

Year 8 - Cycle Three

100% Book



Name: _____

Tutor group: _____



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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).

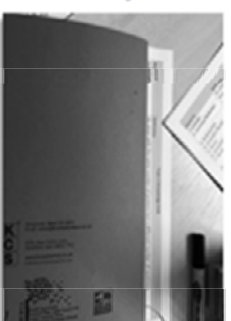
How do I use my 100% book for self-quizzing?



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



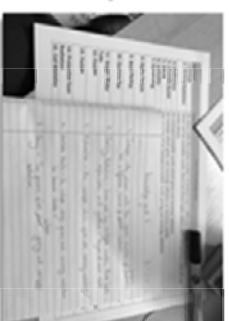
3) Cover the definitions apart from the first: **read** it, **cover** it, **say** it in your head, **check** it



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 8 | ART AND DESIGN | KNOWLEDGE ORGANISER | PRINTING



1. Monoprinting

Printing Ink	Thick ink that can be rolled out thin and transferred to different surfaces with pressure
Brayer	A roller that spreads out ink evenly onto a surface
Mono	Of Greek origin meaning 'one' or 'single'
Additive Print	Drawing into ink and pressing paper into the design
Subtractive Print	Apply paper onto ink and draw on the back – the pressure picks up the ink
Blot	Dab paper or tissue onto the ink to remove or dry it

2. Etching

Etching	Scratching shapes and designs into the surface of a metal or acrylic plastic plate
Incised	To mark or decorate (an object or surface) with a cut or cuts
Printing Press	Device for applying a lot of pressure to an inked surface and to transfer onto paper

2. William Morris

Born - Died	24 March 1834 – 3 October 1896	
Known For	<ul style="list-style-type: none"> British textile designer socialist activist part of the British 'Arts and Crafts movement' 	
Produced	<ul style="list-style-type: none"> wall-paper designs textiles embroideries stained glass windows 	
What influenced his textile work?	Mainly based on a close observation of nature	
Repeat Pattern	The elements of a pattern repeated in a predictable manner	

2. Andy Warhol

Born - Died	6 August 1928 – 22 February 1987	
Birthplace	Pittsburg, USA	
Worked In	New York City, USA	
Known For	<ul style="list-style-type: none"> making art that responded to mass-media culture of the 1960s silkscreen prints of cultural and consumer icons 	
Features of Work	<ul style="list-style-type: none"> celebrity subjects bold and bright colours 	<ul style="list-style-type: none"> simplified features repeated image
Imagery Featured	<ul style="list-style-type: none"> popular and mass culture advertising and product labelling comic books mundane cultural objects 	

4. Sarah Graham

Born - Died	1977 – Present	
Birthplace	Hitchin, UK	
Works In	Hertfordshire	
Known For	Hyper-real paintings of sweets and toys	
Features of Work	<ul style="list-style-type: none"> bright, vivid colours extremely realistic kitsch imagery blurred effect 	
Famous Work	2012 Album cover for rock band, Kaiser Chiefs	
Medium Used	Oil paints	

Y8 Cycle 3 | Drama | Brecht

A: Lesson 1

Bertolt Brecht	A German writer, director and practitioner who developed Epic Theatre
Performance Intention	The message that a play should make the audience think about
Alienation Effect	The process of using drama techniques to remind your audience they are watching a play
Direct Address	Stopping the action of the play to speak to the audience
Third Person Narration	Speaking about your character as a separate person

B: Lesson 2

Foreshadowing	Giving the audience clues about the outcome of the scene or the play before it happens
Placards	The inclusion of additional information in a written format
Theme	The main idea the performance is based on
Plot	The events that take place in a story
Climax	The most intense, exciting or important moment in a story

C: Lesson 3

Multi Role	One actor playing two or more characters in a play
Split Role	One character being played by two or more actors
Representational Costume	A costume that uses one item to represent a character for quick simple character changes
The Fourth Wall	An imaginary wall between the audience and performance space

D: Lesson 4

Juxtaposition	Contrasting ideas being seen or placed close together to create a strange effect
Time Jumps	Points in the play that go back and fourth in time through the narrative
Narrative	A spoken or written account of connected events
Political Theatre	A type of theatre known for making comments on current political events

English - Year 8 - Cycle 3 – Shakespeare’s *Romeo and Juliet*

A	Dramatic Devices	
1	prologue (n)	An introductory section of a work of literature, drama or music; acts as a framing device
2	monologue (n)	A long speech by one character in a play or film
3	chorus (n)	Actor(s) who are ‘outside’ the narrative, and who comment on the action and guide the audience
4	aside (n)	When a character briefly speaks to the audience, unheard by the other characters onstage
5	soliloquy (n)	When a character speaks his or her thoughts aloud
6	dramatic irony (n)	When readers / the audience are aware of something which the characters onstage are not
B	Literary Devices	
7	iambic pentameter (n)	A line of poetry with five sets of unstressed / stressed syllables (da-DUM x 5)
8	Shakespearean sonnet (n)	A poem written in a set 14-line structure
9	volta (n)	Italian word for ‘turn’; the shift in a poem
10	emotive language (n)	Deliberately chosen words to bring up emotion
11	juxtaposition (n)	Two ideas or images being placed close together to highlight the contrast
12	oxymoron (n) / oxymoronic	A figure of speech with two words that contradict each other
13	antithesis/es (n) / antithetical (adj)	Opposite idea(s)
14	imagery (n)	Language that describes by appealing to the senses, particularly visuals
15	figurative language (n)	Words or phrases that present a different meaning to the literal one, e.g. metaphor
16	cyclical structure (n)	When the end of a text mirrors or echoes the beginning
C	Key Vocabulary	
1	subvert (v) / subversion (n)	Removing power (undermining), or not following expectations
2	patriarchy (n) / patriarchal (adj)	A system of society or government controlled by men
3	martial honour (n)	A code of behaviour which your reputation depends on
4	fate / fortune (n)	Destiny, as decided by the stars / universe
5	free will (n)	Having control over your life, not dependent on fate
6	feud (n)	A long-standing and bitter argument or dispute

7	dehumanisation (n) / dehumanise (v)	Removing a person’s human qualities
8	objectification (n) / objectify (v)	Not seeing someone as a person but as an object

D) Shakespearean English	Modern English	E) Shakespearean English	Modern English
thou / ye / thee	you	hereafter	from now on
thine / thy	your	hie	hurry
ay	yes	hither	here
art	are	oft	often
aught	anything	’tis	it is
dost / doth	do	’twas	it was
’ere	before	wast	were
haste	urgency	whence	from where
hast	have	would (he were)	I wish (he were)
hence	from here	yon, yonder	that one there

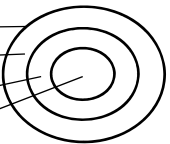
F	The Prologue
1	Two households, both alike in dignity,
2	In fair Verona, where we lay our scene,
3	From ancient grudge break to new mutiny,
4	Where civil blood makes civil hands unclean.
5	From forth the fatal loins of these two foes
6	A pair of star-cross’d lovers take their life;
7	Whose misadventured piteous overthrows
8	Do with their death bury their parents’ strife.
9	The fearful passage of their death-mark’d love,
10	And the continuance of their parents’ rage,
11	Which, but their children’s end, nought could remove,
12	Is now the two hours’ traffic of our stage;
13	The which if you with patient ears attend,
14	What here shall miss, our toil shall strive to mend.

Year 8 French - Cycle 3

Important Verbs to Memorise

1. Etre		To Be		4. Reflexive Verbs		6. Present Tense Weather		9. Personality		13. Time Phrases	
Je suis	I am	Je me rase	I shave	Il neige	It's snowing	Aimable	Likeable	D'habitude	Usually		
Tu es	You are	Je me maquille	I put on make up	Il y a du soleil	It's sunny	Généreux	Generous	Normalement	Normally		
Elle est	She is	Je me réveille	I wake up	Il fait beau	It's nice	Méchant	Nasty	Le matin	In the morning		
Il est	He is	Je m'habille	I get dressed	Il pleut	It's raining	Menteur	Liar (as an adjective)	Le soir	In the evening		
Nous sommes	We are	Je me douche	I shower	Il y a du brouillard	It's foggy	Timide	Shy	Maintenant	Now		
On est	We are	Je m'entends avec	I get on with	Il fait chaud	It's hot	Egoïste	Selfish	Aujourd'hui	Today		
Vous êtes	You (all) are	Je me dispute	I argue	Il fait froid	It's cold	Bavard	Chatty	Demain	Tomorrow		
Ils sont	They are	5. Activities		Il fait mauvais	It's bad	10. Photocard		Avant	Before		
2. Aller	To Go	Du VTT	Mountain biking	7. Past Tense Weather		À droite	Right	14. Connectives			
Je vais	I go	De la voile	Sailing	Il pleuvait	It was raining	À gauche	Left	Donc	Therefore		
Tu vas	You go	De la planche à voile	Windsurfing	Il neigait	It was snowing	À côté de	Next to	Puis	Then		
Elle va	She goes	De la randonnée	Hiking	Il faisait beau	It was nice	Devant	In front	Aussi	Also		
Il va	He goes	De l'escalade	Climbing	Il gelait	It was freezing	11. Modal Verbs		Par contre	On the other hand		
Nous allons	We go	De l'accrobranche	Tree climbing	Il y avait du vent	It was windy	Je veux	I want	Cependant	However		
On va	We go	De la pêche	Fishing	Il y avait du brouillard	It was foggy	Je voudrais	I would like	Toutefois	However		
Vous allez	You (all) go	Dormir	To sleep	Il faisait froid	It was cold	Je peux	I can	15. Sequencers			
Ils vont	They go	Sortir	To go out	Il faisait mauvais	It was a bad day	12. The Conditional		Ensuite	Next		
3. Avoir	To Have	Acheter	To buy	8. Holiday Places and Facilities		Il serait	He would be	Puis	Then		
J'ai	I have	Rester	To stay	Une pension	B&B	Je serais	I would be	En fin	Finally		
Tu as	You have	Manger au restaurant	To eat at the restaurant	Une gite	A cottage	Il aurait	He would have	16. Quantifiers			
Il a	He has	Se bronzer à la plage	To tan at the beach	Un hôtel de cinq étoiles	A five star hotel	Il y aurait	There would be	Beaucoup	A lot		
Elle a	She has	Se reposer	To relax	Un appartement	A flat						
Nous avons	We have	S'amuser	To have fun	Une salle de jeux	A games room						
On a	We have			Sur la côte	On the coast						
Vous avez	You (all) have			A la campgane	In the countryside						
Ils ont	They have			En ville	In town						
				A la montagne	In the mountains						
				A la plage	At the beach						

Tectonics

A	L1: Earth's Structure
Earth's Structure	<ol style="list-style-type: none"> Crust Mantle Outer Core Inner Core 
Continental Plates	Part of the Earth's crust which forms over large land masses
Oceanic Plates	Part of the Earth's crust which forms as the floor of oceans
Convection Currents	The rise and fall of magma in the mantle causing tectonic plates to move

B	L2: Tectonic Hazards
Destructive	Two continental plates collide
Constructive	Two plates move apart
Subduction	An oceanic plate collides with a continental plate
Conservative	Two plates slide past each other

C	L3: Earthquakes and Tsunamis
Earthquake	A sudden violent shaking of the ground due to tectonic activity
Tsunami	A long and high sea wave caused by an earthquake
Magnitude	Measures the strength of an earthquake
Epicentre	The point on the Earth's surface directly above the focus of the earthquake

Y8 Geography

D	L4: Volcanoes
Volcano	A mountain which has a crater or vent which erupts lava and gas from the mantle
Magma	Hot fluid material below or within the Earth's crust
Lava	Erupted magma from a volcano
Shield Volcano	A domed volcano with gently sloping sides
Composite Volcano	A large, steep volcano built up of layers of lava and ash

E	L5: Montserrat Volcano
Pyroclastic flows	A dense, destructive mass of very hot ash, lava and gases ejected from a volcano which flows at high speed
Impact	<ul style="list-style-type: none"> 19 people killed homes destroyed
Responses	<ul style="list-style-type: none"> evacuation services in the north of the island were expanded

F	L6: Monitoring Hazards
Prediction	A forecast for the future
Monitoring	Observing something
Preparing	Being ready for something
Seismometer	An instrument which measures the movement of the Earth's surface

Cycle 3

G	L7: : Haiti Earthquake
Magnitude	Magnitude 7 earthquake, 25km southwest of Port-au-Prince
Social Impact	<ul style="list-style-type: none"> 220,000 deaths 1.3 million homeless
Economic Impact	<ul style="list-style-type: none"> airport and port damaged 30,000 commercial buildings destroyed
Primary Responses	<ul style="list-style-type: none"> Charity donations United Nations sent troops to distribute aid
Secondary Responses	<ul style="list-style-type: none"> 'cash for work' programmes are paying to clear rubble schools rebuilt

H	L8: Christchurch Earthquake
Magnitude	Magnitude 6.3 earthquake
Social Impact	<ul style="list-style-type: none"> 181 deaths schools closed for two weeks
Economic Impact	<ul style="list-style-type: none"> businesses closed for a long time 50% of the cities buildings damaged
Primary Responses	<ul style="list-style-type: none"> \$6-7 million of international aid areas were closed to assess damage
Secondary Responses	<ul style="list-style-type: none"> \$898 million in building insurance claims all water and sewage pipes restored within five months

Box 1: Life Before the Industrial Revolution

1. Cottage Industries	<ul style="list-style-type: none"> small-scale business or manufacturing that took place in people's homes mainly used hand tools or basic machines, e.g. handlooms
2. Power Sources	<ul style="list-style-type: none"> animal power – work or energy produced from animals, e.g. horses wind power – work or energy produced from wind, e.g. windmill water power – work or energy produced from water, e.g. mill

Box 2: Developments

3. Inventions	<ul style="list-style-type: none"> steam engine = machine that used coal to heat water and create steam to generate power power loom = a loom that was powered by steam
4. Canals	<ul style="list-style-type: none"> canal = a manmade river canal barges replaced horses as form of transporting goods by 1850, Britain had a network of 4,000 miles of canals
5. Steam Train	<ul style="list-style-type: none"> 1829 = George Stephenson invented the <i>Rocket</i> - a steam train that travelled 30mph the <i>Rocket</i> was used to travel between Liverpool and Manchester

Box 3: Impacts of the Industrial Revolution

6. Railway Age	<ul style="list-style-type: none"> at the start of the period, London to Bristol took 19 hours by horse; by 1841 it took four hours by train by 1841 it took four hours by train Isambard Kingdom Brunel was an engineer who built the Great Western Railway
7. Economic Effects of Transport	<ul style="list-style-type: none"> 1850s and 1860s, rapid economic growth because trains cut the cost of transporting goods 1847 more than 250,000 people worked on the railways their wages helped the economy grow as people had more money to spend

8. Effects of Telegraphs

<ul style="list-style-type: none"> telegraph wires were laid next to railway lines to transmit messages, known as telegrams near-instant communication from one end of Britain to the other by 1902, the whole British Empire was linked together by a network of telegraph cables called the 'All Red Line'

9. Factory Life

<ul style="list-style-type: none"> scavengers = children in factories who dangerously crawled beneath machines to pick up loose cotton workhouses = institutions built to provide factory work and accommodation for the poor and unemployed
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10. Luddites

<ul style="list-style-type: none"> Luddites were textile weavers could not compete with factories so they attacked factories and destroyed machines

12. Urbanisation

<ul style="list-style-type: none"> London: 1810 – one million people; 1911 – seven million people back-to-back houses were cheaply built and were terraced with no back yard and little natural light

13. Disease

<ul style="list-style-type: none"> cholera – caused by contaminated water effects: diarrhoea → dehydration → death phossy jaw – caused by fumes from matchstick factories; destroys the bones in the jaw

Box 4: Reforms (Changes Made)

14. Laissez-faire Attitude	<ul style="list-style-type: none"> government's policy of not intervening in people's lives and leaving society to function by themselves
15. Public Health – Edwin Chadwick	<ul style="list-style-type: none"> Edwin Chadwick – social reformer who said the government should be responsible for the health of the people 1848 First Public Health Act, but was not compulsory 1875 second Public Health Act, was compulsory
16. Joseph Bazalgette	<ul style="list-style-type: none"> An engineer who built 82 miles of sewers between 1859-1875 Sewers linked to a large sewer beneath the Thames, which pumped human waste to sea

17. Social Reform

<ul style="list-style-type: none"> the Factory Act = Passed by Lord Ashley made it illegal for textile factories to employ children under the age of nine the Mines Act = stopped women, girls and boys under 10 working below ground in mines
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21. Education

<ul style="list-style-type: none"> 1880 Education Act = school compulsory for children under 10 1902 Education Act = established a system of secondary schooling
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22. Law and Order

<ul style="list-style-type: none"> no police before industrial revolution – only unpaid parish constables crime increased due to urbanisation Metropolitan Police Act 1829 = 1,000 full time paid London policemen 1856 = Police force made compulsory across England

23. Prison Reform

<ul style="list-style-type: none"> Elizabeth Fry visited Newgate prison and realised the bad conditions led to Gaols Act = prison inspections

Box 5: Key Terms

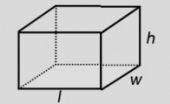
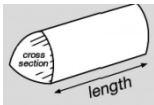
24. Industrial Revolution	<ul style="list-style-type: none"> the mid-1700s to the early 1800s period of time which saw changes in manufacturing methods through increased use of machines period saw a revolution in power use including steam power and railways
25. Manufacture	<ul style="list-style-type: none"> to make something on a large scale using machinery
26. Trade Union	<ul style="list-style-type: none"> a group that fights for workers' rights
27. Industrialisation	<ul style="list-style-type: none"> the process of using factories rather than hand-making products

Year 8 Maths Cycle 3 Knowledge Organiser

A: Percentages

Change a decimal to a percentage	$\times 100$
Change a percentage to a decimal	$\div 100$
Multiplier for increase of n%	1. $100 + n$ 2. Divide by 100
Multiplier for decrease of n%	1. $100 - n$ 2. Divide by 100

B: Volume

Cuboid	$l \times w \times h$	
Prism	Area of cross section \times length	

C: Averages and Range

Mean	Add the numbers up and divide by how many numbers there are
Median	Write the numbers in order and find the middle number
Mode	The most common number
Range	Biggest number – smallest number

D: Surface Area of a Cuboid

Step 1	Area of top and bottom	$2 \times l \times w = 2lw$
Step 2	Area of front and back	$2 \times h \times w = 2hw$
Step 3	Area of left and right side	$2 \times l \times h = 2lh$
Step 4	Total Surface Area	$2lw + 2hw + 2lh$

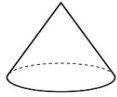
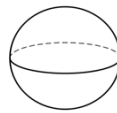
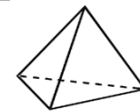
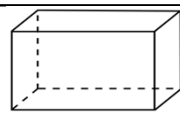
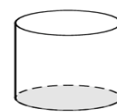
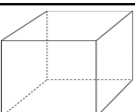

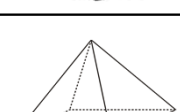
E: Surface Area of a Cylinder

Step 1	Area of two bases	$2 \times \pi r^2$
Step 2	Circumference of the circle	$\pi \times d$
Step 3	Curved surface area	$\pi \times d \times h$
Step 4	Total Surface Area =	$2\pi r^2 + \pi dh$

F : Parts of a 3D Shape

Face	The flat surface of a solid shape
Edge	The side of a shape where two faces meet
Vertex	The corner of a shape where two or more edges meet

G: 3D Shapes

Name	Faces	Edges	Vertices	Diagram
Cone	2	1	1	
Sphere	1	1	0	
Tetrahedron	4	6	4	
Cuboid	6	12	8	
Cylinder	3	2	0	
Cube	6	12	8	
Triangular Prism	5	9	6	
Square Based Pyramid	5	8	5	

Year 8 Music – Knowledge Organiser – Cycle 3 – Blues Music

1. Cycle 3 Keywords

Blues Music	A style of music originating in America at the beginning of the 20 th Century
Musical Ensemble	A group of musicians playing music together
Tablature	A way of writing music down using numbers, most commonly used with the guitar
Scale	A set of musical notes
Bar	Used to group musical beats together, e.g. in 3s or 4s etc.
Lyrics	The words in a song
Chord Sequence	A group of chords played repeatedly

2. Instruments Used in Blues Music

Vocals	The part of a piece of music that is sung
Acoustic Guitar	A guitar that creates its sound naturally without the need to be plugged into an amplifier
Electric Guitar	A mid to high pitched stringed instrument that is plugged into an amplifier so that it can be played at loud volume
Piano	An acoustic musical instrument invented around the year 1700
Electric Bass Guitar	A low-pitched stringed instrument that is also plugged into an amplifier
Harmonica	A small instrument that is blown to create a sound

3. Features of Blues Music

Improvisation	Music that is created in the moment, that is not prepared before it is performed
AAB Lyric Structure	Blues music lyrics are usually sung in this order, i.e. A (sentence 1), A (sentence 1 repeated), B (sentence 2)
12 Bar Blues	A very common chord sequence used in Blues music, lasting for 12 bars
Guitar / Harmonica Solo	A section in a song where the guitar or harmonica takes over from the voice as the main instrument in the song
Blues Scale	A six note scale that is used to improvise in Blues music
Syncopation	The word used to describe any jumpy, off beat rhythm
Shuffle / Swing	A type of rhythm regularly used in Blues music
Slide	A metal or glass tube, commonly used when playing the guitar in Blues music
Dominant 7th Chord	A type of four note chord
Walking Bass Line	A type of bass line often used in Blues music that typically features a different note played on every beat

Religious Studies Cycle 3 – Year 7 : History of Christianity

Section 1: Key Terms

1	Church of the Holy Sepulchre	The church on the site where Jesus was crucified and buried, located in Jerusalem
2	The Roman Catholic Church	The largest Christian Church with around 1.3 billion members. It is headed by the Bishop of Rome, known as the Pope. Its headquarters is in Vatican City (a small state located inside Rome)
3	Protestant	A member or follower of any of the Western Christian Churches that are separate from the Roman Catholic Church; they follow the principles of the Reformation
4	The Eastern Orthodox Church	The second largest Christian Church with around 260 million members. It has many churches which are governed by its bishops. They do not have a Pope but recognise the Ecumenical Patriarch of Constantinople as a leader
5	Denomination	A recognised branch of the Christian Church
6	Evangelism	The spreading of the Christian message to try and convert those who are not Christian
7	The Enlightenment	A period in the 18 th century where people began to turn to reason and science rather than faith
8	Ecumenical	Promoting worldwide Christian unity and cooperation
9	Hillsong Church	An evangelical Christian mega-church

Section 3: Key Events

1	Edict of Milan (313 AD)	An agreement to treat Christians kindly within the Roman Empire
2	Council of Nicea (325 AD)	A meeting of different types of Christians which tried to establish the nature of the relationship between God the Father and God the Son
3	The Great Schism (1054 AD)	The break between what is now the Catholic Church and the Eastern Orthodox churches
4	The Reformation (1517 – 1648 AD)	A period of 'reform' where some Christians rejected the authority of the Catholic Church; this began Protestantism
5	The Enlightenment (1685 – 1815 AD)	A period in the 18 th Century where people began to turn to reason and science rather than faith
6	The Second Vatican Council (1962 – 1965 AD)	A council which met to discuss the relationship between the Catholic Church and the modern world; it took place between 1962-1965

Section 2: Key Figures

1	Jesus Christ (0 – 36AD)	First century Jewish preacher and leader; Christians believe him to be an incarnation of God
2	St Peter (1 – 68 AD)	Said to have founded the Church in Rome; Catholics view him as the first Pope
3	St Paul (5 – 67 AD)	One of the most important figures in Christianity; he founded several Churches in Turkey and Europe
4	Emperor Constantine (272 – 337 AD)	The first Roman emperor to convert to Christianity
5	Martin Luther (1483 – 1546 AD)	Rejected many teachings of the Catholic Church; he taught that the Bible should be the only source of authority for Christians
6	Pope Leo X (1475 – 1521 AD)	The Pope during the reformation
7	Augustine of Hippo (354-430 AD)	Helped to create the doctrine of original sin and made many other significant contributions to Christianity
8	David Hume (1711 – 1776 AD)	A Scottish philosopher who is best known for his focus on using reason rather than faith
9	Pope Francis (1936 AD)	The current leader of the Catholic Church

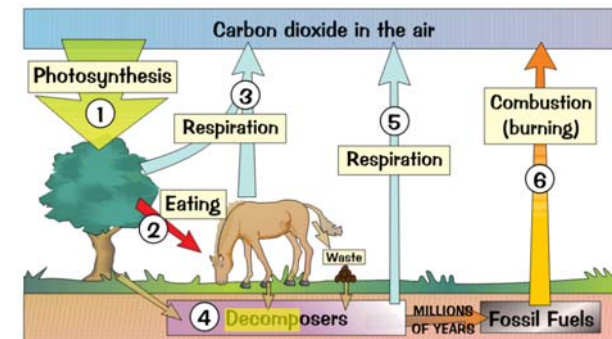
Section 4: Leaders / Titles

1	Pope	The supreme pontiff (greatest priest), the Bishop of Rome and the leader of the Catholic Church
2	Ecumenical Patriarch of Constantinople	"The first among equals" – leader of the Eastern Orthodox Church
3	Caesar	A title used by Roman emperors
4	Patriarch	The highest ranking bishops in Eastern Orthodoxy, Oriental Orthodoxy and the Catholic Church
5	Bishop	A senior member of the Christian clergy, usually in charge of a diocese and empowered to confer holy orders
6	Archbishop of Canterbury	The leader of the Church of England

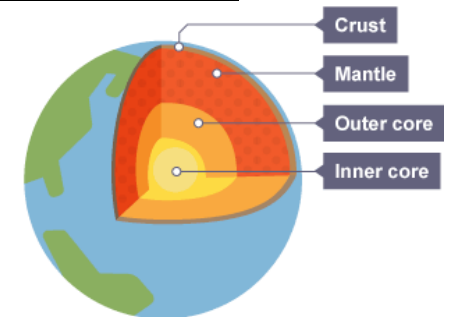
Science: Materials and the Earth

1	Atmosphere	<ul style="list-style-type: none"> the gases that surround a planet on Earth, this is mainly made of nitrogen and oxygen (plus a small amount of carbon dioxide) 	11	Core	<ul style="list-style-type: none"> the centre of the Earth made of iron and nickel
2	Combustion	<ul style="list-style-type: none"> a process that releases carbon dioxide into the atmosphere 	12	Tectonic Plates	<ul style="list-style-type: none"> the Earth's crust is divided up into tectonic plates, which can move slowly earthquakes and volcanoes occur at the boundaries between tectonic plates
3	Photosynthesis	<ul style="list-style-type: none"> a process carried out by plants and algae, which removes carbon dioxide from the atmosphere carbon dioxide + water → glucose + oxygen 	13	Igneous Rock	<ul style="list-style-type: none"> formed from melted underground rock (magma) when cooled slowly underground, it has smaller crystals, e.g. granite when cooled quickly above ground, it has larger crystals, e.g. basalt
4	Respiration	<ul style="list-style-type: none"> a process carried out by all living things, which adds carbon dioxide to the atmosphere glucose + oxygen → carbon dioxide + water 	14	Weathering	<ul style="list-style-type: none"> when rock is broken down into smaller pieces three types: chemical, physical, biological
5	Decomposer	<ul style="list-style-type: none"> an organism, e.g. bacteria or fungi, that breaks down dead matter 	15	Sedimentary Rock	<ul style="list-style-type: none"> formed from layers of sediment (tiny bits of rock) may contain fossils (dead animal and plant remains), e.g. limestone / chalk
6	Deforestation	<ul style="list-style-type: none"> chopping down trees reduces the amount of carbon dioxide that can be removed from the atmosphere 	16	Metamorphic Rock	<ul style="list-style-type: none"> formed when heat and pressure act on existing rocks for long periods of time, e.g. marble / slate
7	Greenhouse Effect	<ul style="list-style-type: none"> when carbon dioxide and methane trap heat from the Sun in the atmosphere 	17	Recycling	<ul style="list-style-type: none"> using old, unwanted materials to make new products uses fewer natural resources, less energy and saves money
8	Global Warming	<ul style="list-style-type: none"> an increase in global mean temperatures caused by the greenhouse effect causing polar ice caps to melt and rainfall patterns to change 	18	Ore	<ul style="list-style-type: none"> a rock containing enough metal compound to make it worthwhile extracting the metal from
9	Crust	<ul style="list-style-type: none"> the outer layer of the Earth, which we live on made of thin, solid rock 	19	Impact	<ul style="list-style-type: none"> economic: affects money, e.g. quarries provide jobs, so have a positive economic impact social: affects groups of people environmental: affects the environment, e.g. quarries are dusty and noisy, so have a negative environmental impact
10	Mantle	<ul style="list-style-type: none"> a thick, semi-liquid layer of rock underneath the Earth's crust 			

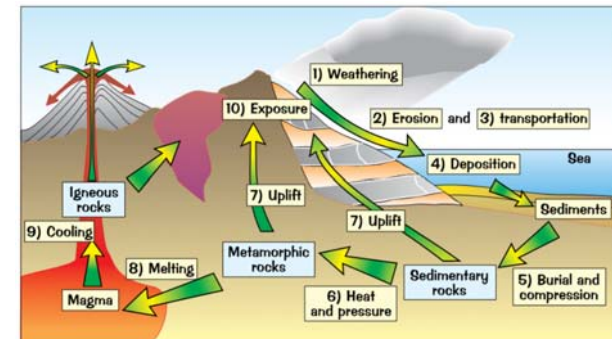
The Carbon Cycle:



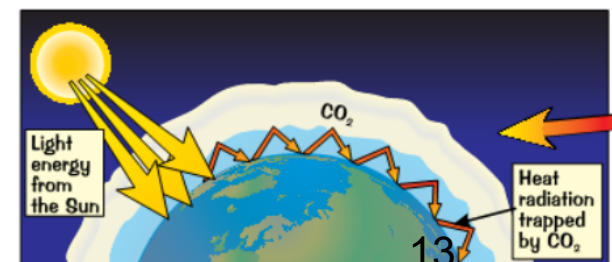
Structure of the Earth:



The Rock Cycle:







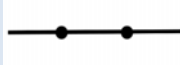

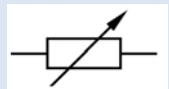
The Greenhouse Effect:



8 Science: Electricity and Magnetism

1	Current	<ul style="list-style-type: none"> a flow of charge (electrons) around a circuit measured in amps (A) formula symbol is I
2	Electrons	<ul style="list-style-type: none"> a negatively charged particle relative charge of -1
3	Potential Difference	<ul style="list-style-type: none"> also called voltage the amount of energy carried by the charge measured in volts (V) formula symbol is V
4	Resistance	<ul style="list-style-type: none"> slows down the flow of current it is measured in ohms (Ω) formula symbol is R
5	Series Circuit	There is only one route for the current to take so the circuit has no branches
6	Parallel Circuit	There is more than one route that the current can take
7	Circuit Diagram	Represents real circuits showing all of the components
8	Cell	A single electrical energy source
9	Battery	Two or more cells put together

10		Filament bulb
11		<ul style="list-style-type: none"> voltmeter measures potential difference
12		<ul style="list-style-type: none"> ammeter measures current

13		Open switch
14		Closed switch
15		Diode
16		<ul style="list-style-type: none"> variable resistor (also called a rheostat)
17	Insulator	<ul style="list-style-type: none"> materials that do not let electricity pass through they have high resistance
18	Static Charge	<ul style="list-style-type: none"> an object can gain a charge if it gains or loses electrons objects gaining electrons will become negatively charged objects losing electrons will become positively charged

19	Attract	Two objects with opposite charges will be attracted to each other
20	Repel	Objects with like charges will move away (repel) from each other
21	Magnets	<ul style="list-style-type: none"> have a north and south pole they have an invisible magnetic field around them like poles repel, unlike poles attract

22	Earth's Magnetic Field	<ul style="list-style-type: none"> the Earth has a magnetic field it has a north and south pole compasses line up with the magnetic field they always point to north
23	Electro-magnet	<ul style="list-style-type: none"> a magnet made from a coil of wire wrapped around a soft iron core with a current passing through the wire you can turn them on or off
24	Increasing the Strength of an Electromagnet	<ul style="list-style-type: none"> more current in the wire more turns on the coil
25	Electric Motor	<ul style="list-style-type: none"> made from a loop of wire in a magnetic field when a current flows through the wire a magnetic field forms around the wire wire feels a force and turns

Working Scientifically

A) Terminology

1	Independent variable	What you are investigating / changing in the investigation
2	Dependent variable	What you will measure in the investigation
3	Control variables	What you will keep the same
4	Hazard	Something that could cause harm
5	Example hazards	Microorganisms, electricity, chemicals, fire
6	Risk	The chance that a hazard could cause harm
7	Repeatable	If the same person does the experiment again and gets similar results
8	Reproducible	If someone else does the experiment and gets similar results
9	Valid	Results that have been collected from a fair test
10	Accurate results	Results that are close to the true value
11	Precise results	Results that are close to mean of the repeated results

B) Unit Conversions

1	km → m	× 1000
2	m → cm	× 100
3	cm → mm	× 10
4	mm → micrometre (μ)	× 1000
5	micrometre (μ) → nanometre (nm)	× 1000
6	mega → kilo	× 1000
7	giga → mega	× 1000

C) Comparing units

1	Mega (M)	1 000 000 times bigger than base unit
2	Kilo (k)	1000 times bigger
3	Deci (d)	10 times smaller
4	Centi (c)	100 times smaller
5	Milli (m)	1000 times smaller
6	Micro (μ)	1 000 000 times smaller

D) Scientific equations

1	Equations	Show relationships between variables
2	The subject of an equation	The variable by itself on one side of the equals sign
3	Changing the subject of an equation	Do the same thing to both sides of the equation until you have the subject you want

Example: changing the subject of an equation

speed = distance / time

Aim: To make distance the subject.

a) Multiply both sides by time:

$$\text{speed} \times \text{time} = \text{distance} \times \text{time} / \text{time}$$

b) Time is now on the top and bottom of the fraction, so it cancels out:

$$\text{speed} \times \text{time} = \text{distance} \times \cancel{\text{time}} / \cancel{\text{time}}$$

c) This leaves distance as the subject:

$$\text{distance} = \text{speed} \times \text{time}$$

Year 8 Spanish – Holidays and Clothes		4) ¿Qué hiciste?	What did you do?	8) ¿Qué llevas?	What do you wear?		
1) ¿Qué es lo más importante? What’s the most important thing?		Visité monumentos	I visited monuments	Llevo / llevamos	I wear / we wear		
Lo más imoprtante para mí es	The most important thing for me is	Compré una camiseta	I bought a t-shirt	Un jersey	A jumper		
la playa	The beach	Saqué fotos	I took photos	Un vestido	A dress		
El sol	The sun	Monté en bicicleta	I rode my bike	Una falda	A skirt		
Las tiendas	The shops	Bailé	I danced	Una gorra	A cap		
Los deportes acuáticos	Water sports	Nadé en el mar	I swam in the sea	Una camiseta	A t-shirt		
La gente	The people	Tomé el sol	I sunbathed	Una camisa	A shirt		
El mar	The sea	Salí	I went out	Una sudadera	A hoodie		
Explorar	To explore	Cómí comida típica	I ate typical food	Unos vaqueros	A pair of jeans		
Descansar	To rest	Escribí SMS	I wrote text messages	Unos zapatos	A pair of shoes		
Tomar el sol	To sunbathe	Conocí a gente nueva	I met new people	Unas botas	A pair of boots		
Ir de compras	To go shopping	Vi lugares de interés	I saw places of interest	9) Descripción de ropa		Clothes Descriptions	
Ser activo	To be active	5) ¿Cómo fue? How was it?		Más... que	Menos...que	More... than	less... than
2) ¿Adónde fuiste? Where did you go?		Me gustó	I liked it	Cómodo / incómodo		Comfortable / uncomfortable	
El año pasado	Last year	Fue genial	It was great	Anticuado		Old fashioned	
El verano pasado	Last summer	Lo pasé bomba	I had a wicked time	Bonito		Pretty	
El invierno pasado	Last winter	Fue un desastre	It was a disaster	Caro / barato		Expensive / cheap	
Hace dos años	Two years ago	6) ¿Qué tiempo hizo? What was the weather like?		10) Este / estos		This / These	
Fui a	I went to	Hizo calor	It was hot	Este (masc)	Esta (fem)	This	
Fuimos a	We went to	Hizo frío	It was cold	Estos (masc)	Estas (fem)	These	
España / Los Estados Unidos	Spain / United States	Llovió	It rained	11) Future tense		El Futuro	
3) ¿Cómo fuiste? How did you get there?		Negó	It snowed	I am going to	Voy	a	infinitive
En coche	By car	7) Una secuencia		You are going to	Vas		llevar
En avión	By plane	El primer día	On the first day	He / she / it is going to	Va		hablar
En autocar	By coach	Luego	Then	We are going to	Vamos		escribir
En tren	By train	Más tarde	Later on	You all are going to	Vais		escuchar
Es rápido	It’s fast	Después	After	They are going to	Van		
Es menos caro	It’s less expensive					16	