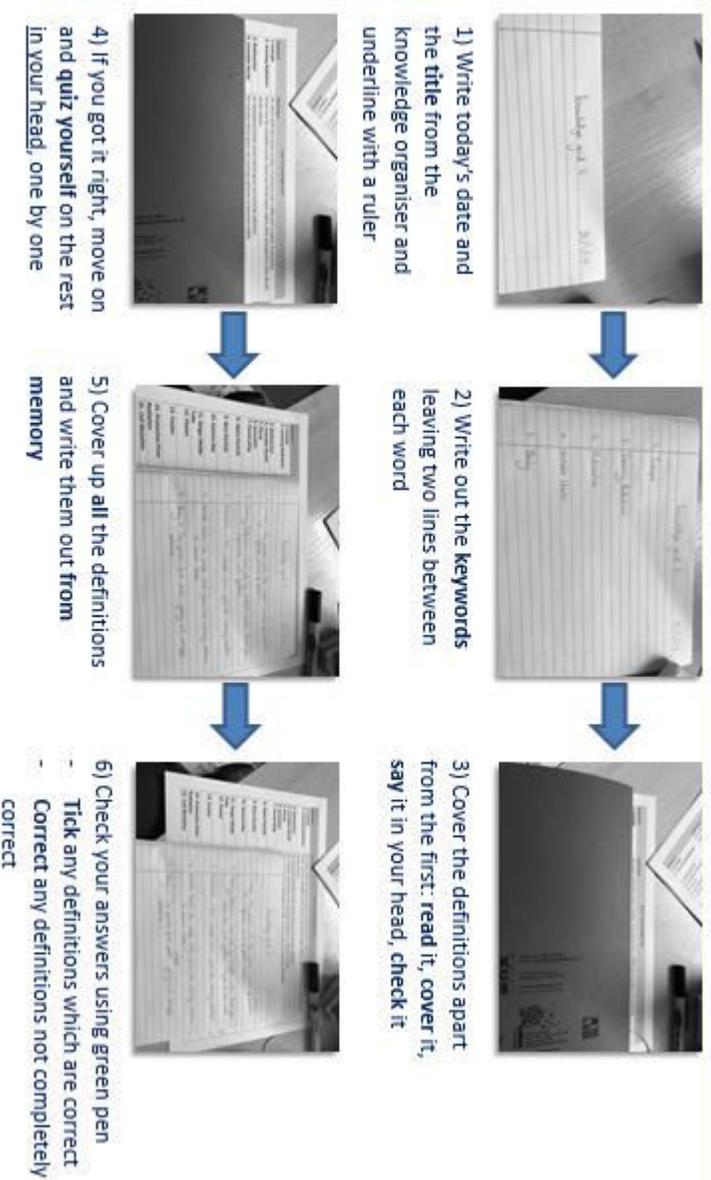
Knowledge organisers contain **critical** knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long-term.

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

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

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

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



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

# Year 9 Curriculum Overview

	Cycle 1		Cycle 2		Cycle 3	
<b>Art &amp; Design</b>	Investigating the effects of war: Kathe Kollwitz, Karl Schmidt Rottluff and Pablo Picasso	<b>Cycle 1 Assessment - Week beginning 10<sup>th</sup> November</b>	Investigating sustainability using design techniques: transforming 2D paintings into 3D sculptures	<b>Cycle 2 Assessment - Week beginning 9<sup>th</sup> March</b>	Using collage and typography to explore feminism and power in art through the ages	<b>Cycle 3 Assessment - Week beginning 22<sup>nd</sup> June</b>
<b>Drama</b>	Stanislavski's naturalism through 'Goodnight Mr Tom'		Devising using Brecht, based on 'The Three Little Pigs'		Staging a whole play: 'DNA' by Dennis Kelly	
<b>English</b>	William Shakespeare's 'Richard III': opinion writing and stagecraft		War Poetry & Journey's End: structure and crafting essays		The Gothic: symbolism and descriptive writing	
<b>French</b>	Jobs, where you live and the environment		Technology, festivals, going out and holidays		Holidays II, relationships and introduction to GCSE	
<b>Geography</b>	Climate change: human and natural causes of climate change; consequences of climate change in the future		Life in an emerging country: study of rapidly developing countries, e.g. India, Brazil and Mexico		Geographical challenges: synoptic unit covering three contemporary challenges	
<b>History</b>	The Great War: causes, life in the trenches, blame for the war, medical advancement, key battles, reason's for Germany's surrender, Treaty of Versailles		Nazi Germany & Holocaust: Hitler's rise to power, causes of WWII and reason for Nazi defeat. The Holocaust: persecution of Jews during WWII		Changes in health and medicine from the ancient period to the medieval and industrial period. Causes, prevention and treatment of illnesses	
<b>Mathematics</b>	Using linear graphs and their equations. Direct and inverse proportion. Converting to and from standard form notation. Working with non-linear sequences.		Algebra: manipulating expressions, rearranging formulae and solving equations to include simultaneous equations. Similarity and congruence.		Further geometry including Pythagoras' theorem and transformations. Comparing and analysing data including further averages. Introduction to probability.	
<b>Music</b>	Ensemble performance: whole class ensemble performance leading to small group		Film music composition: composing for moving image using music technology		Developing instrumental and ensemble skills in a small group	
<b>PE and Dance</b>	Developing the ability to officiate competitive situations (athletics and basketball)		Evaluating sporting performances and implementing improvements (football and table tennis)		Developing awareness of how to live a healthy active lifestyle through diet and training (fitness)	
<b>Religious Studies</b>	Christianity: Beliefs and Practices		Islam: Beliefs and Practices		Issues of Relationships	
<b>Science</b>	Biological Systems and Processes Forces	Chemical reactions and reactivity Plants	Waves Introduction to GCSE Science: Matter and Cells			
<b>Spanish</b>	Daily routine, Healthy living and the environment	Technology, media and holidays	Jobs and work, relationships and introduction to GCSE			

## Year 9 - Art & Design - Cycle Three

A	Key Terms	
1	Pose	The position in which someone stands or sits in an artwork
2	Identity	Who or what a person or thing is
3	Empowerment	Becoming stronger and more confident in controlling one's life or identity
4	Characteristics	A feature or quality belonging to a person, place, or thing that identifies them
5	Abstraction	The simplification of something by removing individual characteristics
6	Constructivism	An art movement in which assorted objects are combined into abstract structural forms
7	Positive space	The area of a composition designed to be the focal point
8	Typography	The art of designing and arranging words to make written language clear and appealing

B	Key Terms	
1	Dilute	To make something thinner or weaker by adding a liquid or a solvent to it
2	Chiaroscuro	Extreme contrast between light and dark tones for dramatic effect
3	Monochrome	Using black and white or varying tones of only one colour
4	Saturation	The intensity of the hue in a colour
5	Intensity (painting)	The saturation, brightness or strength of a colour
6	Charging	Mixing two or more colours directly on the paper instead of pre-mixing on a palette
7	Gender	Referring to being male or female when thinking about social and cultural differences, rather than biological ones
8	Queer	Used by those wanting to reject specific labels of romantic, sexual or gender identity

## Year 9 - Drama - Cycle Three

A	Key Terms	
1	Flats	Large boards used to create a scenery or backdrop to set
2	Rostra	Metal frame with wooden top, used to create levels in set
3	Cyclorama	Large white wall or curtain across the back of the stage, used for projection
4	Garment	Item of clothing worn by actor
5	General wash	Lighting where all of the stage is lit evenly
6	Spotlight	Lighting where one smaller round area is lit
7	Gobo	Small metal frame placed in light to create different lighting shapes on the stage
8	Gel	Plastic placed in front of light to change the colour of a light
9	Angle of beam	The direction which the light is pointed in order to create or remove shadow
10	Diegetic	Sounds heard in the world of the character
11	Non-diegetic	Sounds heard beyond the world of the character
12	Distorted	Sounds changed into an unnatural or strange sounds

# Year 9 - English - Gothic - Cycle Three

A	Key Terms	
1	Portent (n)	A sign or warning that a momentous event is likely
2	Symbolism (n)	The use of an object to represent an idea
3	In medias res (adj)	Beginning in the middle of things
4	Sibilance (n)	A hissing sound
5	Assonance (n)	Repetition of sound between syllables of nearby words, particularly vowels
6	Malignant (adj)	Evil or very bad
7	Contrast (n)	An obvious difference between two or more things
8	Eerie (adj)	Strange and frightening
9	Supernatural (n)	A being or event created by some force that cannot be understood through science
10	Superstition (n)	A belief in supernatural influences, usually leading to good or bad luck
11	Allusion (n)	A reference to another text
12	Atmospheric (adj)	Creating a distinctive mood
13	Setting (n)	The place or type of surroundings where something is positioned
14	Confined (adj)	To limit a person, activity or problem in some way
15	Grotesque (adj)	Inappropriate to a shocking degree
16	Incongruous (adj)	Not in harmony or keeping with the surroundings

B	Key Terms	
1	Focus (n)	The centre of interest or activity
2	Oppressive (adj)	Weighing heavily on the mind or spirits
3	Shift (v)	Change in emphasis, direction, or focus
4	Perspective (n)	A point of view
5	Uncanny (adj)	Strange or mysterious, especially in an unsettling way
6	Motif (n)	A repeated idea, theme or image with significance in that text
7	Direct address (n)	Speaking directly to the reader / audience
8	Delirium (n)	An acutely disturbed state of mind
9	Macabre (adj)	Something that is strange or disturbing because it is connected with death or gruesome acts
10	Hyperbole (n)	Exaggeration to increase the importance of something
11	Listing (n)	Grouping ideas in lists to add emphasis
12	Prodigious (adj)	Unnatural or abnormal
13	Repulsion (n)	A feeling of intense distaste or disgust
14	Inclusive pronoun (n)	Pronouns used to make the audience / reader feel included, e.g. 'we' and 'our'
15	Irony (n)	The use of words that mean the opposite of what is really meant in order to make a point
16	Parenthesis (n)	A word, phrase, or whole sentence inserted as an aside in the middle of another sentence

# Year 9 - French - Cycle Three

A	Verbs and Structures	
1	Avoir peur	To be scared
2	Descendre	To go down
3	Traverser	To cross
4	Essayer	To try
5	Voir	To see
6	Oser	To dare
7	Ce serait	It would be
8	S'entendre	To get on
9	Se disputer	To argue
10	S'embeter	To get annoyed
11	Se moquer de	To make fun of
12	Se marier	To get married
13	Se separer	To separate
14	Le plus	The most
15	Le moins	The least
16	Plus....que	More than
17	Moins....que	Less than
18	Le meilleur	The best
19	il doit etre	He must be
20	il doit avoir	He must have
21	il serait	He would be
22	il aurait	He would have

B	Vocabulary	
1	La parapente	Paragliding
2	La montagne russe	Roller coaster
3	La saute élastique	Bungee jumping
4	Quelle horreur	How terrible
5	Tu rigoles?	Are you joking?
6	Ce n'est pas mon truc	It's not my thing
7	Bavard	Chatty
8	Parasseux	Lazy
9	Barbant	Boring
10	Ennuyeux	Boring
11	Rigolo/otte	Funny
12	Il me fait rire	He makes me laugh
13	Je l'adore	I love him / her
14	Marié	Married
15	Divorcé	Divorced
16	Célibataire	Single
17	Amoureux de	In love with
18	En couple	In a couple
19	Un copain	A boyfriend
20	Une copine	A girlfriend

## Year 9 - Geography - Cycle Three

A	Energy	
1	Energy security	To be relatively self-sufficient in energy supply
2	Energy poverty	A lack of energy infrastructure and resources
3	Renewable energy	Energy which is infinite, sustainable and is easily re-used
4	Non-renewable energy	Energy which is finite, is not sustainable and takes a long time to be re-used
5	Energy efficiency	Using less energy to perform the same task
6	Climate change	The process of the Earth's climate changing over time
7	Imports	Goods brought into a country
8	Infinite	Limitless or endless
9	Decomposition	The state of rotting and decay
10	Fracking	Gas trapped in shale rock is released by pumping water and sand into the ground

B	Superpowers	
1	Geo-politics	The study of how geography influences international relations
2	Superpower	A powerful country which exerts power and domination in many regions of the world
3	Hegemony	The dominance of one country over another
4	Colonialism	Control by one power over a dependent area or people
5	Neo-colonialism	The control of superpowers over developing countries
6	Hard power	The use of military and economic force to maintain power
7	Soft power	The use of cooperation and attraction to maintain power
8	Cultural imperialism	Promoting the culture of one country over another
9	Sanctions	Limiting or stopping the trade of a country
10	Multi-polar	A system of many competing superpowers

## Year 9 - History - Cycle Three

A Ancient and Medieval Medicine		
1	The Nile	A river located in Egypt which was the source of wealth and trade for ancient Egyptians
2	Herbal remedies	The use of plants and herbs to create medicines to treat and prevent illness
3	Four humours	Four bodily liquids that Ancient Greeks believed needed to be kept in balance in order to maintain good health
4	Hippocrates	Ancient Greek physician who developed the theory of the four humours
5	Asclepius	The Greek God of healing
6	Galen	A Roman physician who continued to develop the work of Hippocrates
7	Dissection	The cutting open of human bodies to study them
8	Continuity	The unbroken existence of something over time

B Renaissance Medicine		
1	Renaissance	A period of time from the 14 <sup>th</sup> -16 <sup>th</sup> centuries that saw a cultural rebirth in education, science, art and music
2	Vesalius	A 16 <sup>th</sup> century physician who emphasised the importance of dissection and challenged the work of Hippocrates and Galen

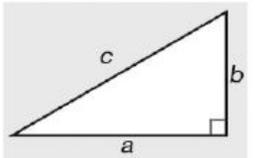
C Industrial Medicine		
1	Industrial Revolution	A period of time between the 18 <sup>th</sup> and 19 <sup>th</sup> centuries which saw changes in manufacturing methods through increased use of machines
2	Cholera	A widespread industrial disease that was caused by drinking contaminated water
3	Vaccination	The process of injecting a weakened form of disease into a person to help them build immunity to the disease
4	Germ theory	A mid 19 <sup>th</sup> century discovery that bacteria caused disease
5	Louis Pasteur	A French scientist who developed germ theory
6	Robert Koch	A German scientist who linked specific bacteria to specific diseases

# Year 9 - Maths - Cycle Three

## A: Index Laws

1	$a^m \times a^n$	$a^{m+n}$
2	$a^m \div a^n$	$a^{m-n}$
3	$(a^m)^n$	$a^{mn}$
4	$a^0$	1
5	$a^{-1}$	$\frac{1}{a}$
6	$a^{-n}$	$\frac{1}{a^n}$
7	$a^{\frac{1}{2}}$	$\sqrt[2]{a}$
8	$a^{\frac{1}{3}}$	$\sqrt[3]{a}$
9	$a^{\frac{1}{n}}$	$\sqrt[n]{a}$

## B: Pythagoras

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

## C: 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

## D: Probability

1	Probability	$\frac{\text{Number of successful outcomes}}{\text{Total number of possible outcomes}}$
2	P(A)	Probability of event A
3	P(not A) or P(A')	$1 - P(A)$
4	Predicted Number of Outcomes	Probability $\times$ number of trials
5	P(A and B)	$P(A) \times P(B)$
6	P(A or B)	$P(A) + P(B)$
7	Experimental Probability	$\frac{\text{Frequency of event}}{\text{Total number of trials}}$

## E: 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
4	Range	Largest number – smallest number

## Year 9 - Music - Cycle Three

A	Topic Area	
1	Notation	Written music
2	Tablature	A way of writing music down using numbers, most commonly used with the guitar
3	Tuning	A set of pitches to which an instrument is tuned
4	Technique	The way you play an instrument or sing
5	Plectrum / pick	A small piece of plastic used to pluck the strings of a guitar
6	Amplifier	A piece of electronic equipment used to increase the volume of an electric guitar
7	Guitar lead	A wire used to connect an electric guitar to an amplifier
8	Guitar strings	The six strings on a guitar, going from the lowest pitched string to the highest pitched string, are tuned to the notes E, A, D, G, B and E
9	Bass drum	A drum that forms part of a drum kit and is played with the right foot pedal
10	Snare drum	A drum that forms part of a drum kit, that has metal springs underneath it that produce a rattling sound
11	Hi-Hat	A pair of foot-operated cymbals that form part of a drum kit
12	Tom toms	A medium-sized cylindrical drum
13	Crash cymbal	A cymbal that forms part of a drum kit
14	Style	The type of music, e.g. rock, jazz, classical, hip-hop, etc.
15	Resilience	The ability to keep working at a task, no matter how challenging

# Year 9 - Physics - Matter - Cycle Three

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

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

# Year 9 - Science - Cycle Three

A	Plants	
1	Nucleus	Contains DNA which controls the cell's activities
2	Cell membrane	Controls the movement of substances in and out of the cell
3	Cytoplasm	Where most of the chemical reactions happen
4	Cell wall	Strengthens the cell and supports the plant
5	Chlorophyll	Green pigment found inside chloroplasts in leaves; it traps light energy required for photosynthesis
6	Chloroplast	Absorb light energy for photosynthesis (contains chlorophyll)
7	Vacuole	Filled with cell sap to help keep the cell turgid to provide support
8	Objective lens	Magnifies the image of the specimen
9	Eyepiece lens	We look directly through this; it magnifies the image of the specimen
10	Course / fine focus wheels	Used to focus the specimen so it can be seen clearly
11	Photosynthesis	A process in plants that uses energy to change carbon dioxide and water into glucose and oxygen
12	Photosynthesis equation	Carbon dioxide + Water → Glucose + Oxygen
13	Scientific question	A question we can answer using an experiment

14	Independent variable	The factor a scientist changes because they are investigating its effect, e.g. light intensity
15	Dependent variable	The factor a scientist measures or counts, e.g. number of bubbles produced
16	Control variable	The factor a scientist keeps the same because it could affect the dependent variable
17	Effect of light intensity	Increasing light intensity increases the rate of photosynthesis, until another factor limits the rate
18	Effect of carbon dioxide concentration	Increasing carbon dioxide concentration increases the rate of photosynthesis, until another factor limits the rate
19	Effect of temperature	Increasing temperature increases the rate of photosynthesis until the optimum, the rate decreases when temperature is higher
20	Waxy cuticle	It makes the leaf waterproof to prevent water loss
21	Palisade layer	Cells in the leaf that are packed with chloroplasts to trap sunlight
22	Spongy layer	A layer of cells in the leaf with air spaces between cells to allow gas movement
23	Broad and flat	Provides a large leaf surface area for light to be absorbed, and a short distance for gas to diffuse
24	Stomata	Small pores in the lower epidermis that open and close to allow gases in and out
25	Guard cells	Control the opening of the stomata

## Year 9 - Spanish - Cycle Three

A	Verbs and Phrases	
1	Hablar con clientes	To talk to clients
2	Organizar reuniones	To organise meetings
3	Contestar al teléfono	To answer the phone
4	Escribir correos electrónicos	To write emails
5	Ayudar a la gente	To help people
6	Cuidar niños	To look after children
7	Vender productos	To sell products
8	Estar al aire libre	To be in the open air
9	Se puede ganar un buen sueldo	You can earn a good salary
10	Me enfado con	I get angry with
11	Me peleo con	I fight with
12	Me llevo bien con	I get on well with
13	Discuto con	I argue with
14	Tenemos mucho en común	We have a lot in common
15	Me critica	He / she criticises me
16	Me apoya	He / she supports me
17	Me insulta	He / she insults me
18	Enamorarse	To fall in love
19	Voy a casarme	I am going to get married
20	Soy / estoy	I am (a doctor) / I am (a place)
21	Era	I used to be

B	Vocabulary	
1	Enfermero	Nurse
2	Azafata	Air hostess
3	Periodista	Journalist
4	Abogado	Lawyer
5	Albañil	Builder
6	Camarero	Waiter
7	A tiempo completo / parcial	Full- / part-time
8	Una tienda	A shop
9	Una fábrica	A factory
10	Leal	Loyal
11	Fuerte	Strong
12	Educada	Polite
13	Alegre	Cheerful
14	Travieso	Naughty
15	El matrimonio	Marriage
16	Una boda	A wedding
17	Hijos	Children
18	Una pareja	A couple
19	Un poco	A little
20	Bastante	Quite
21	Demasiado	Too / too much