

Year 9

Learning Cycle 2

Knowledge Booklet

Student Name:_____

Instructions on how to use your learning cycle booklet:

The aim is for all students to be fully prepared and ready for all assessments in all subjects.

To help them with this we have a whole school revision/study strategy – SORT.



There are three learning cycles throughout Year 9. At the beginning of each learning cycle students will be issued with a booklet that details all the knowledge they are expected to know and recall by the end of the learning cycle.

Each day, for home learning, students are set two activities that support in memorising and recalling this key knowledge.

The assessment windows for Learning Cycle 2 will be 6th – 10th February and 20th – 24th February.

Summarise	Organise	Recall	Test
Summarise and condense any class notes, revision guides and revision.	Organise your revision materials by topic/subtopic. Traffic light your PLC sheets to identify areas of weakness or gaps (Red/Amber) that need to be prioritised.	Use active recall and spaced repetition to memorise your knowledge organisers until you can recall the information e.g Look, cover, write or self-testing	Use low stakes online tests/quizzes and answer high stakes past paper/sample questions to check and apply knowledge and understanding
Strategies			
Cornell Notes	How to use your PLC	Look cover & test	Low stakes
Flash cards	How to schedule your home	Leitner system	Self-quizzing
Mind mapping	learning and stick to it!	Blurt it	Quiz each other
Revision clocks		Transform it	Online quizzes
Dual coding			High stakes
			Exam style questions

Instructions on how to use your learning cycle booklet:

Learning cycle 2 will focus on the SORT strategies:



Summarise	Organise	Recall	Test
Cornell Notes	How to use your PLC	Look cover & test	Self-quizzing
Flash cardsMind mapping	How to schedule your home learning and stick to it!	Leitner systemBlurt it	Quiz each otherOnline quizzes

Using the Personal Learning Checklists (PLC)

- Review each key idea on the PLC
- In the Organise column write R, A or G depending on your understanding. Red = no understanding, Amber
 Some understanding but needs work, Green Secure understanding
- When you complete a **Summarise** activity for each key idea, tick the S column
- When you complete a Recall activity for each key idea, tick the R column
- When you Test by self-quizzing or complete an online-quiz for each key idea, tick the T column

Videos explaining all of the SORT strategies can be found on the Student SharePoint

Home Learning timetable - when I am going to complete my home learning

				, , , , , , , , , , , , , , , , , , ,	
	Mon A	Tue A	Wed A	Thu A	Fri A
Core activity	Reading	Complete Maths goal	Reading	Complete Maths goal	Reading
Subject 1	Geography	Science	Maths	English	Spanish
Subject 2	RE	Art	Food	History	Computing
	Mon B	Tue B	Wed B	Thu B	Fri B
Core activity	Reading	Complete Maths goal	Reading	Complete Maths goal	Complete Maths goal
Subject 1	Geography	Science	Maths	English	Spanish
Subject 2	Music	Drama	DT	History	

Expected time home learning will take:

Activity	Time
Reading	30 mins
Complete Maths	30 mins a goal
All other activities	15 mins each

Platform	User Name	Password
School system		
Complete Maths		
Educake		
Memrise		

Reading for Pleasure Record

Book Title	Page Number from and to.	Summary	Adult Signature	Book Title	Page Number from and to.	Summary	Adult Signature

Reading for Pleasure Record

Book Title	Page Number from and to.	Summary	Adult Signature	Book Title	Page Number from and to.	Summary	Adult Signature

English				
Key Ideas	S	0	R	T
I understand the viewpoint of a range of protest poets.				
I can analyse language methods used by protest poets.				
I can analyse structure methods used by protest poets.				
I can write an extended critical analysis of a poem.				
I can compare poets' ideas and methods.				
I understand the plot and character of 'Noughts and Crosses' (play).				
I can analyse the language used to convey ideas about oppression.				
I can analyse features of structure and the play form.				
I understand how the historical position of marginalised people influenced the writer.				

Maths				
Key Ideas	S	O	R	Т
I can calculate compound interest				
I can calculate reverse percentages				
I understand the laws of indices				
I can expand brackets and simplify expressions				
I can find the nth term of a sequence				
I can represent inequalities on number lines				
I can solve equations				
I can factorize an expression				
I can change the subject of a formula				
I can write numbers in standard index form				
I can calculate with SI form				
I can apply the parallel line angle properties				

Science				
Key Ideas	S	0	R	Т
I can select the best way to separate a mixture and explain how distillation and filtration work.				
I can recall the structure of an atom and correctly label a diagram of an atom from memory.				
I can draw the electronic configuration for the first 20 elements correctly using electron shells.				
I can describe what happens when a metal and non-metal form an ionic bond.				
I can describe what happens when non-metals form covalent bonds.				
I can describe what the reactivity series is.				
I can use the reactivity series to explain displacement and extraction of metals from their ores.				
I can describe the environmental impacts of mining for metals and justify why metals should be recycled.				

Geography

Key Ideas	S	0	R	T
I can explain how China industrialised				
I can explain the future of manufacturing in Asia				
I can explain the problems and benefits of Chinese investment in Nigeria				
I can explain the reasons for Nigeria's importation of rice from India				
I can explain the problems of taxation in India				
I can explain the problems of the international oil industry				
I can predict the future trends of global trade				

History				
Key Ideas	S	0	R	T
I can explain what the Treaty of Versailles was				
I can explain what happened to Germany in the 1920s				
I can explain how Hitler was elected				
I can explain how the Jewish people were persecuted				
I can explain how the Jewish people were imprisoned				
I can explain what the extermination camps were				
I can explain how the Jewish people were liberated				

Spanish

Key Ideas	S	0	R	Т
I can pronounce new words confidently in Spanish				
I can form comparatives accurately				
I can form superlatives accurately				
I know how to form regular verbs in the present tense				
I know how to form and use the imperfect tense for describing the past				
I can recall how to form and use the conditional				
I can recall high- frequency vocabulary on the topic family and relationships				

Computing **Key Ideas** I know that Python is a highlevel coding language I can explain how selection can be used to make decisions in the code I know that iteration means the part of the code that repeats. Two examples of iteration are While loops and For loops I know that Sequence is when one part of the code follows the next. I can identify variables, strings and lists in Python code I can explain what a network is and how this relates to the Internet I can define what WAN, LAN and PAN networks are and when they are used.

Key Ideas	S	0	R	Т
I can understand and explain the meaning of the 7 observational drawing key words, tone, texture, shape, scale, line and composition.				
I can discuss and compare the different viewpoints of WW1.				
I can empathise with the people affected by WW1.				
I understand how to research and select information to develop ideas.				
I understand how to develop my ideas using the work of WW1 artists, poets and people to design and create a final outcome.				
I understand how to use my chosen materials with skill and flair.				

Art

Key Ideas I can use specifications to help develop work and explain why they are used in the design process. (ACCESS FM) I am able to describe why it is important to design products , considering sustainable use of materials and product lifespan (6Rs) I can describe the importance of ergonomics and identifying how we research the needs of intended	DT				
to help develop work and explain why they are used in the design process. (ACCESS FM) I am able to describe why it is important to design products , considering sustainable use of materials and product lifespan (6Rs) I can describe the importance of ergonomics and identifying how we research	Key Ideas	S	0	R	Т
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the importance of ergonomics and identifying how we research	is important to design products , considering sustainable use of materials				
users.	the importance of ergonomics and identifying how we research the needs of intended				

Food

Key Ideas	S	0	R	T
I understand the importance of a healthy balanced diet				
I can list the roles and responsibilities of an environmental health officer.				
I can discuss a range of factors that affect consumer choice.				
I can explain how a quiche sets during the cooking process.				
I understand the importance of ensuring meat is cooked thoroughly to prevent food poisoning.				
I can explain how to ensure a hygienic and safe kitchen environment.				
I can describe how to reduce food waste by using left overs.				

RE

Key Ideas	S	0	R	Т
I can define the key parts of the Equalities Act				
I can define key terms linked to questioning God or religious belief				
I can explore different points of view on the existence of God				
I can consider how community life can guide some non-religious people in making moral decisions				

MUSIC

Key Ideas	S	0	R	T
I am able to understand what tablature is and how to read it.				
I can find notes on a guitar.				
I am able to understand where the different drums and cymbals are on a drum kit and how their make different sounds.				
I am able to explain the concept of a 'genre' to someone and can pick out key characteristics of one.				
I know what chords are and can work out how to play them by reading a chord diagram.				

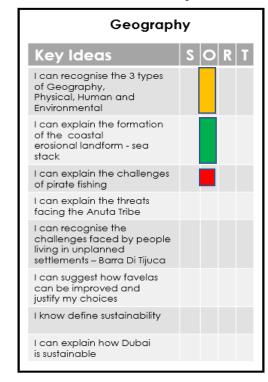
Drama				
Key Ideas	S	0	R	Т
I can understand the themes and context within a play.				
I can understand the conventions of non- naturalism and apply them in practical work.				
I can understand the playwright's purpose and intentions.				
I can learn and memorise a script.				
I can create a clear character and rehearse and perform a scene from a play.				
I can devise from a stimulus.				





At the beginning of a learning cycle students are to RAG the key ideas they are studying by self-assessing if they are Red – no understanding, Amber – some understanding, Green – full understanding. They are then to put a R, A or G in the **organise** column.

- 1) Students will then prioritise the Red and Amber key ideas when they are revising.
- 2) Students are to summarise the knowledge for each key idea, then use recall strategies before self-quizzing.



Year 9 English Knowledge Organiser Learning Cycle 2– Protest Poetry

of oppressed people.

Purpose?

	1. H	ow to Analyse a Poem	3. Key Poems	4. Subject Vocabulary	
M - Meaning M C - Context			3a = Songs for the People by Frances Ellen Watkins Harper In this poem, the poet invokes the idea of the poet as a song-maker and imagines making songs for the oppressed, imagining the	4a = poem (noun) a piece of writing in which the words are arranged in separate lines and are chosen for their beauty and sound.	
C		e the poet's experiences and beliefs?	magic of poetry and song as ending war and crime.	4b = stanza (noun) A group of lines in a poem; a verse.	
L - Language L	meanings and connotations? Has the writer used any		Which words are most important? What are their meanings and connotations? Has the writer used any similes, metaphors or personification? 3b = The Hill We Climb by Amanda Gorman A powerful call to action focusing on themes of hope, unity healing, and resilience, read at		4c = language (noun) words or methods (techniques) used by writers to present their meanings or create effects.
T – Tone T I – Images I	What ar	ne does the poet adopt? e the most important images in the How do they add to the writer's idea(s)?	3c = Mother to Son Langston Hughes The poem follows a mother speaking to her son about her life and the struggles she has faced and then urges him to continue moving forward.	4d = structure (noun) The way the poet has organised the poem on the page, including stanza length, line length, title and ending.	
S – Structure S	What is interesting about line length or stanza length? How does the poem begin and end?		3d = Belfast Confetti by Ciaran Carson describes a speaker watching the scene after a riot between Protestants and Catholics. This poem is	A feeling or idea that is suggested by a	
2. What, How, Why Paragraphs			about the aftermath of the "Troubles" - a period of conflict in Northern Ireland.	4f = imagery (noun) The use of language to create vivid pictures in	
WHAT is the wr	ner	Hughes presents her life at times as offering no hope. She suggests she lacked	3e = Checking Out Me History by John Agard In	the readers' minds.	
character/ theme/ setting?		guidance or faith. She describes part of her life's journey as having "no light." Hughes is perhaps using light as a symbol of	this poem, the speaker is recounting all of the historical figures he was taught in school, he then lists all of the figures from black history who were not mentioned. He decides to discover more	4g= metaphor (noun) Comparing one thing to another directly – as if one thing is another – to highlight their similarities.	
HOW are they revealing information		hope, and is therefore suggesting she could	suggesting she could about his own heritage. 4h = symbol		
and creating e	creating effects onnortunity to move beyond the difficult focuses on the toppling of the statue of Edward		A character, idea, image or setting that represents a bigger idea		
for the reader? Quotation? La		times she faced. Furthermore, the symbol	Colston – a 17 th century slaver – in Bristol in 2021.	4i = tone (noun) The attitude a writer shows towards a topic using words.	
methods? WHY have the	V	of "light" could refer to guidance and understanding, so Hughes could be encouraging her readers to acknowledge	3g = Do Not Go Gentle into that Good Night by Dylan Thomas Though the poem was dedicated to Thomas's father, it contains a universal	4j = enjambment (noun) No punctuation at the end of a line of poetry.	
chosen to do t		the feelings of loneliness and hopelessness	message. The poem encourages the dying—the sick and the elderly—to fight bravely against	4k = caesura (noun) Punctuation in the	

death.

middle of a line of poetry.

Year 9 English Knowledge Organiser Learning Cycle 2— Noughts and Crosses (Play)

1. Characters

THE MCGREGOR FAMILY



RYAN

Ryan does all that he can to protect his family. He, alongside Jude, joins the Liberation Militia. However, as a result of his loyalty to this cause, and his devotion to his family, Ryan is imprisoned.

MARGARET (MEGGIE)

Meggie is a protective woman. For fourteen years, she worked for the Hadley family as a member of household staff. However, after being sacked by the Hadley family, Meggie and her family suffer financial hardship.

LYNETTE

Lynette is Jude and Callum's older sister. Previously, she dated a Cross and as a result, she was attacked by some noughts. Consequently, due to the trauma, the attack affects Lynette mentally.

JUDE

Callum's older brother, who displays violent and aggressive tendencies. While Callum is resolved to playing the system and becoming successful within it, Jude is concerned with rebellion, becoming involved with a terrorist organisation.

CALLUM

Callum is intelligent and hard-working. During childhood, he was best friends with Sephy, sharing a close connection, and later entering into a romantic relationship. With the help of a scholarship, Callum is able to join Sephy's 'Cross' school, which leads to discrimination and bullying.

THE HADLEY FAMILY



KAMAL

Kamal strongly dislikes noughts. Kamal is a government official, and he regards Crosses as superior to noughts. His belief in the importance of segregation drives his behaviour in the novel.

JASMINE

Despite her family's power and status, Jasmine suffers throughout the book. Her husband's neglect causes Jasmine to feel lonely, insignificant and powerless.

PERSEPHONE (SEPHY)

'Sephy' is the daughter of the powerful Kamal Hadley. She is a Cross, meaning that she was born with a certain amount of privilege, which is contrasted with her childhood friend Callum. Initially, Sephy is naïve to the brutal world around her. However, she learns to sympathise with Callum's suffering.

MINERVA (MINNIE)

Minerva is the older sister of Sephy. Often, Minerva does not agree with Sephy's positive opinions of noughts. Despite frequent arguments with her sister, Sephy does sometimes confide in Minerva.

2. Context and Authorial Intent

2a = On the Stage

The play is a stage version of Malorie Blackman's dystopian novel of the same name. The Royal Shakespeare Company used the Dominic Cooke adaptation of the story and their production ran at the Civic Hall in Stratford-upon-Avon in winter 2007 and toured the UK in 2008.

2b = Malorie Blackman's Motivation

'I wanted to turn society as we know it on its head in my story, with new names for the major divisions in society. I wanted to see this new world through the eyes of the main two characters, Callum (a nought) and Sephy (a Cross). Race and racism are emotive issues that most people are loathe to discuss, but I think they should be discussed, no matter how painful.'

2c = Apartheid

From 1948-1994, the South African government enforced apartheid. This meant that black and white people were forced to live separately, go to different schools and black people could not vote. White people got privileges and ruled the country. However, this all came to an end when black people finally got the right to vote and elected Nelson Mandela as president. He had spent 27 years in prison for fighting for black people's rights.

2d = Slavery

In the USA, white landowners used black slaves to work their farms until the 1860s. Even after slavery was abolished black people often continued to work on the farms in the southern states, in bad conditions and for poor wages, or as servants or manual labourers. Even now, 150 years later, black communities in the USA are often worse off than white communities. The story of Noughts & Crosses is set at a time when people can still remember noughts being slaves.

2e = All-white schools

Up until 1954 in many areas of the USA there were separate schools for black children and white children. This was finally made illegal in 1954. Schools quickly opened their doors to black children but there was a lot of resentment. At one school in Little Rock, Arkansas, in 1957, there was a full-blown riot when black pupils tried to enter the school



Year 9 English Knowledge Organiser Learning Cycle 2 – Noughts and Crosses (Play)

The Story Noughts & Crosses tells the story of two young people: a girl called **Sephy** and a boy called **Callum**. Callum is a **nought** – he's white, from a poor family and lives on a rough estate. Sephy is a **Cross** – she's black, from a wealthy, powerful family and lives in a grand country house with a private beach. The story takes place in world very similar to our own, apart from the massive **split** between noughts and Crosses. Crosses are the **ruling class** and noughts struggle against **prejudice**, **poverty and low status**. It's almost unheard of for a Cross to be friends with a nought, but

It's almost unheard of for a Cross to be friends with a nought, but Sephy and Callum are very close and eventually become **lovers**. Even so, Callum sometimes feels Sephy doesn't understand the prejudice he faces. Sephy is frustrated that Callum doesn't realise how hard she tries to understand and that she has her own problems with her cold, snobbish family.

Callum's dad and brother get involved with a nought **terrorist organisation**. Callum initially hates the violence but after his sister dies and his dad is killed in prison, he turns terrorist too. He hardens himself to the **violence** but when he is involved in kidnapping Sephy, he realises that he should never have joined the organisation.

Despite Sephy and Callum's **love** for each other, there's no place in their society for a nought and a Cross who want to be together. The story ends with Sephy **pregnant** with Callum's child and Callum being **executed** for terrorism.



4. Vocabulary

4a = inequality (noun) a situation in which money or opportunities are not shared equally between different groups in society

4b = terrorism (noun) violent, criminal acts committed by individuals or groups designed to influence the government or intimidate the public

4c = disconcerting (adjective) causing someone to feel on edge, unsettled or anxious

4d = discrimination (noun) the unfair treatment of different groups of people, especially due to their race, gender or disability

4e = victimised (verb) singled out for cruel or unfair treatment

4f = intolerance (noun) a state in which someone is unable to accept views, beliefs or behaviour that is different from their own

4g = empathy (noun) the ability to understand and share the feelings of another

4h = unjust (adjective) not based on or behaving in a way that is morally right or fair

4i = prejudiced (adjective) having or showing a dislike or distrust that is based on unreasonable hatred towards a group or individual

4j = liberation (noun) the act of setting someone free

4k= manipulate (verb) control or influence someone often unfairly or dishonestly

4I = ambiguous (adjective) unclear; open to more than one interpretation

5. Subject Vocabulary

6a = play (noun) A dramatic piece of literature intended to be acted out on the stage.

6b = act (noun) A way of dividing a **play**. Each act is a group of **scenes**.

6c = scene (noun) A dramatic part of the story of a play, at a particular time and place and a way of dividing **acts** into smaller parts.

6d = stage direction (noun) An instruction in a play that tells actors how to move or speak, or gives information about the setting, sound effects or lighting.

6e = language (noun) Words or methods (techniques) used by writers to present their meanings or create effects.

6f = connotations (noun) A feeling or idea that is suggested by a particular word.

6g= imagery (noun) The use of language to create vivid pictures in the readers' minds.

6h = characterisation (noun) The creation or construction of a fictional character.

6i = metaphor (noun) a direct comparison of one thing to another – describing something as if it **were** the other thing, to highlight their similarities.

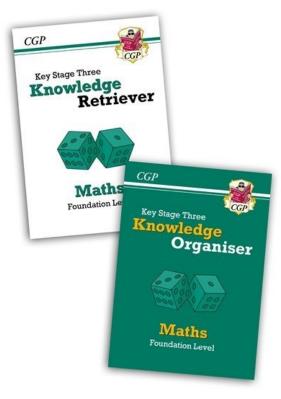
6j = declarative (noun) a sentence that makes a statement

6k = interrogative (noun) a sentence that asks a question

6l = imperative (noun) a sentence giving a command or an order

6m = exclamative (noun) a sentence conveying a strong sense of emotion, alarm or emphasis





Every student will be issued a Maths Knowledge Organiser booklet and a Knowledge Retriever booklet.

You will be given specific pages in the Knowledge Organiser to memorise each week using one of the SORT strategies.

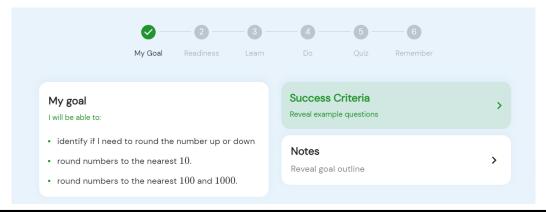
You will be asked to complete a Knowledge Retrieval quiz in the booklet to demonstrate your retention and recall of the required knowledge.

All home learning will be set on Class Charts.

2

Complete Maths Daily Goals

- 1) Complete the diagnostic
- 2) Add the selected course
- 3) Complete 5 daily goals a fortnight
- 4) Repeat steps 1 3 when completed the course





Complete Mathematics

Success on a goal is a quiz score of 100% without watching the Learn videos or 80% with.

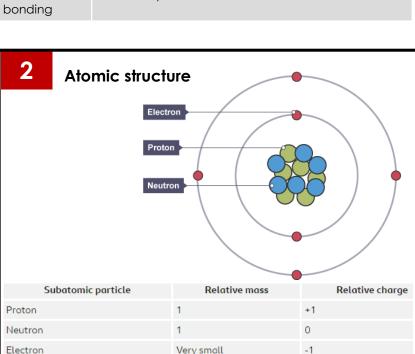
3

Preparing for an assessment

- 1) Learn the definitions of the key terms
- 2) RAG your PLC and identify the RED topics
- 3) Learn the RED topics b using BBC bitesize, other internet sites or Complete Maths Tutor

Year 9 Science Knowledge Organiser Learning Cycle 2 – Atomic structure and bonding

1 Key words	Definition
Atom	The smallest part of an element which can exist. Atoms have a nucleus, containing protons and neutrons, with electrons orbiting in shells
Element	A substance made of only one type of atom
Compound	A substance made of more than one element, chemically bonded together
lonic bonding	The electrostatic attraction between two oppositely charged ions
Covalent bonding	A shared pair of electrons between two non-metals

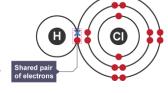


Electronic structure Electrons orbit the nucleus at different energy levels called shells. The first shell can hold 2 electrons, the second and third can only hold up to 8 electrons Atomic number Name Electronic configuration Diagram of atom

Acomio mambo.	11441110	configuration	Diagram or atom
3	Lithium	2.1	
11	Sodium	2.8.1	
19	Potassium	2.8.8.1	

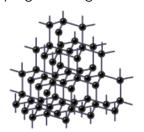
5 Covalent bonding

Simple molecules, such as water (H₂O) and hydrogen chloride (HCl) have low melting and boiling points because they have weak intermolecular forces between molecules

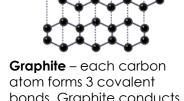


Hydrogen chloride, HCI

Giant covalent structures, such as diamond and graphite have very high melting and boiling points

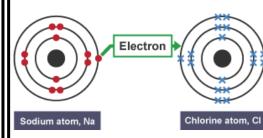


Diamond – each carbon atom forms 4 covalent bonds with another carbon atom.



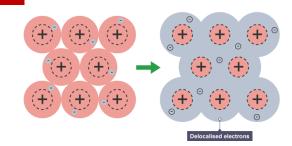
atom forms 3 covalent bonds. Graphite conducts electricity because there are delocalised electrons between layers.





Giant ionic lattices, such as sodium chloride (NaCl) have high melting and boiling points because of strong electrostatic attractions between ions. They only conduct electricity when molten or dissolved.

Metallic bonding



Metallic structures are good conductors of heat and electricity because they have delocalised electrons. They are malleable because layers of positively charged metal ions can slide.

All information resourced from BBC Bitesize

Year 9 Science Knowledge Organiser Learning Cycle 2 – Atomic structure and bonding

7 Key words	Definition
Fractional distillation	Using heat to separate a mixture of substances as the substances have different boiling points
Ore	A compound that contains enough of a metal to make it economically viable to extract the metal from it
Displacement	When a more reactive substance reacts and swaps places with a less reactive substance.
Electrolysis	Using electricity to decompose a compound

Potassium Sodium Lithium Calcium Magnesium Aluminium Zinc Iron Copper Silver Gold

Reactivity Series

The reactivity series is like a league table of metals sorted into order of reactivity. The most reactive metal is at the top and the least reactive metal is at the bottom

A more reactive metal can **displace** (swap places with) a less reactive metal.

magnesium + copper sulfate → copper + magnesium sulfate

potassium + calcium nitrate → calcium + potassium nitrate

Environmental impacts of mining

-) Digging ores out of the ground is noisy, can cause dust and air pollution and leaves unsightly waste/holes in the ground.
- Both smelting and electrolysis require lots of energy. This makes the process expensive and can also cause carbon dioxide to be released into the atmosphere. This causes global warming.
- 3) Recycling of metals is a more sustainable option because less ores have to be extracted and less energy is needed to recycle metals than extract new ones.

12 Further links

Atomic Structure

https://www.bbc.co.uk/bitesize/guides/z3sg2nb/revision/3

Bonding

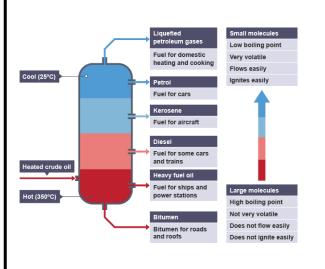
https://www.bbc.co.uk/bitesize/topics/zq6h2nb

Reactivity Series

https://www.bbc.co.uk/bitesize/guides/ zsm7v9q/revision/1

Fractional distillation

Fractional distillation separates substances in a mixture based on their boiling point. We can use it to separate the compounds in crude oil.



Extracting metals Metal Method Reactivity Potassium Most reactive Sodium Lithium Electrolysis of molten compounds Calcium Magnesium Aluminium (Carbon) Zinc Iron Heating with carbon Copper Gold Various chemical reactions Least reactive

Less reactive metals can be extracted from their ores using displacement. They are roasted with carbon in a process called **smelting** More reactive metals need to be extracted by **electrolysis.**

Electrolysis uses electricity to break the compound down into ions that then separate.

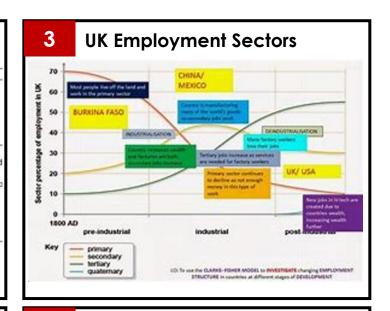
Year 9 Geography Knowledge Organiser Learning Cycle 2

1 Key Terms

Key terms	Definitions
Globalisation	A process of deeper economic integration and interdependence between countries.
Foreign Direct Investment (FDI)	Inflows of capital (money) from foreign TNCs.
Division of Labour	Breaking down production into smaller individual tasks.
Capital markets	Markets for bonds (debt) and equities (shares).
Import Tariffs	Ad valorem (proportional value) taxes on the value of imported products.

2 Economy

Pre-industrial era	Industrial era	Post-industrial era
Primary employment (agriculture) dominant Tertiary is least significant Primary declines as secondary and tertiary increases	Manufacturing peaks when tertiary and primary cross Primary declines to least significant industry Tertiary increases All sectors significant	Tertiary is highest Secondary and primary decrease with primary least significant Quaternary emerges and increasing
Agriculture is dominant as many people work in subsistence farming due to lack of infrastructure and technology Agriculture vital for food supply Economy works on a local scale	Technology and infrastructure is improving leading (factory system) to an industrial revolution Mechanisation in rural areas and migration to urban area for jobs	Tertiary is highest due to increasing wealth and dema for skills Manufacturing declined due outsourcing of jobs to countries like China and foreign imports Quaternary emerges due to increased wealth



4 TNCs

Advantages	Disadvantages
 Brings work to the country and uses local labour. Improves education levels and technical skills of locals. Inward investment and FDI to the country. Improvements in transport and services (infrastructure). Increased demand leads to growth of new industries. Widens economic base. 	 Local labour force usually poorly paid and work long hours. Very few local skilled workers employed. Profits mostly go abroad. Big schemes increase national debt. Insufficient attention to health and safety factors and environment protection.

Chinese investment

Why China invests in Nigeria

- · Economic Growth in China 9% per annum
- No longer able to supply the consumption requirements
- Gaining economical and political power in the world
- China's 2003 National Energy Strategy and Policy remarked: "oil is the key factor in the creation of public wealth, and also one kind of most important commodity influencing the global political pattern, economic order and military operations"

Journey of the Dollar

Indicator	Brazil	Russia	India	China
Population (2009)	194 mil.	142 mil.	1.15 bil.	1.33 bil.
GDP (US\$, 2009)	1,573 bil.	1,232 bil.	1,310 bil.	4,985 bil
GDP per Capita (PPP, Current Intl. \$, 2009)	\$10,499	\$14,913	\$3,015	\$6,778
GDP Avg. Growth Rate (1990 - 2009)	2.5%	0.3%	6.3%	10.1%
GDP Projected Avg. Growth Rate (2011-14, as of April, 2011)	4.2%	4.5%	8.1%	9.5%
Merchandise Exports (US\$, 2009)	153 bil.	303 bil.	162 bil.	1,201 bil
HDI % Change (1990 - 2010, for Brazil only 2000 - 2010)	7.6%	3.8%	33.3%	44.2%

Year 9 History Knowledge Organiser Learning Cycle 2

Treaty of Versailles

- End of WW1 allies impose a harsh peace treaty on Germany.
- -Germany must pay for war damages (reparations)
- -Take the blame for causing the war.
- -Give up parts of their country to other nations
- -Army limited to only 100,000 men.
- -Navy could only have six battleships and no submarines.
- -League of Nations set up to keep the peace (first try at creating the U.N)

Germany in the 1920s

- -Germany very unstable, economy in ruins, millions unemployed.
- -A small party led by Adolf Hitler starts to become popular.
- -They blame foreigners, communists, Jews and other groups for Germany's problems & promise to fix things.

Germany in the 1930s

- -Nazi party now in charge.
- -Want to tear up the Treaty of Versailles so rearm and rebuild the military.
- -Plan to build a new German empire, but need space to do this (lebensraum) from other countries. -Wanted to unify all German people into one country

4 Jewish Persecution

-The 1935 Nuremburg laws removing their German citizenship & banning marriages & relationships with Jews.

Also restricted where they could go. Jews not allowed outside after 6:00pm.

- -Jews no longer allowed to work certain jobs e.g. doctor/teacher/lawyer.
- -Nazis convince people to boycott Jewish shops in Germany.
- -Kristallnacht, huge Nazi protests against Jews turn violent, over 100 Jews killed in 1938.

5 Imprisonment

- -Increasing number of Jews sent to prison camps called concentration camps. Conditions in the camps are terrible, many die.
- -As the Nazis conquer new land they begin to form prisons inside captured cities such as Warsaw.
- -Huge areas of a city or bricked off and turned into a prison that Jews from across occupied territory can be sent to.

6 Extermination

- -Many death & slave labour camps were set up, Auschwitz was the most notorious because over 1.1 million Jews were killed here.
- -Historian Christian Browning estimated "In March 1942 –80% of all those killed in the Holocaust were still alive, just 11 months later, February 1943 80% of them were already dead. (over 4 million)

Year 9 Spanish Knowledge Organiser Learning Cycle 2

1 Know your phonics!

Revisit these rules and then apply them to all new vocabulary that we cover this term. Remember the rules never change!

Pronouncing words in Spanish:

https://www.bbc.co.uk/bitesize/topics/zhy27nb/articles/zk78382

Conversational Spanish

Can you answer these questions? Use your KO and Parallel text for support:

¿Qué haces en un día típico? ¿Qué harías en un mundo ideal? ¿Puedes describir a tu familia? ¿Cómo te llevas con tu familia? ¿Cómo eras de joven? ¿Tienes una vida sana?

2 Know your tenses!

The links below take you to the BBC bitesize GCSE pages. We haven't learnt all of the vocab covered here yet but focus on the rules for how the tenses are all formed and make notes on that.

How to use the present tense:

https://www.bbc.co.uk/bitesize/guides/z4s2bdm/revision/1

How to use the conditional:

https://www.bbc.co.uk/bitesize/guides/zjkgjhv/revision/2

How to use the imperfect:

https://www.bbc.co.uk/bitesize/guides/zjrn8xs/revision/

5 High frequency vocab

These verbs appears in the top 2000 Spanish words- check that you know what it all means

ser = to be tener = to have llamarse = to be called ver = to see/ watch ir = to go

ver = to see/ watch ir = to go despertarse = to wake up levantarse = to get up vestirse = to get dressed arreglarse = to get ready

escuchar = to listen apoyar = to support ayudar = to help hablar = to speak vivir = to live

3 Vocab learning techniques

Regularly practice your topic specific vocabulary using the techniques listed below:

- Log into your Memrise Group and practise online
- Look-cover-write-check This video demonstrates what to do: https://youtu.be/eKoOoW8PBc0
 - Use the Parallel text

This video demonstrates what to do: https://youtu.be/WcvVeNM6dWc
Make Flashcards and self-test:

https://voutu.be/-SL9037YMKA







6 Further reading, websites

Get ahead-Socialising, interests and role models in Spanish:

https://www.bbc.co.uk/bitesize/guides/zfhnkmn/revision/1

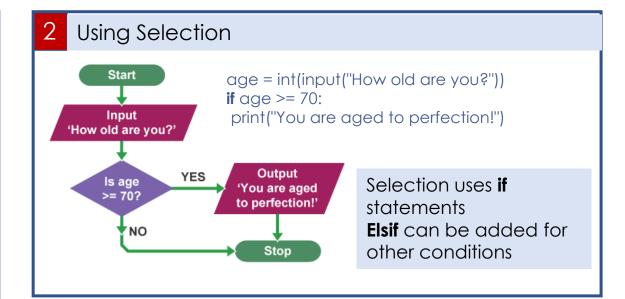




Year 9 Computer Science Knowledge Organiser Learning Cycle 2: Topic 1: Python Programming

1 Python Code

Key Words	Definition
Bug	An error in a program
Comments	Adding one or more sentences to explain the purpose of a section of code, use # at start of comment.
Python	A high-level coding language
IDLE	Integrated Development and Learning Environment
Iteration	A part of the code that repeats
Logic Error	A fault in the logic or structure of the problem which means it doesn't produce the output expected.
Syntax Error	An error in a programming language caused by not using the correct syntax. These are normally spelling errors or small grammatical mistakes.
Sequence	a set of instructions that follow on one from another.
Variable	A memory location within a computer program where values are stored. The value can be changed during the program.



3 Using Iteration

While Loops

condition-controlled

total = 0 answer = "yes" while answer == "yes": number = int(input("Type in a number: ")) total = total + number answer = input("Any more numbers? yes/no ") print("The total is: ") print(total)

For Loops

count-controlled

```
total = 0
for count in range(5):
    number = int(input("Type in a number: "))
    total = total + number
print("The total is: ")
print(total)
```

Year 9 Computer Science Knowledge Organiser Learning Cycle 2: Topic 2: Networks

Python Lists

Lists are used to store multiple items in a single variable

```
thislist = ["House", "Cottage", "Flat"]
print(thislist)
```

Values in a list are numbered from 0. This code will output "Flat"

```
thislist = ["House", "Cottage", "Flat"]
print(thislist[2])
```

List items are ordered, changeable, and allow duplicate values

Python Strings

A **string** is sequence of characters often stored as a variable in a computer program. These characters can include numbers, letters and symbols.

Display the string using the print() function:

Display the length of the string by adding the len() function:

greeting = "Hello" print(greeting)

greeting = "Hello" print(len(greeting))

Networks

Bluetooth'

Key Words	Definitions
Network	A group of connected computers or devices
Internet	A global network of computers. All computer devices (including PCs, laptops, games consoles and smartphones) that are connected to the internet form part of this network.
Websites	Websites consist of webpages which allow you to see information. Websites are accessed using a web browser.
World Wide Web (WWW)	The part of the internet that can be accessed through websites.

WAN – Wide Area Network (e.g., the internet)

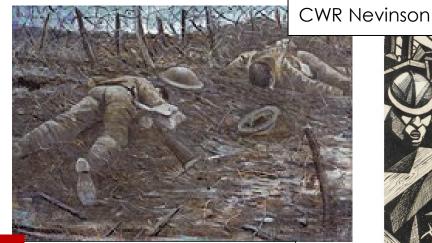
LAN – Local Area Network (e.g., The school)

PAN – Personal area Network (e.g.

BBC Bitesize

Year 9 Art Knowledge Organiser Learning Cycle 1 - SPEAKING TRUTH TO POWER

Definitions. **Key Terms** An area of northern France and Belgium with the most **Western Front** fighting during the First Worlds War. Nickname given to the British Tommy Soldiers. **Artillery** Heavy Guns The activities and lives of the **Home Front** people left at home. The land nearest the enemy **Front Line** where the fighting takes place. Soldiers dia down into the earth from between a few Trench centimetres and 6' to provide protection from the enemy artillery. When a shell (bomb) falls onto **Shell Hole** the earth it causes an explosion which throws earth into the air. Factories where ammunition. Munitions guns, shells, tanks and bombs were made by women.



2 What do I need to know?

Art can be a form of therapy, promoting us to reflect on the meaning of life. What happens when we stand in front of a work of art? How might it affect us? What can we learn about ourselves by contemplating it? Art has sometimes been used by political way to speak truth to power.



What will I learn?

You will learn to look, understand and empathise with the soldiers, parents, children, brothers, sisters, women and workers on both sides of the war. You will research, think and develop an outcome that explores the impact of the Great war.

Useful Websites.

https://www.iwm.org.uk/visits/iwm-l https://www.tate.org.uk/art/artists/ch ristopher-richard-wynne-nevinson-1697





www.tate.org.uk/art/artists/christopher-richard-wynnenevinson-1697









ttps://www.tate.org.uk/art/artists/paul-nash-1690 ttps://www.tate.org.uk/whats-on/tate-

pritain/exhibition/aftermath/nine-ways-artists-responded-

first-world-war



Year 9 Design Technology Knowledge Organiser Learning Cycle 2

Tools and equipment

Coping saw- used for cutting materials into precise shapes, because it has a thin blade it can cut curves.

Tenon Saw- Used for cutting a straight deep surface or timber strips to length.

Try Square- Used for marking out 90 degrees for cutting shoulders or as a datum line.

Scroll saw- (Hegner) Can be used to cut curves and detailed components. Can be very accurate. Needs to be used with goggles.

Bench hook- used to hold the workpiece so that you can push against it. Hooks over edge of bench.

Disc sander, used to bring material to size and to flatten rough end grain.

Milling machine- used for cutting slots and pockets out of materials. The machine cuts using the X ,Y and Z axis

3

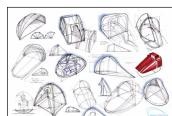
Design Process- Generate design Ideas

A really exciting stage of the design process is when you create the first ideas for your product.

You need to come up with a <u>wide range</u> of different versions of your design solution.... These should try out different solutions, materials. mechanisms. colours.

Make sure you **show the intended user your design ideas** so that they can help you select the most effective ones.





Design Process- Investigating target market

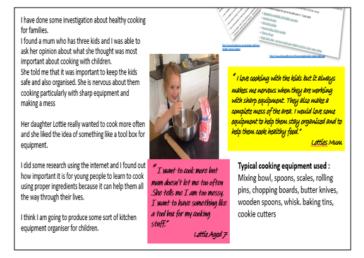
When we design products it is incredibly important to meet the needs of the user/ customer.

One way of starting is to collect examples of products that they already use and would want to own. It can also be useful to investigate brands and campaigns that they think are important. How often do you cook with your children? Weekly
Do you think healthy eating is important?
Ves
No
Not sure
Do your children enjoy cooking?
Are you worried about cooking with kids?
Are your children able to work safely?
Are your children able to work safely?
Are your kids able to work independently?
Are your children organised cooks?
Are your children organised cooks?
Is your cooking space child friendly
Yes
No
Ometimes
No

It is important to have <u>an actual person</u> to talk to so that they can help you review the design proposals.

Asking them a <u>focused questions</u> is an important task.





Year 9 Design Technology Knowledge Organiser Learning Cycle 2

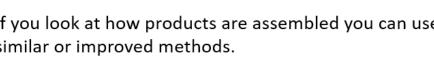
Design Process- Analyse existing products

It is always a good idea to look at products and systems that are already in existence.

It gives you a chance to see what works well and how the product has been put assembled or manufactured.

It can also be useful to be look at smaller parts of products or systems. For example parts for a circuit or mechanisms that perform specific tasks.

If you look at how products are assembled you can use similar or improved methods.









Design Process- physical modelmaking

They are better than drawings sometimes because you get a chance to really explore the design in 3D- to see or find out:

- · How parts fit together,
- How mechanisms work
- · If the products are comfortable
- · Sizes of parts that might be hard to work out in your head.

Models are made according to the function they need to

- Sketch models made of card- these are often used for layout
- Handling models to test ergonomics and fit .
- Mechanism models to test how components will fit and function together. (mechanical advantage)
- Appearance models to see how the finished product might look (not always functioning).
- Packaging models might be made from card and board









The 6 Rs

The 6 Rs of sustainability is a tool widely used to help designers reduce the impact of their products on the environment can be used as a checklist for each product that is designed.

Reduce — How can the amount of materials and components used in the product be reduced?

Rethink — How can the design of the product be changed so that it is less harmful to the environment?

Refuse — Should the product be produced if it is not sustainably designed?

Recycle — Is the product made using recycled materials?

Reuse — Could the product be used in a different way once its current use has

Repair — Is the product easy to repair?

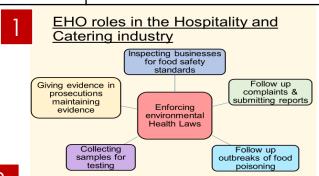
Key words and definitions

Dimension: The size and measurements of objects

Marking out: The methods of adding lines and profiles to show where cutting and shaping needs to happen.

Sustainability: How to create materials and energy in a way that has minimal impact on the environment.

Key Terms	Definition
Environment al Health Officer (EHO)	Person responsible for ensuring legislation is implemented including Food Safety Act 1990
Legislation	a law or a set of laws that have been passed by Parliament.





5 Influences on consumer choice

- Cost
- Availability
- Seasonality
- Preferences likes/dislikes

Allergies and intolerances

Some people may develop an allergy or intolerance to food.

An allergy requires medical intervention and can be life threatening. Symptoms can occur anywhere from a few minutes after exposure to a few hours later, and they may include some of the following:

Swelling of the tongue, mouth or face, Difficulty breathing, Low blood pressure, Vomiting, Diarrhea, Hives, Itchy rash.

An intolerance refers to irritation to the digestive system leading to constipation, bloated, diarrhea.

The 8 most common food allergies include:

Cow's milk, Eggs, Tree Nuts, Peanuts, Shellfish, Wheat, Soy and Fish.

Coeliac Disease

This is intolerance to gluten which is found in wheat, rye and barley.

Lactose Intolerance

Can't digest lactose (because they don't produce the lactase enzyme).

Useful Website: https://www.foodafactoflife.
ora.uk/

https://www.bbc.co.uk/bitesize/guides/z8rgw6f/revision/4



Medical and health reasons:

High blood pressure, diabetes type 2, coronary heart disease, depression, obesity, mobility issues

Ethical Diets

Some people avoid meat due to environmental issues or health risks. Some people avoid beef due to concerns over BSE. Some avoid chicken and turkey due to the bird flu issues. Some people avoid fish due to the overfishing. Or prawns because this fishing is very energy expensive and wasteful. Producing unnecessary greenhouse gases. Some people just don't like the thought of harming animals..

Types of Vegetarian:

Vegetarians: Do not eat meat or fish.

Lacto-vegetarians: Do not eat the flesh of any animal but they will eat eggs, milk, cheese, honey etc.

Vegans: Do not eat any animal products (including honey). **Pescatarians:** Do not eat chicken or red meat but do eat fish.

Religious Diets







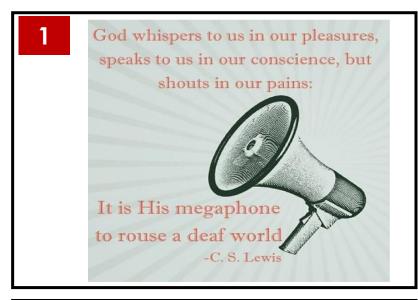
Muslim Diet: Do not eat pork . Only eat Halal meat (which is killed in the same way as Kosher). Muslims also avoid alcohol.

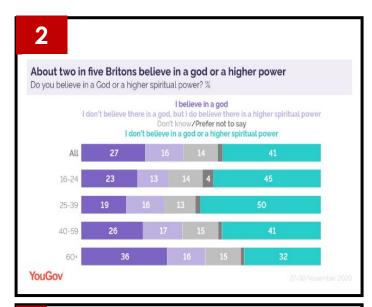
Jewish Diet (Judaism): Do not eat shellfish or pork. They do not eat dairy and meat in the same meal (this is because they do not eat mother and child together – so you cannot have chicken and egg together or milk and beef). They only eat Kosher meats (where the blood is drained from the body through a slit in the throat before the meat is soaked or salted). Kosher houses should have different sinks for dairy and meat along with different plates, cutlery and utensils: this is taken very seriously within the Jewish religion.

Hindu Diet (Hinduism): Do not eat beef or any beef product – this is because the cow is a sacred animal and is treated as such, this includes the use of leather for clothes and furniture. Milk is permitted as no animal is killed during the collection. Often vegetarian, which comes from the principle of Ahimsa (not harming). Most Hindus don't drink alcohol.

2,4,6	Dish	Skills
Roasted vegetable stack		Knife skills- bridge hold and claw grip
Mini Quiche		Rubbing-in-method, adaptation, setting egg filling
Apple tart		Rough-Puff pastry, knife skills, glaze 26

Year 9 RE Knowledge Organiser Learning Cycle 2





3	
Key Word	Meaning
Atheist	A person who does not believe in the existence of a god or any gods
Agnostic	Someone who doesn't know whether there is a god, or even if such a thing is knowable
Humanist	The belief that people can achieve happiness and live well without religion
Spiritual but not religious	Reject organised religion but maintain a belief in something larger than themselves
Worship	To show honor or respect

4 Atheism

What proof do atheists give for the lack of a God or gods?

Atheists do not feel that they have to provide proof for the lack of something's existence; they would argue instead that the theists should have to prove that there is a god.

For atheists, there needs to be a reason to believe in a God or gods, and many atheists find the religious arguments unconvincing. This does not mean anyone should be rude towards people of faith.

<u>Humanism</u>

Humanists do not believe in a God. They believe it is possible to live a good and fulfilling life without following a traditional religion.

They do not follow a holy book either. Instead, Humanists value traits like reason and rely on science to explain the way things are.

Humanists believe that people have one life to live - there is no afterlife. As a result they focus on being happy and making the most of their life. They also believe they have a duty to support others.

6 Further reading, websites

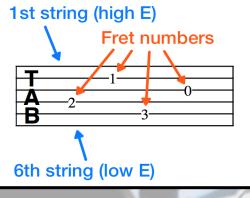
https://www.bbc.co.uk/teach/class-clips-video/religious-studies-ks3-a-is-for-atheism/zdkcwty

https://www.bbc.co.uk/bitesize/topics/zkyn2sg/articles/zfs2kmn

TIER THREE VOCABULARY The musical language guitarists and bassists Tablature (Tab) can use to read music. The spaces separated by thin pieces of Fret metal that help separate the notes and pitches on a guitar/bass guitar/ukulele etc. The category or style of music that the sona Genre or piece of music belongs to due to it sharing characteristics with other pieces of music. - Eddie, Ate, Dynamite, Good, Bye, Eddie -E-A-D-G-B-E The acronym to help remember the order of Eddie, Ate, Dynamite, Good, Bye, Eddie the strings on a guitar. A group of musicians playing a piece of **Ensemble** music together. When two or more notes are played at the Chords same time to create a harmony. When a combination of sounds are played Harmony at the same time in order to create a pleasina sound.

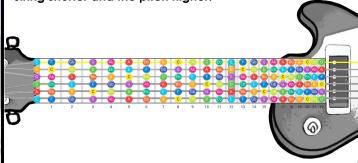
READING TABULATURE

Tablature (or tab) is the method lots guitarists and bass guitarists use to know what notes to play. The diagram is a visual representation of the guitar's neck, strings and fretboard. The bottom line represents the lower thicker E string, and the numbers represent what number fret you put your finger.



THE FRETBOARD

Each string is made up of a note (E-A-D-G-B-E) and we use the acronym (Eddie, Ate, Dynamite, Good, Bye, Eddie) to help remember the order of the strings. When you make the string shorter by putting your finger on the frets you create a higher note. So, for example, the note above E is an F, so by putting your finger on the E string in the 1st fret you make an F sound as you've made the string shorter and the pitch higher.





WHAT IS A MUSICAL 'GENRE'?

There are many different types of musical genres (which is pronounced 'jahn-ruh') each with their own unique characteristics, instrument choices, and sounds.

All music tends to fall into one, two or sometimes even three different genres and these are categorised by things that make them like other styles of music. For example, Green Day and Foo Fighters both fall into the genre 'Rock' because Rock music uses heavy guitars, has a strong beat and similar structures to each other.

Take a look at the article below to learn more!

is.ad/whatisaenre

6 LINKS & FURTHER READING

Article:

What Is A Music Genre?



is.gd/genrearticle

Lesson:

School of Rock – Piano Chords is.gd/pianochords



Revise:

Mind Map Maker is.gd/mindmapcreator



Year 9 Drama Knowledge Organiser Learning Cycle 2 Blood Brothers by Willy Russell

1

	Features of form			
1.	A didactic play	A drama which intends to teach, especially with regard to morals.		
2.	Tragedy	An event causing great suffering, destruction and distress.		
3.	Parallels and contrasts	Parallels – similarities. Contrasts – differences.		
4.	Narrator	A person who gives the spoken account of something. Omniscient to remind the audience about the ending of the play.		
5.	Stage directions	An instruction in the text of the play indicating the movement, the position or tone of an actor, or the sound effects and lighting.		
6.	Song	A single work of music that is typically intended to be sung by the human voice. It is through the songs that the characters reveal their true thoughts and feelings.		
7.	Dialogue	A conversation between two or more people.		
8.	Montage	A series of short sequences are edited into a sequence to condense space.		
9.	Foreshadowing	A warning or indication of a future event.		
10.	Symbols and motifs	A thing that represents or stands for something else. A motif is a dominant or recurring image of idea.		
11.	Accent and dialect versus Standard English	Standard English is any form of the English Language that is accepted as a national norm. Accent is a distinctive way of pronouncing a language. Dialect is a particular form of language which is peculiar to a specific range or social group.		

Set between 1960 – 1980s

In Liverpool, England

2

Key Themes

Childhood Adolescence
Superstition
Violence
Nature Vs Nurture
Social Class

	Context
Willy Russell	Born into a working class family.
	He grew up near Liverpool.
	Father had various jobs including mining and factory work.
	 Annoyed at treatment of intelligent working class and associated stereotypes.
	Left school at 15 with just one O'level: a D in English Language. Went to evening classes and university to become a teacher.
Liverpool	A major port and the centre for trade providing lots of jobs at the docks.
	 During the Industrial decline, Liverpool became very vulnerable as the docks were shut and unemployment rates soared.
	8. Some men turned to crime and gangs in order to support themselves and their families. There were also riots in 1980
Margaret	Prime Minister in 1979.
Thatcher	 Reduced the power of the trade unions and closed down many factories etc leading to widespread unemployment.
Skelmersdale	11. In the 1960s the government began building New Towns. These were small, existing towns which were extended and
	redeveloped to provide more housing for nearby cities.
	 Working class families were rehoused here in the 1960s.
Class	13. Working class vs Middle class divide
	 More opportunities for middle classes reflected in education, job prospects and wealth.
Education	 The Education Act of 1944 led to 'secondary modern schools' and 'grammar schools.'
	16. Top 20% went to a grammar school with an academic curriculum. Secondary modern taught more practical subjects.
	17. 7% of students were educated in private, fee-paying schools. The average boarding school fees in the 1960s would

have been approximately 25%







		Characters
1.	Mrs Johnstone	Naïve, loving and maternal, caring, rash, strong, generous, good, selfless, uneducated, superstitious, lively, zesty, trapped, victim, helplessness,
2.	Mrs Lyons	Lonely, cold, wealthy, dependent, inconsiderate, pampered, self-centred, manipulative, over- protective, anxious, unreasonable, mad
3.	Mickey	Friendly, excitable, adventurous, sneaky, cast-off, wants to impress, shy, determined, bright, witty, hard-working, ambitious, trapped, victim
4.	Edward	Friendly, generous, naïve, restricted, impulsive, lacks compassion, condescending, sneaky
5.	Sammy	Aggressive, threatening, sarcastic, anti-social, criminal, hostile
6.	Linda	Kind, compassionate, feisty, humorous, strong- willed, supportive, protective, poor, untrustworthy,

5

Further Reading

An interview with Willy Russell

https://www.onmagazine.co.uk/arts/artsinterviews/willy-russell-bloodbrothers/



https://www.youtube.com/watch
?v=RF9V5zeUf5U



