

Knowledge Organiser Year 9 Term 4



Name:		Fo	orm group:	Masters of Recall Big Quiz:			
	Spellings						
Week 1	Week 2	Wee	k 3	Week 4		Week 5	Week 6
generic: not specific.	soliloquy: when a	allusion: an in	direct	denouement: when	the	interiority: a character's	realism: a way of thinking
	character speaks their	reference to se	omething	strands of the story a	are	thoughts, feelings,	and acting based on facts
introspection: reflective	thoughts aloud in an	else outside of	f the text.	brought together and	ıd	reactions, and inner	and what is possible.
self-examination and	extended speech to			resolved.		struggles.	
exploration of thoughts	themselves or the	atmosphere: t	the overall				minimalist: someone who
and emotions.	audience.	mood of a text	t.	foreshadowing: whe	en the	crucially: with decisive or	takes as little action or
				writer hints at somet	thing	vital importance.	shows as little
realm: a field or domain	amplification: expanding	captivating: ca	apable of	that will happen late	er in		involvement in a situation
of activity or interest.	upon a word or phrase to	attracting and	holding	the story.		triumph: a great victory	as possible.
	clarify, emphasise, or add	interest.				or achievement.	
scepticism: doubt as to	detail.			vulnerable: exposed	d to		abstract: existing only in
the truth of something.		consciousness	: the state	the possibility of beir	ing	myriad: a countless or	mind. Not representing
	meticulously: very	of being aware	e of and	attacked or harmed.	. In	extremely great number	external reality.
plausibility: the quality of	thoroughly.	responsive to	one's	the need of special c	care.	of people or things.	
seeming reasonable or		surroundings.					disguised: to give a new
probable.	versatile: able to adapt or			merciless: having or		pyrotechnics: stage	appearance to a person
	be adapted.	juxtaposition:	two things	showing no mercy.		fireworks	or thing.
		being seen or	placed				
	non-diegetic: sound that	close together	with	spontaneous: happe	ening		stimulus: anything which
	doesn't exist in the play	contrasting eff	fect.	or done in a natural,	,		suggests ideas which can
	itself.			sudden way without	t		be developed into a
				planning.			drama.

#### **ACADEMIC EXCELLENCE, AMAZING EXPERIENCE**



Look at the information carefully.

Read it three times.

It may help to say it as you read it.

Cover it with your hand or a piece of paper.

Write it out, from memory.



Write

Check what you have written matches the information exactly. Have you got it correct? If so, tick your work to show it is correct.



If it doesn't match exactly, use your purple pen to correct it.

## Repeat.

When you get it 100% correct, move on to the **next** piece of information.

English	Theatre Writing	Year 9 Term 4
Week 1: metaphor	Week 2: dialogue and sentence structure	Week 3: devices
<b>loaded vehicle</b> : a metaphor where the choice of vehicle has powerful connotations for the reader.	<b>fragmentation</b> : a sentence that is not complete because it is missing either a subject, a verb or both.	<b>flaw:</b> a character's notable weakness that a writer can take advantage of to create drama.
universal symbolism: symbolism that is frequently found in literature and art which almost always implies the same ideas.generic symbol:specific symbol:light in general is a universal symbolsunrise is a universal symbol which often represents goodness, truth, or power.	<ul> <li>modification: changing the quality of words by using extra information, usually adjectives and adverbs.</li> <li>expansion: when you make a sentence longer by adding additional phrases or clauses.</li> <li>precise nouns/verbs: using specific words to show exactly what it is you are describing, e.g., 'Ferrari' instead of 'car'. 'Staggered' instead of 'walked'.</li> </ul>	<ul> <li>motivation: what drives a character; the goal for which they are aiming which informs how they behave.</li> <li>universal human truth: an idea or experience that can be understood by anyone, anywhere, in any period of history.</li> <li>allusion: an indirect reference to something else outside of text, for example the bible, mythology, or other stories.</li> </ul>
Week 4: theatre	Week 5: vocabulary	Week 6: structure
<b>suspension of disbelief</b> : understanding that what you are watching is not real but engaging with it as if it is.	<b>external conflict:</b> conflict or struggle which takes place between a character and an outside force.	<b>atmosphere</b> : the overall mood of a text, which is created by the writer's language choices.
<ul> <li>dialogue: when two or more characters are speaking on stage.</li> <li>dramatic irony: the tension created when the audience knows something that the characters do not parallel action/scenes: when separate but connected things are happening onstage at the same time.</li> <li>soliloquy: when a character speaks their thoughts aloud in an extended speech to themselves or the audience.</li> <li>aside: when a character briefly steps out of the action of the play to talk to the audience.</li> </ul>	exploration of thoughts and emotions. foreshadowing: when the writer hints at something that will happen later in the story.	<ul> <li>Freytag's pyramid</li> <li>exposition: when key information is given about setting, character, or situation, usually at the start.</li> <li>rising action: when there is a complication, and the tension starts to build.</li> <li>climax: the most intense part of a story where the protagonist faces the central conflict head on.</li> <li>falling action: when characters react to the climax and the writer starts to wrap the story up.</li> <li>denouement: when the strands of the story are brought together and resolved, and any questions are answered.</li> </ul>

Maths	Geometry	Year 9 Term 4
Week 1: core knowledge of angles	Week 2: deduction	Week 3: transformations
<ul> <li>adjacent: next to or adjoining something</li> <li>interior angles of a triangle: sum to 180 degrees.</li> <li>adjacent angles on a straight-line: sum to 180 degrees.</li> <li>angles around a point: sum to 360 degrees.</li> <li>parallel lines: straight lines that remain a constant distance apart. EF and GH are parallel.</li> <li>corresponding angles = are equal.</li> <li>alternate angles = are equal.</li> </ul>	deduction: means to apply facts to unknown situations to find an answer. $ \underbrace{Example 1}_{x + 10}    \text{ can deduce that}_{x + 10 + 3x + x} = 180 \\ \text{ because I know that angles in a}_{triangle sum to 180 degrees.} $ $ \underbrace{Example 2}_{I \text{ can deduce that } 2x + 1 = x + 8} \\ \text{ because I know the sides of a}_{square are equal.} $	<ul> <li>transform: to change the form or appearance of.</li> <li>In maths we can transform shapes in 4 ways. <ul> <li>Reflection</li> <li>Rotation</li> <li>Translation</li> <li>Enlargement</li> </ul> </li> <li>origin: the coordinate (0, 0). The centre of a 4 quadrant Cartesian plane.</li> <li>invariant: a point that does not move/change.</li> </ul>
Week 4: rotation	Week 5: translation	Week 6: Pythagoras' Theorem
rotate: means to turn. centre of rotation: the point/coordinate we rotate around. quarter turn 90° 180° 270° 360° clockwise anticlockwise	Beware! The mathematical meaning of translate/translation is different to the general definition. <b>translate:</b> means to move a shape left/right, up/down. The shape looks exactly the same but has moved positions. (It is not flipped or rotated.) <b>vector:</b> tells us how to move a shape. It is in the form $\binom{a}{b}$ where <i>a</i> is left/right (horizontal direction) and <i>b</i> is up/down (vertical direction) $\binom{3}{-7}$ means 3 to the right and 7 down.	Pythagoras' Theorem only applies to right angled triangles. Pythagoras Theorem states that: The square of the longest side is equal to the sum of the square of the other 2 sides. $a = b = b = a^2 + b^2 = c^2$ Hypotenuse: the longest side. It is always opposite the right angle and labelled 'c'

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# **Biology – The Challenges of Size**

# Year 9 Term 4

Week 1: Transp	ort into and out of cells	Week 2: Osmo	osis Practical Investigation	Week 3: Transport & Exchange Surfaces
diffusion	the net movement of particles from an area of high concentration to an area of low concentration.	independent variable	the part of the experiment that the scientist changes. In the osmosis practical this is the concentration of the sugar/salt	surface area to volume ratioThe surface of all the exterior (outside) surfaces of an object.(SA:V)Calculated as a ratio.
passive	a process that does not require energy, diffusion is a passive process the number of particles in a given	dependent variable	solution the part of the experiment that the scientist measures. In the osmosis practical this is the change in mass and length of the	Simple unicellular organisms have a cell membrane that is their exchange surface. exchange surface Multicellular organisms, with a
concentration	volume		tissue the part of the experiment that the	smaller surface area to volume ration, have developed specialise exchange surfaces.
concentration gradient	the difference in concentration between two regions	control variable	scientist keeps the same to ensure a fair test. In the osmosis practical this is the	Features of Exchange Surfaces           1. Large surface area to volume ratio.
active transport	the net movement of particles from an area of low concentration to an area of high concentration		volume of the solution, the type of tissue and the time that the tissue is left in the solution for A piece of equipment used to	<ol> <li>A short distance required for diffusion into and out of cells (e.g. a very thin cell membrane, structures such as the alveoli in the lungs and vi</li> </ol>
active	using energy a process that requires energy active transport is a process that requires energy	vernier calliper dilute salt	measure the distance between two opposite sides of a surface A solution of salt and water with a	<ul><li>in the intestine are only 1 cell thick).</li><li>3. A good network of blood capillaries to transport molecules to and from the exchange surface</li></ul>
osmosis	diffusion of water molecules from a region of high concentration to a region of low concentration through a selectively permeable membrane.	solution concentrate salt solution	high water potential A solution of salt and water with a low water potential	which maximises the exchange. Alveoli wall is 1 cell thick → fast gas exchange diffusion
water potential	the concentration of free water molecules osmosis is the movement of water particles from a high water potential to a low water potential		Silgar solution rater potential I ow water potential Vater moves OUT of potato by osmosis Potato DECREASES in mass Cells become FLACCID	Red blood cell
	(dilute $\rightarrow$ concentrated).		<ul> <li>Solute (e.g. sugar)</li> <li>Water molecule</li> </ul>	cell thick.

#### Science

# **Biology – The Challenges of Size**

### Year 9 Term 4

Week 4: The Hea	rt and Blood Vessels	Week 5: Transp	port in Plants
double circulator system	twice during each circuit of	xylem	A vessel in plants that carries water and dissolved minerals from the root to the leaf of a plant.
atria / atrium	the body. Top chamber of the heart. atria = singular / atrium = plural.	phloem	A vessel in plants that carries glucose around the plant to be used for respiration.
ventricle	Bottom chamber of the heart.	root hair cell	A specialised cell that has an increased surface area to allow
artery	A blood vessel that carries blood away from the heart.		the absorption of water in roots. The movement of glucose from
vein	A blood vessel that carries blood towards the heart.	translocation	the leaf to stores in the roots or to growing parts of a plant.
capillary	A small blood vessel, every cell is close to a capillary so that diffusion can happen.	transpiration	The loss of water from leaves by evaporation through the stomata.
red blood cell	A component of blood that carries oxygen to cells.	Trans	piration $\sim$ the loss of water from leaves by evaporation through the stomata
white blood cell	A component of blood that defends the body against infection.	ℓ Light     intensi	ty Temperature 🕆
platelets	A component of blood that helps to form clots.		
plasma	A liquid that contains all components of the blood.	Humidity	Wind 1
right cava tricuspid right vena cava tricuspid	Semi- vave vave vave		

element	An element is a pure substance that is listed in the periodic table and only has one type of atom in it.		
mixture	Aixtures are an impure substance nade from different elements or ompounds mixed together that are ot chemically joined.		
compound	Compounds are a pure substance made from more than one type of element chemically bonded together.		
pure	A substance that consists of only one element or only one compound.		
relative	The average mass of the atoms of		
atomic mass	an element compared with		
(A <sub>r</sub> )	carbon-12.		
relative formula mass (M <sub>r</sub> )	To calculate the M <sub>r</sub> of a substance, you must add up the relative atomic masses of all the atoms present in the formula.		

Week 6: Elements, Compounds and Mixtures

#### **Relative Formula Mass (M<sub>r</sub>) Calculations Table**

Wind 1

Substance	Atoms present	Mr
Hydrogen (H <sub>2</sub> )	2 × H	(2 × 1) = 2
Water (H <sub>2</sub> O)	(2 × H) + (1 × O)	(2 × 1) + 16 = 18
Potassium Carbonate (K <sub>2</sub> CO <sub>3</sub> )	(2 × K) + (1 × C) + (3 × O)	(2 × 39) + 12 + (3 × 16) = 138
Calcium Hydroxide (Ca(OH) <sub>2</sub> )	(1 × Ca) + (2 × O) + (2 × H)	40 + (2 × 16) + (2 × 1) = 74
Ammonium Sulfate $((NH_4)_2SO_4)$	(2 × N) + (8 × H) + (1 × S) + (4 × O)	(2 × 14) + (8 × 1) + 32 + (4 × 16) = 132

French		La technologie.		Year 9	Term 4
Week 1: Sentence starters		Week 2: The pronoun 'y'		Week 3: Verb phrases	
c'est vrai que je dirais que certains disent que selon mon père	it is true that I would say that some say that according to my dad	j'y suis accro j'y passe trop de temps In these two, the pronoun 'it' you have already menti	on it ' <b>y'</b> refers back to the	il est facile de/d' il est dangereux de/d' on peut il est utile de/d' il ne faut pas	it is easy to it is dangerous to we can it is useful to you must not
mes amis pensent que malheureusement	my friends think that unfortunately	e.g. Hier j'ai utilisé mon ordinateur, j' <b>y</b> suis accro. Yesterday, I used my computer, I am addicted <b>to</b> <b>it</b> .		<ul> <li>il est possible de/d'</li> <li>il est malsain de/d'</li> <li>il est amusant de/d'</li> <li>*These structures are follow</li> </ul>	it is possible to it is unhealthy to it is fun to ved by an infinitive. *
Week 4: Les dangers		Week 5: Les avantages		Week 6: Superlatives	
partager des détails personne share personal details online partager des photos sans per share photos without permiss passer trop de temps en ligne spend too much time online	<b>mission</b> ion	rapide utile facile à utiliser faire les devoirs partager les photos	quick useful easy to use homework share photos	We use superlatives to say the <b>most</b> or the <b>least</b> inter biggest/smallest or the be In French, use the definite article, <b>(le/la/les)</b> then <b>plu</b> The adjective must still ag	resting/exciting, the est/worst, and so on. e us or <b>moins</b> .
tchatter avec des inconnu(e)s chat with people you don't know être victime d'un vol d'identité (to) be a victim of identity theft être victime de la cyberintimidation		télécharger les chansons regarder les clips jouer à des jeux poster des photos	download songs watch clips play games post photos	le plus bavard la plus ba le moins grand la moins	<b>varde</b> – the most chatty
(to) be a victim of cyber bully					

Geography	Extreme Weather	Year 9	Term 4
Week 1: tropical storms - causes	Week 2: drought - causes	Week 3: snow - causes	
<ul> <li>warm ocean waters: heat from the ocean's surface fuels storm development.</li> <li>atmospheric conditions: warm, moist air rises from the ocean, creating low-pressure systems.</li> <li>Coriolis Effect: Earth's rotation influences storm direction, steering systems towards the poles.</li> <li>formation: when winds exceed a certain speed, a tropical storm forms, evolving into hurricanes or typhoons.</li> </ul>	<ul> <li>drought: prolonged periods of abnormally low precipitation leading to a lack of water.</li> <li>causes: variability in rainfall, prolonged dry spells, and high air pressure.</li> <li>Climate change impact: rising temperatures and altered weather patterns make drought conditions worse, making them more frequent and severe.</li> </ul>	<ul> <li>These frozen crystals j</li> <li>Wind carries the joine as snow.</li> </ul>	ns into frozen ice crystals. oin together in the clouds. d crystals, making them fall ch the ground, they form a
Week 4: social, economic and environmental impacts of extreme weather	Week 5: how will global warming impact extreme weather?	Week 6: extreme weath	er in the UK - case study
social impacts: effects on people and communities.	increased distribution: storms and droughts will occur	Storm Ciara (February 20	20):
Example- homes damaged or destroyed.	in more places.		ded gusts of up to 97 mph,
economic impacts: effects on financial well-being. Example- loss of crops environmental impacts: effects on the natural world. Example- erosion.	<ul> <li>increased frequency: storms and droughts will occur more often</li> <li>increased severity: storms and droughts will become more severe (worse).</li> </ul>	- Transport Disruption cancellations, train o occurred due to fallo	n: Numerous flight delays, and road closures en trees and debris. er 20,000 homes experienced

Thematic study: state oppression	Year 9 Term 4
Week 2: Persecution	Week 3: Nuremburg Laws
antisemitism: hostility or prejudice towards Jewish people	<b>Nuremburg Laws:</b> passed in 1935 the aim of these laws was to take away the rights of the Jewish citizens within Germany.
people.	<b>1935</b> Jewish people are not allowed to marry non-Jewish people.
someone else has done.	<b>1938</b> Jewish people are not allowed to go to university.
In Germany, Jews made up less than 1% of the population. In a country of 67 million people only 500,000 were Jews	<b>1939</b> Jewish people can be thrown out of their homes at any time.
Week 5: Ghettoes	Week 6: Final Solution
	<b>Holocaust:</b> a period of time between 1942-45 where 6
Jewish people they were often walled areas within the	million Jews were murdered by the Nazis.
city.	
	Death Camps: a camp created in the Holocaust
<b>Poland</b> : invaded by Germany in 1939 contained 3 million Polich Jours	deliberately to kill people.
minori Polish Jews.	Wannsee Conference: the meeting held in January
Warsaw Ghetto: located in Poland was the largest ghetto used to contain around 138,000 Jewish people.	1942 to discuss how Jewish people would be taken to the death camps.
escalated, get worse or increased	<b>generide</b> : the killing of a group of people with the sim
collaborators: someone who worked with the Nazis.	<b>genocide</b> : the killing of a group of people with the aim to destroy that group completely.
	Week 2: Persecution         antisemitism: hostility or prejudice towards Jewish people         persecution: cruel or unfair treatment of a group of people.         scapegoat: a person that is blamed for something that someone else has done.         In Germany, Jews made up less than 1% of the population. In a country of 67 million people only 500,000 were Jews         Week 5: Ghettoes         Ghetto: developed in 1940 as a way of containing Jewish people they were often walled areas within the city.         Poland: invaded by Germany in 1939 contained 3 million Polish Jews.         Warsaw Ghetto: located in Poland was the largest

Religious Studies	Religion, Peace, and War	Year 9 Term 4
Week 1: Holy War	Week 2: Weapons of Mass Destruction	Week 3: victims of war
<ul> <li>Jihad: a struggle or fight to be a good Muslim.</li> <li>Lesser Jihad: defending Islam from threat. Some people still take up arms against anybody they see as an enemy of Islam. However, many Muslims believe that lesser jihad is of less relevance today than in the past when Muslims were being persecuted.</li> <li>Greater Jihad: making the effort to be a good Muslim through a personal struggle to improve spiritually. It is a duty and an act of worship.</li> <li>Holy war is one where people believe that God is on their side. Wars are mentioned in both the Old Testament and the Qur'an. In the past Holy wars have been fought over territory or to convert people e.g., the crusades.</li> </ul>	<ul> <li>WMD: a nuclear, biological, or chemical weapon able to cause widespread devastation and loss of life.</li> <li>Weapons of mass destructions (WMD) are weapons that can bring significant damage to humans, infrastructure, and the environment. They are often referred to as indiscriminate weapons. There are three main kinds of WMD. Biological, Chemical and Nuclear.</li> </ul>	Aid: help, typically of a practical nature. The Parable of the Sheep and Goats In this parable, Jesus uses the example of a shepherd who separates his sheep from his goats to help his followers understand what judgement will be like. Jesus explains that people will be separated into two groups: those who have lived good lives and believed in God will be put on one side and have a place in Heaven those who have rejected the belief in God and sinned in their lives will be placed on the other side and will go to Hell. Jesus explains that helping a person, whoever they are, is just the same as helping Jesus himself and is therefore a duty for all Christians.
Week 4: pacificism	Week 5: forgiveness	Week 6: forgiveness
<ul> <li>pacifism: the belief of people who refuse to take part in war and any other form of violence.</li> <li>peace-making means working to prevent war using peaceful methods. For example, a peace conference may bring together all the countries involved and work to solve conflicts before violence is used.</li> <li>scripture:     'Blessed be the peacemakers'     The Ten Commandments 'Thou shall not kill'</li> </ul>	forgiveness: the action or process of forgiving or being forgiven. reconciliation: the restoration of friendly relations.	Scripture: Then Peter came and said to him, "Lord, if another member of the church sins against me, how often should I forgive? As many as seven times?" Jesus said to him, "Not seven times, but I tell you, seventy-seven times." Matthew 18:21-22 "For if you forgive other people when they sin against you, your Heavenly Father will also forgive you. But if you do not forgive others their sins, your Father will not forgive your sins" Matthew 6:14-15

PSHE	<b>Relationships and Families</b>	Year 9 Term 4
Week 1: grooming	Week 2: consent	Week 3:
<b>grooming:</b> grooming is when someone builds a relationship, trust and emotional connection with a child or young person so they can manipulate, exploit, and abuse them.	<b>consent:</b> permission for something to happen or agreement to do something. Consent should be clear when given, signs of consent can be:	<b>forced marriage:</b> marriage which family members or guardians enforce by making the couple feel as though they have no alternative or by actively threatening them.
Young people are targets for grooming because they can be vulnerable. They may have multiple vulnerabilities, such as a difficult home life, a learning disability or be a victim of bullying at school. The groomer always has the most power. They may be older, have more money, or influence in the area/community.	<ul> <li>Verbal consent</li> <li>Non-verbal consent</li> <li>non-verbal consent: there are ways to show a willingness to give consent without using words. Examples of giving nonverbal consent may include Head nod. Thumbs up.</li> <li>verbal consent: when a person verbally agrees.</li> </ul>	<b>arranged marriage:</b> marriage which family members or guardians may help 'arrange' by finding suitable partners and matching them together. This is consented to by the couple, although sometimes coercion or persuasion methods are used.
Week 4: revision	Week 5: Revision	Week 6: revision
marriage: the legally or formally recognized union of two people as partners in a personal relationship. Civil partnership: a legally recognised union with rights	<b>domestic violence:</b> violent or aggressive behaviour within the home, typically involving the violent abuse of a spouse or partner.	<b>honour-based violence:</b> honour-based abuse is a crime or incident committed to protect or defend the 'honour' of a family or community.
similar to those of marriage, created originally for same-sex couples in areas where they were not legally allowed to marry.	<b>financial abuse:</b> controlling access to money or resources. They might take wages, stop someone working, or put a person in debt.	Types of honour-based violence: <ul> <li>Forced marriage</li> <li>Domestic abuse</li> <li>Threatening behaviour etc.</li> </ul>
<b>same sex marriage:</b> a relationship in which two people of the same sex (same gender) live together as a family in a governmentally recognised marriage.	<b>emotional abuse:</b> when an abuser uses words and language that are targeted to cause upset or distress to the person. This can be constant.	
	<b>physical abuse:</b> not only hitting. They might restrain or throw objects. They might pinch or shove a person and claim it's a 'joke'.	

Computing	Artificial intelligence	Year 9 Term 4	
Week 1: artificial intelligence	Week 2: bots	Week 3: different types of bots	
<b>artificial intelligence:</b> is the simulation of human intelligence processes by machines, such as computer systems.	<ul> <li>bot: short for robot.</li> <li>It is a software application programmed to run specific tasks as part of another computer program or to simulate human activity.</li> <li>Bots are designed to automate tasks on their own without human intervention.</li> </ul>	<ul> <li>week 3: different types of bots</li> <li>chatbots: simulate conversations with a human being. One of the first and most famous chatbots prior to the web was Eliza, an NLP program developed in 1966 as a Massachusetts Institute of Technology research project.</li> <li>social bots: these bots are often considered opinion bots, influence discussions with users on social media platforms.</li> <li>shopbots: many of these programs shop around the web and locate the best price for a product a user is interested in buying.</li> </ul>	
Week 4: coding	Week 5: iteration	Week 6: operators	
sequence: the order which the computer will run code, one line at a time. (One of the building blocks of coding.) selection: a decision made by a computer choosing what code should be run when certain conditions are met. One of the building blocks of coding.	<pre>iteration iteration iteration iteration: when a section of code is repeated several times. Also known as forever loop. (One of the building blocks of coding.) for loop: is count controlled. while loop: is condition controlled.</pre>	<pre>comparison operators: symbols used to represent actions, such as (&gt;) greater than (&lt;) less than (=) equal to. boolean expressions: sometimes you will want to use the additional expressions, AND, OR, NOT.</pre>	

Music	Music Theory	Year 9 Term 4
Week 1: elements of music	Week 2: note values	Week 3: Medieval, Renaissance and Baroque periods of music
dynamics: the volume of a piece of music. pp, p, mp, mf,	semibreve: a note lasting 4 beats	Medieval: c. 1150-c. 1400, instruments featured
f,ff, crescendo.		were the flute, recorder and lute. The main type of music was the Gregorian chant.
tempo: the speed of a piece of music. lento, adagio,	minim: a note lasting 2 beats 🛛	
andante, moderato, allegro, presto.	crotchet: a note lasting 1 beat	<b>Renaissance:</b> (c. 1400-c. 1600), heavily featured choral music with a big focus on harmony. Songs
structure: the sections within a piece of music	<b>quaver:</b> a note lasting half a beat	included madrigals, masses and motets. Composers
pitch: the high and low notes	N N	such as Byrd, Tallis & Purcell. The harpsichord was a key instrument.
texture: the musical layers	<b>semiquaver:</b> a note lasting a quarter of a beat	
rhythm: the arrangement of notes and rests		<b>Baroque:</b> (c. 1600-c. 1750), keys were introduced, as well as new instruments such as the oboe, bassoon
harmony: complimentary notes played simultaneously		and cello. Orchestras were formed.
Week 4: Classical, Romantic & 20 <sup>th</sup> and 21 <sup>st</sup> century.	Week 5: musical elements	Week 6: notes on the stave
<b>Classical:</b> (c. 1750-c. 1830) new structures of music; sonata and symphony. The piano replaced the	<b>treble clef:</b> represents notes played above a middle C. Played with right hand.	Treble Clef:
harpsichord. Composers include Mozart, Beethoven and		E G B D F
Haydn.	<b>bass clef:</b> represents notes played below a middle C. Played with left hand.	
Romantic: (c.1830-1920) bigger orchestras, composers	<b>bar:</b> how we split music up.	Bass Clef: FACE
pushed musicians and instruments to their extremes,	<b>sharp:</b> raises the pitch of a note by a	Notes On Lines
very difficult virtuoso pieces. Composers included Chopin & Liszt.	semitone. Played as the black note to the	
& LISZI.	right.	G B D F A
20th and 21st century: (c. 1920-present), composers	<b>flat:</b> lowers the pitch of a note by a	and and a second s
broke the rules and experimented with styles and techniques, such as Stravinsky & Shostakovich.	semitone. Played as the black note to the left.	Notes In Spaces
	<b>natural:</b> cancels out a flat or sharp. Played as the normal white note.	A C E G

Design and Technology		Year 9 Term 4
Week 1: hand tools	Week 2: CAD and CAM	Week 2: metals
<ul> <li>junior hacksaw: used to make small and fine cuts in a range of materials, including timbers and plastics, but most commonly metals.</li> <li>centre punch: used to mark the centre point of a hole when drilling hard materials, such as metals.</li> <li>hand files: used to remove fairly small amounts of material and smooth the edges. They can be used with metals, plastics and timbers.</li> </ul>	<ul> <li>3 advantages of Computer Aided Designing (CAD) are:</li> <li>it is easier to make changes to a design;</li> <li>designs can be viewed from different angles;</li> <li>it can be more precise than drawing by hand.</li> <li>3 advantages of Computer Aided Manufacturing (CAM) are: <ul> <li>it is cheaper than making by hand;</li> <li>lots of identical products can be made quickly;</li> <li>it is much quicker than making by hand.</li> </ul> </li> </ul>	ore: a naturally occurring solid material from which a metal can be extracted. malleable: the property a material displays that mean it can be bent and shaped into different forms.
Week 4: metals	Week 5: user-centred design	Week 6: creating prototypes
<ul> <li>ferrous metal: contains iron. They often rust when exposed to oxygen and moisture. Examples include mild steel and cast iron.</li> <li>non-ferrous metal: do not contain iron. Examples include aluminium and copper.</li> <li>alloys: metals that are a mixture of two or more metals, or a mixture of a metal and another element. Examples include brass and steel.</li> </ul>	<ul> <li>user-centered design: a creative approach that focuses on making products by considering the needs, preferences, and experiences of the people who will use them.</li> <li>iterative design: the process of making repeated improvements to a product by testing, receiving feedback, and then refining the design based on that feedback to create a better product.</li> </ul>	<ul> <li>Designers create prototypes to:</li> <li>test ideas;</li> <li>see details;</li> <li>fix problems with the design;</li> <li>show others their ideas;</li> <li>test materials.</li> </ul>

Art A	Art and Design – Key Concepts	Year 9 Term 3
Week 1: blending colour	Week 2: tint of colour	Week 3: tone of colours
<ul> <li>The term "blending colour" generally refers to the process of combining different colours together in a way that creates a smooth transition or gradient between them. In painting, blending colours often involves mixing different paint hues on a palette or directly on the canvas to achieve a gradual shift from one colour to another.</li> <li>a) Overall, blending colours is a technique used to avoid harsh, abrupt transitions between different hues, resulting in a more visually appealing and harmonious appearance in ar and design.</li> </ul>	becomes lighter and less saturated. <b>tinting</b> : technique used in painting, graphic design, and other visual arts to achieve variations in colour intensity and brightness.	<ul> <li>tone of colour: a variation in the intensity or brightness of a colour.</li> <li>It is created by adding both black and white (grey) to the original hue. Unlike shades (which are created by adding only black) and tints (which are created by adding only black) and tints (which are created by adding only white), tones involve a combination of both, resulting in a colour that is both darker and less saturated.</li> </ul>
Week 4: shade of colour	Week 5: craft	Week 6: key characteristics of craft
shade of colour: a variation of a colour that is creat by adding black to the original hue. This darkens the colour and reduces its lightness, resulting in a deeper and more subdued version of t original colour. Shades are often used in artistic and design contexts to add depth, create shadows, and provide contrast.	hand, using traditional techniques and materials. craftsmanship: a high level of manual dexterity,	<ul> <li>Key characteristics of craft include:</li> <li>Skill and Technique:</li> <li>Functional or Decorative Purpose:</li> <li>Traditional Methods:</li> <li>Materials:</li> <li>Cultural Significance:</li> </ul>

# Knowledge Recall Questions

Step 1 – learn the knowledge using your recall book and look, cover, write, check, correct.

Step 2 – from **memory**, complete the weekly recall questions. These are mandatory. Use family and friends to test you ©.

Step 3 – any question you cannot confidently answer, go back and learn the knowledge again.

Science Biology -	The Challenges of Size	Year 9 Term 4
Week 1: Transport into and out of cells	Week 2: Osmosis Practical Investigation.	Week 3: Transport & Exchange Surfaces
Explain how plants absorb mineral salts from the soil when they are in a lower concentration than the plant cells.	What will happen to the mass of a slice of cucumber when it is placed into a solution with a dilute glucose solution?	Explain how the small intestine is adapted to be efficient at diffusing nutrients into the blood.
Week 4: The Heart and Blood Vessels	Week 5: Transport in Plants	Week 6: Elements, Compounds and Mixtures
Describe the pathway of blood through the heart.	Describe environmental conditions that would lead to guard cells closing stomata in plants.	Calculate the relative atomic mass (M <sub>r</sub> ) of: Methane – CH <sub>4</sub>
		Sulphuric acid - H <sub>2</sub> SO <sub>4</sub>
		Glucose – C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>

French	La technologie	Year 9	Term 4
Week 1: Sentence starters	Week 2: The pronoun 'y'	Week 3: Verb phrases	
<i>This section includes prior knowledge.</i> Put the sentence starters back in the correct order.	<i>This section includes prior knowledge.</i> Complete the sentence:	This section includes prior kr il est facile de/d'	owledge. we can
que vrai c'est =	The pronoun 'y' refers	il est dangereux de/d'	it is dangerous to
ma selon mère =	Translate the sentences into English : 1. D'habitude j'utilise mon ordinateur tous les jours,	on peut il est utile de/d' il ne faut pas	it is unhealthy to it is easy to it is fun to
que je dirais que =	j'y suis accro.	il est possible de/d' il est malsain de/d' il est amusant de/d'	it is possible to you must not it is useful to
que pensent copains mes =	<ol> <li>Normalement j'utilise ma tablette le matin, j'y passe trop de temps.</li> </ol>	Translate the sentences belo	ow:
disent certains que =	Use the two sentences above to help you write a sentence in French, you must include the pronoun 'y' and a technology item you learnt last term.	We can travel abroad.	
How would you say, 'some say that I am shy' in French?		It is fun to listen to music.	

French	La technologie	Year 9	Term 4
Week 4: Les dangers	Week 5: Les avantages	Week 6: Superlatives	
Translate the sentences into French:	This section includes prior knowledge.	This section includes prio	r knowledge.
1. You must not share personal details online.	Translate the sentences into French:	Summarise the superlativ	ves below.
	I love to use my smartphone; it is true that it is quick.		
2. You must not share photos without permission.		Unjumble the translation	IS :
3. You must not spend too much time online.	I like to use social media; it is true that it is easy to use.	1. He is the most ch est / plus / le / il	•
<ol> <li>You must not chat with people you don't know.</li> </ol>	I prefer to use my console; it is true that it is useful.	<ol> <li>She is the least ir intelligente / mo</li> </ol>	-
5. You must not steal someone's identity.	On a computer we can do homework.		
<ol> <li>You must not bully others.</li> </ol>	·	3. He is the most la plus / paresseux	•
	On a mobile phone we can share photos.		
In French, write your top three pieces of advice to		4. She is the most f	
keep people safe online:	On a tablet we can play games.	la / plus / elle / a	musante / est
1			
2			
3.			

Geography	Population	Year 9 Term 3
Week 1: key Terms	Week 2: key terms	Week 3: natural increase
1. Define population	1. What is life expectancy?	1. Define natural increase
2. What is population density?	2. What is birth rate?	2. Define natural decrease
3. What is the difference between a sparse and dense population?	3. What is death rate?	
	4. What is infant mortality?	<ol><li>What is the difference between natural increase and decrease?</li></ol>
Week 4: China's population	Week 5: China's one child policy	Week 6
1. What is China's population?	<ol> <li>Between which years did China's population rapidly increase?</li> </ol>	
2. Which two regions are the most densely populated in China?	2. What is China's one child policy?	
	3. What year did China launch its one child policy?	
	4. What is China's population growth %?	

Music	Music Theory	Year 9 Term 4
Week 1: elements of music	Week 2: note values	Week 3: periods of music
<ol> <li>Order the dynamic markings from quietest to loudest.</li> </ol>	1. Draw a semibreve, how many beats does it last for?	<ol> <li>Which period of music features the flute, recorder and lute?</li> </ol>
2. What is structure?	2. Draw a minim, how many beats does it last for?	
3. What is pitch?	3. Draw a crotchet, how many beats does it last for?	2. When was the Renaissance period of music?
4. What is tempo?		
5. What is texture?	4. Draw a quaver, how many beats does it last for?	3. What was introduced in the Baroque period of music?
6. What is rhythm?	<ol> <li>Draw a semiquaver, how many beats does it last for?</li> </ol>	
7. What is harmony?		

Music	Music Theory	Year 9 Term 4
Week 4: periods of music continued	Week 5: musical elements	Week 6: notes on the stave
<ol> <li>Which period replaced the harpsichord with the piano?</li> </ol>	1. What clef tells you to play with your right hand?	1. What note sits on the third line of the stave?
<ol> <li>Which composers were examples in the Romantic period of music?</li> </ol>	2. What clef tells you to play with your left hand?	2. What note sits on the fifth line of the stave?
	3. What does a bar do?	3. What note sits on the first line of the stave?
3. Which period of music broke the rules?	4. How do you play a sharp?	4. What note sits in the first space on the stave?
	5. How do you play a flat?	
	6. How do you play a natural?	5. What note sits in the third space on the stave?

Design and Technology		Year 9 Term 4
Week 5: Hand Tools	Week 2: sketching initial ideas	Week 6: metals
<ol> <li>Which material do we commonly cut with a junior hacksaw?</li> </ol>	<ol> <li>Give 3 advantages of Computer Aided Designing (CAD):</li> </ol>	1. What is an ore?
2. What is the name of the tool that we use to create the centre point of a hole when drilling metals?	<ol> <li>Give 3 advantages of Computer Aided Manufacturing (CAM):</li> </ol>	2. What is the meaning of the term 'malleable'?
3. What is a <b>hand file</b> used for?		
Week 4: Metals	Week 5: creating prototypes	Week 6: creating prototypes
1. What is a ferrous metal?	1. What is the definition of 'user-centred design'?	Why do designers create prototypes? Give 5 distinct reasons:
2. What is a non-ferrous metal?	2. What is the definition of 'iterative design'?	
3. What is an alloy?		

Art	Art and Design – Key Conce	pts Year 9 Term 4
Week 1:blending colour	Week 2: tint of colour	Week 3: tone of colours
Describe what <b>blending colour means</b>	Describe what <b>a tint of colour is</b>	Describe contrasting colours
Week 4: shade of colour	Week 5: craft	Week 6: key characteristics of craft
Describe a <b>shade of colour</b>	Describe what <b>craft</b> is	Describe the key characteristics of craft