

## Year 8 Learning Cycle 2

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

## Contents

Home Learning timetable - when I am going to complete my home learning	3
Year 8 Learning Cycle 2 Summative Assessment Timetable	4
How to Use your Learning Cycle Knowledge Organiser	
What are the SORT strategies?	6
How to use SORT	7
Revision Planner	10
Year 8 Learning Cycle 2 Personal Learning Checklists	11
English - War poetry	
English - Journey's End	19
Maths - Key Words	
Maths - Real life graphs	
Maths - Ratio	23
Maths - Lines and Angles	
Maths - Sparx Maths	26
Science - How can I use the Periodic Table?	
Science - Experiments	28
Science - Science in action (Electricity and Circuits)	
Science - Clubs and Reading	33
Art - Natural Forms 3D	
Computing - Representing Data	35
Computing – Using Binary	36
Design Technology - Clocks	37
Drama - Theatre Through Time	38
Food - Knead to Know	39
Geography - Extreme Weather	40
Geography - Deserts	
History - What were peoples' experiences of the British?	43
History - How far have we achieved mutual respect and tolerance?	
History - Reasons for the slave trade and why it abolished	45
Music - Variations	46
Religious Education - What is so radical about Jesus?	
Spanish	48
Notes Pages	49

## 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	Sparx Maths XP	Reading	Sparx Maths XP	Reading
Subject 1	Geography	History	Science	Maths	Spanish
Subject 2	RE	Art	Art Food English Co		Computing
	Mon B	Tue B	Wed B	Thu B	Fri B
Core Activity	Sparx Maths XP	Reading	Sparx Maths XP	Reading	Sparx Maths XP
Subject 1	Geography	Maths	Science	Spanish	English
Subject 2	Music	History	Drama	DT	

## Expected time home learning will take:

## My Computer passwords:

Activity	Time	Platform	Username	Password
Reading	30 mins each session	School System		
Sparx Maths	1 hour a week	Sparx Maths		
All other activities	15 mins each	Educake		
Sparx XP	30 mins each session	Memrise		

## Year 8 Learning Cycle 2 Summative Assessment Timetable

		26/02	27/02	28/02	29/02	01/03	04/03	05/03	06/03	07/03	08/03
Les	son			В					А		
		Mon	Тие	Wed	Thu	Fri	Mon	Тие	Wed	Thu	Fri
	8X1						Computing	Art	English		
	8X2						Art	DT	English		
	8X3						DT		English		
1	8X4						Food		English		
	8Y1						Drama				Music
	8Y2				Art		Music	Food			
	8Y3									DT	RE
	8X1					DT				Maths	
	8X2	Music								Maths	Drama
	8X3					Drama			Computing	Maths	Food
2	8X4					Music				Maths	Art
	8Y1	DT	Food					English		Maths	
	8Y2							English	RE	Maths	
	8Y3	Drama						English		Maths	
	8X1										
	8X2					Food					
	8X3									Music	
3	8X4					DT					
	8Y1										
	8Y2										Computing
	8Y3										
	8X1		Drama		Food						Music
	8X2										
	8X3							Art			
4	8X4	Drama							RE		
	8Y1				Art					Computing	
	8Y2			Drama	DT						
	8Y3			Music				Food		Art	

## Year 8 Learning Cycle 2 Summative Assessment Timetable

		11/03	12/03	13/03	14/03	15/03	18/03	19/03	20/03	21/03	22/03
Les	son			В			А				
. <u></u>		Mon	Tues	Wed	Thu	Fri	Mon	Тие	Wed	Thu	Fri
	8X1							Art			
	8X2						Art	DT			
	8X3			RE			DT				
1	8X4			Computing			Food				
	8Y1						Drama				Music
	8Y2				Art		Music	Food			
	8Y3									DT	
	8X1	Geography				DT					
	8X2	Music	History			MFL					Drama
	8X3		Geography			Drama					Food
2	8X4			MFL		Music					Art
	8Y1	DT	Food		History	Geography					
	8Y2		History								
	8Y3	Drama				MFL					
	8X1			RE		MFL					
	8X2			Computing		Food					
	8X3		History							Music	
3	8X4					DT					
	8Y1			MFL							
	8Y2			Geography							
	8Y3		History								
	8X1	Science	Drama		Food	History					Music
	8X2	Science	Geography			RE					
	8X3	Science				MFL		Art			
4	8X4	Drama	Science	History		Geography					
	8Y1	Science			Art	RE					
	8Y2	Science		Drama	DT	MFL					
	8Y3	Science		Music	Geography	Computing		Food		Art	

### How to Use your Learning Cycle Knowledge Organiser

Poltair School believe that the Learning Cycle Knowledge Organiser should be used daily for classwork and home learning. The Learning Cycle Knowledge Organiser will inform students and parents of topics that are being covered in class during each learning cycle, enabling all students to extend their learning outside of the classroom.

Students should be using their Learning Cycle Knowledge Organiser as a revision guide for assessments and using their SORT strategies to revise for each subject prior to assessments.



### What are the SORT strategies?

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			
<ul> <li>Cornell Notes</li> <li>Flash cards</li> <li>Mind mapping</li> <li>Revision clocks</li> <li>Dual coding</li> </ul>	<ul> <li>How to use your PLC</li> <li>How to schedule your home learning and stick to it!</li> </ul>	<ul> <li>Look cover &amp; test</li> <li>Leitner system</li> <li>Blurt it</li> <li>Transform it</li> </ul>	<ul> <li>Low stakes</li> <li>Self-quizzing</li> <li>Quiz each other</li> <li>Online quizzes</li> <li>High stakes</li> <li>Exam style questions</li> </ul>

## How to use SORT

Step 1: Organise	Step 2: Summarise	Step 3: Recall	Step 4: Test
<ul> <li>a. Use the daily planner on page 10 to identify all the times when you will complete your home learning and when you will complete independent revision</li> <li>b. RAG each of the PLCs so you identify your RED topics – the ones that you are unsure of or you do not fully understand</li> <li>c. Write your RED topics into your daily planner for when you will revise that subject</li> </ul>	<ul> <li>When you revise for a specific topic use your knowledge organiser, revision guide, website etc to summarise the key knowledge you need to learn.</li> <li>Use any summarizing strategy, such as: <ul> <li>Flashcards</li> <li>Mindmaps</li> <li>Cornell Notes</li> <li>Revision Clocks</li> </ul> </li> <li>For more details go to the SORT webpage: <ul> <li>https://www.poltairschool. co.uk/sort</li> </ul> </li> </ul>	Once you have summarized the knowledge, you need to actively memorise it. This is the most important part of the revision process! You could use any of the following strategies to help: • Lietner System • Blurt It • Look, say, cover, write, test	The last step in revision is to be confident that you can recall and retrieve the knowledge. To do this you need to test yourself. Quick and simple ways are to ask someone else to quiz you on the knowledge or to complete an online quiz. You can also answer past exam questions. If you can not confidently recall the knowledge you will need to repeat step 3.







### Attendance Reflection Sheet

What is your current attendance?	1.
How many sessions have you missed of school?	
How many 'l' coded sessions have you had?	2
How many 'M' coded sessions have you had?	2.
How many 'L' coded sessions have you had?	z
How many 'U' coded sessions have you had?	5.
How many 'O' coded sessions have you had?	W
How many days does this equate to so far this year?	W
If this attendance continued, how many days off would you have this year?	W

## To improve my attendance, I commit to the following:

1.	
2.	
3.	
What attendance do you want to end this term with?	
What is your end of year attendance target?	
What is our minimum expected attendance to be rewarded?	

### Possible strategies to REACH MY attendance Goals

- I will make attending school every day a priority.
- I will keep track of my attendance and absences.
- I will set my alarm clock for \_\_\_\_\_a.m.
- I will attend school everyday unless I am truly sick.
- I will find a relative, friend or neighbour who can take me to school if I miss the bus.

- If I am absent, I will contact my teachers to find out what I missed.
- I will set up medical and dental appointments for weekdays after school. If I must make a medical appointment during the school day, I will try to attend school for most of the day.
- When I am struggling with a challenge that is keeping me from school I will confide in an adult at school and seek help.

## **Revision Planner**

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Time	Saturday	Sunday
8.30am - 4pm						8.30am - 4pm		
4pm - 5pm						4pm - 5pm		
5pm - 6pm						5pm - 6pm		
6pm - 7pm						6pm - 7pm		
7pm - 8pm						7pm - 8pm		
8pm - 9pm						8pm - 9pm		

## English

### Key Ideas S R 0 What is context and why is it important when reading war literature (poems, novels, plays)? Can I identify and discuss poets' ideas and feelings about war? What methods used by poets can I identify and analyse? Can I write a thoughtful what, how, why paragraph using a key quotation from a poem? Can I write a thesis introduction to an extended analysis of a poem? How can I compare writer's ideas and methods? Am I able to recall the key characters and plot of Journey's End? Can I identify the features of a play? How do I create a persona? How do I structure a letter? How do I use a range of structural methods in my own creative writing? How many sentence structures and forms can I used effectively in my own creative writing?

### Maths

Key Ideas	Sparx Code	S	0	R	Т
I can plot and interpret conversion graphs	M771				
I can draw and interpret distance-time graphs	M581, M551				
I can draw and interpret velocity-time graphs	U937				
l can share quantities given and total or one part	U595				
I can write ratios in the form 1:n and n:1	M543				
I can combine two ratios	U921				
l can write a ratio as an equation, and an equation as a ratio	U676				
l know the basic angle facts- angles around a point, vertically opposite angles, angles on a straight line and angles in a triangle	M818				
I know the angle facts in parallel lines- corresponding, alternate and co-interior	M606				
I know the properties of quadrilaterals, including their angles	M276				
l can identify polygons	M276				
l know the difference between a regular and irregular polygon					
I can find the exterior angles in a polygon	M653				

## Science

Key Ideas	S	0	R	Т
I can describe the different pathway that current takes in series and parallel circuits.				
I can draw series and parallel circuits using symbol components.				
l can define current				
l can define potential difference				
l can define resistance				
I can calculate potential difference using the equation V=I x R				

### Science

Key Ideas	S	0	R	Т
I can calculate gravitational potential energy				
I can calculate kinetic energy				
I can compare conduction, convection and radiation				
I can identify how waves travel on the electromagnetic spectrum				
I can compare conduction, convection and radiation				
I can identify how waves travel on the electromagnetic spectrum				
l can compare conduction, convection and radiation				
I can identify how waves travel on the electromagnetic spectrum				

### Art

Key Ideas	S	0	R	Т
l can use tone, texture, line, shape, scale and composition in observational drawing				
l can explain the work of Halima Cassell , Barbara Hepworth and Peter Randall-Page understanding how they develop texture and form from observation				
l can explain how to develop my ideas into an abstract 3D form				
I have experimented with a range of materials.				
l can refine my work through annotation				

## Computing

Key Ideas	S	0	R	Т
I know that the binary number system uses only two digits 1 and 0, like a switch (on and off)				
I know that the number system which uses ten digits (0-9) is called Decimal or Denary				
I know that binary is also called Base 2 because it only uses two digits and Denary is also called Base 10				
I can explain how place value can be used to convert between Binary and Denary				
I know the units of measurements				
I can add 4-digit Binary numbers				
I can complete Boolean logic tables for AND and OR				

## Design Technology

Key Ideas	S	0	R	Т
I can recall and define the tier three vocabulary in this Unit				
I can select material combinations that are aesthetically pleasing				
l can create a design on paper				
I can use 2D Design to create a design				
I can use hand tools safely and with precision				
I can use a laser cutting machine to accurately produce my components				
l can join materials using an appropriate method				
I can evaluate the finish of my work and link this to how precisely I have used tools				

### Drama

Key Ideas	S	0	R	Т
l can identify the main features of different types of theatre - Ancient Greek, melodrama, Commedia Dell'Arte				
l can use exaggerated physical and vocal skills to characterise stock characters				
l can structure a performance effectively and apply dramatic techniques to good effect				
l can perform with confidence and stay in role				

## Food

Key Ideas	S	0	R	Т
I can explain how to thicken a white sauce using gelatinisation				
I know how to remove lumps from a white sauce				
I can explain the four conditions yeast needs to be activated				
l understand the importance of kneading bread				
l can give examples of bread from different cultures				
I can explain the importance of presentation				

## Geography

Key Ideas	S	0	R	Т
Define key terms and give examples of case studies				
Explain the impacts of the UK heat wave				
Explain the causes of the Greece wildfires				
Explain the distribution of tropical storms worldwide				
Name the 3 types of tropical storms				
Explain the stages in the formation of a tropical storm				
Explain the causes of hurricane Katrina				
Explain the effects of hurricane Katrina				

## Geography

Key Ideas	S	0	R	Т
Define key terms and give examples of case studies				
Explain how plants adapt to hot desert climates				
Explain the four main challenges facing hot deserts				
Describe the polar biome physical characteristics				
Explain how plants adapt to a cold desert environment				
Explain how animals adapt to a cold desert environment				
Describe the strategies used to protect fragile desert biomes				

## History

Key Ideas	S	0	R	Т
I can name examples of countries in Britain's Empire				
I can explain how certain countries experienced life in Britain's Empire				
I can analyse the impact the Empire had on certain countries				
I can give examples of groups in Britain who experienced prejudice				
I can state how treatment of certain groups in Britain changed				
I can explain why the treatment of certain groups in Britain changed				
I can make supported judgments about my enquiry questions				
I can evaluate the finish of my work and link this to how precisely I have used tools				

### Music

Key Ideas	S	0	R	Т
l understand what minimalism is and some of the key features of it				
I understand how to use different compositional features to add or change a theme to make small differences				
I know what a pedal is in music and how it is used				
I have understood what the difference between major and minor is and how to form a major and minor scale				
l understand what an ostinato is and how to describe it				
I can name two famous minimalist composers				

## **Religious Education**

Key Ideas	S	0	R	Т
l can define radical				
I can explain some of the reasons that Jesus might be considered radical				
I can outline key quotes linked to the actions of Jesus				
I can explain why these quotes are used to show radical action				
I can explain how modern readers may use the sources of authority in their own actions, based on the actions of Jesus				
I can discuss the actions and faiths of others with respect and care				

## Spanish

Key Ideas	S	0	R	Т
I can use the present tense to talk about my hobbies and freetime				
I can use frequency phrases in spoken and written sentences				
I can give an opinion and a reason in Spanish				
I can form the preterite tense of regular verbs				
I can use the verbs 'hacer', 'ver', 'tener' & 'ir' in the preterite tense				
I can use the near future tense to talk about my weekend plans				
l can describe a photo				

## Year 8 Learning Cycle 2 English - War poetry

### 1. How to Analyse a Poem

M - Meaning M	What is the poem about? Who or what does it focus on? What idea(s) are most important?
C - Context C	What was happening at the time the poem was written? What are the poet's experiences and beliefs?
L - Language L	Which words are most important? What are their meanings and connotations? Has the writer used any similes, metaphors or personification?
T - Tone T	What are the most important images in the poem? How do they add to the writer's idea(s)?
l - Images I	What are the most important images in the poem? How do they add to the writer's idea(s)?
S - Structure S	What is interesting about line length or stanza length? How does the poem begin and end?

## 2. What, How, Why Paragraphs

WHAT is the writer saying about character/ theme/ setting?

HOW are they revealing information and creating effects for the reader? Quotation? Language methods?

WHY have they chosen to do this? Purpose? In the opening lines of the poem, the poet presents the sea as intimidating. The adjective "giant" conveys the huge size of the sea and its great force. It might suggest that the sea is far bigger and more powerful than human beings. Furthermore, the use of the word "giant" might allude to the mythical, super-human creature, which might again make the reader picture the sea as a colossal and aggressive being.

## 3. Key Poems

**3a = The Iliad by Homer** An epic poem by the ancient Greek poet Homer in around the 8th century BCE, which recounts some of the events of the final weeks of the Trojan War. It includes stirring scenes of bloody battle, the anger of Achilles and the involvement of the gods.

**3b** = Who's for the Game? By Jessie Pope A poem whose purpose was a 'call-to-arms', a targeted address to young men with the aim of getting them to enlist in the British Army. The poem was first published in a newspaper in 1915, before signing up to fight was made compulsory.

3c = The Gift of India by Sarojini Naidu

In this poem Naidu is paying tribute to the service of the Indian Army, but also making a statement about how their sacrifice should be recognized.

#### 3d = Attack by Siegfried Sassoon A

haunting poem that discusses the reality of war and what happens when a soldier is out on the battlefield. Written by British poet and World War I soldier Siegfried Sassoon, it describes the moment when soldiers, following the order to "attack," go over the trenches and into the line of enemy fire. This often resulted in a catastrophic loss of life.

#### 3e = Dulce Et Decorum Est by Wilfred

Owen This poem illustrates the brutal everyday struggle of a company of WWI soldiers, focuses on the story of one soldier's agonising death, and discusses the trauma that this event left behind.

#### 3f = Last Post by Carol Ann Duffy This

poem imagines the poet an alternative course of events in a war, in which time

runs backwards, so that British soldiers lift themselves out of the violence, drop their guns and return home.

**3g = Invasion by Choman Hardi** Hardi's poem focuses on the ongoing conflict between. Saddam Hussein's government and her own people, the Iraqi Kurds.

### 4. Subject Vocabulary

4a = poem (noun) a piece of writing in which the words are arranged in separate lines and are chosen for their beauty and sound.

4b = stanza (noun) A group of lines in a poem; a verse.

4c = language (noun) Words or methods (techniques) used by writers to present their meanings or create effects.

4d = structure (noun) The way the poet has organised the poem on the page, including stanza length, line length, title and ending.

4e = connotations (noun) A feeling or idea that is suggested by a particular word.

4f = imagery (noun) The use of language to create vivid pictures in the readers' minds.

4g= simile (noun) Comparing one thing to another to highlight their similarities.

4h = symbol (noun) A character, idea, image or setting that represents a bigger idea

4i = tone (noun) The attitude a writer shows towards a topic using words.

## Year 8 Learning Cycle 2 English - Journey's End

### 1. Characters

la = Captain Dennis Stanhope A young man, but he has already seen three years of combat and his men see him as a brave leader. The war has changed him, turning him from a rugby captain and school hero into a hard-drinking man with ruined nerves. He knows Raleigh from before the war and Stanhope is romantically involved with Raleigh's sister. Because of this, Stanhope is wary of Raleigh, as he thinks Raleigh will write letters to his sister telling her that he drinks too much. However, he continues to drink, eventually admitting that it is a result of his fear of the war.

**1b = Second Lieutenant Raleigh** A young officer who has always admired Stanhope from school. However, when he arrives in the trenches and sees Stanhope, he is surprised to find his role model significantly changed. Raleigh remains eager as he becomes accustomed to life in the trenches. When Osborne is killed, this changes Raleigh, making him sombre and sad. When the Germans attack the British trenches, Raleigh is badly injured, and Stanhope stays with him until the end.

**1c = Second Lieutenant Osborne** The second-in-command to Stanhope. Osborne is a bit older than the other soldiers, but he is well-liked. He helps to keep Stanhope —his superior—calm. Osborne talks to the men about the nature of war and gives them advice. However, he has trouble seeing the point of the war. He dies in a raid.

1d = Second Lieutenant Hibbert An officer who is so afraid of dying in the trenches that he pretends to suffer from neuralgia (intense nerve pain). However, Stanhope tells him that can't leave or go to the doctor. He admits that the real reason he wants to leave is because he can't stand the stress and fear of being at war. He then forms an unlikely bond with Stanhope. When the Germans finally stage their massive attack, Hibbert eventually leaves the safety of the dugout to face the enemy.

**le = Second Lieutenant Trotter** An officer who is jovial, mocking, and gluttonous, frequently giving Mason—the cook—a hard time about the food served in the dugout. He provides comedic relief in the play. He creates a chart that outlines the remaining hours he and his fellow officers have to spend in the trenches before going back to a safer area.



## Year 8 Learning Cycle 2 English - Journey's End

## 2. Plot

Act 1	The play opens in a dugout in the British trenches in Northern France. The action begins on the evening of Monday 18 March 1918 and continues over three days. The play begins with Captain Hardy and Osborne discussing Stanhope. After Hardy leaves, Raleigh - enters. Osborne tries to hint to Raleigh that Stanhope is a changed man but Raleigh fails to understand. Raleigh is excited and enthusiastic about being on the front line.
	When Stanhope enters it is clear he is shocked and uncomfortable at Raleigh's presence. Through a conversation with Osborne we discover that Stanhope's addiction was caused by the terrible realities of trench life.
Act 2, Scene 1	Early on Tuesday morning Osborne and Raleigh discuss their past lives before the war. They talk about rugby and how slowly time passes in the trenches. They reflect on how the Germans are just normal people. Stanhope tells his officers that a captured German soldier has revealed that an attack on their men is planned for two days' time. Stanhope - because he is so worried about Raleigh revealing his alcoholism to his sister - insists on checking his letter home but on reading it he finds that Raleigh has only the highest praise for Stanhope. Stanhope seems to feel ashamed.
Act 2, Scene 2	The Colonel arrives to inform Stanhope that Raleigh and Osborne will participate in an imminent raid on the Germans. Hibbert tells Stanhope that he is suffering from neuralgia and can no longer cope. Stanhope will not allow him to go sick and threatens execution for desertion if he does. Eventually Stanhope – using the powers of persuasion and leadership – convinces Hibbert to stay. Osborne and Trotter disapprove of the timing of the raid. Raleigh is unaware of the danger and is excited for the battle.
Act 3, Scene 1	Stanhope too thinks a daylight raid is ridiculous and dangerous, but the Colonel is adamant. Osborne talks acceptingly about the plans and Stanhope insists - unconvincingly - that all will be well. Osborne and Raleigh quote a passage from Alice in Wonderland. They are trying to keep calm, but admit they are nervous. A young German soldier is captured in the raid, but Osborne and six other men are killed. Raleigh is wounded. Stanhope finds it difficult to hide his contempt for the Colonel's apathy about their deaths.
Act 3, Scene 2	The officers are having a post-raid celebratory dinner. Stanhope seems in a bad mood. He has an argument with Hibbert and gets angry with Raleigh for not attending the dinner. Raleigh explains that he is grieving for Osborne. Stanhope shows his devastation at Osborne's death and the audience realise that his drinking and jovial dinner chat has all been to cover up his grief.
Act 3	This final scene takes place at dawn on Thursday morning. It is pitch dark and there is silence apart from the sound of guns. Stanhope is woken by Private Mason - the cook - and is drowsy and cold.
Scene 3	There is tension in the dugout as the men and the audience wait for the attack.
	It is finally here, having first been mentioned two days earlier. Hibbert is frightened and reluctant to go out, but with encouragement he leaves to fight. The battle begins. The Sergeant Major arrives to tell Stanhope that Raleigh has been badly injured, his spine is broken. Raleigh is carried into the dugout. It becomes clear that Raleigh is dying. Stanhope stays by his side, comforting him. He attempts conversation, but there is no reply. Stanhope is called to leave as the battle intensifies. As he ascends the steps the roof collapses, with Raleigh's body inside. The fate of the other characters is unknown.

## Year 8 Learning Cycle 2 English - Journey's End

### 3. Context

**3a = R.C. Sherriff** Sherriff served in the East Surrey Regiment, fighting in several notable battles until he was finally injured in 1917. At this point, he returned to his original line of work. During this period, he began to write plays, drawing upon his wartime experiences in works like Journey's End, his most celebrated play.

**3b** = **Setting** Journey's End takes place during the final year of the war. More specifically, the play elapses over the days leading up to the Battle of St. Quentin, which began on March 21st and marked the beginning of Operation Michael, a German offensive attempt to advance through Allied lines

**3c** = **Dugouts and Trenches** Long, narrow and deep ditches dug into the ground at the front, usually by the soldiers who would occupy them for weeks at a time, trenches were designed to protect troops from machine-gun fire and artillery attacks from the air. Steps would allow the soldiers to climb up onto the battlefield.

Dugouts were protective holes dug out of the sides of trenches. The size of dugouts varied a great deal and sometimes could house over ten men.

## 4. Themes



## 5. Vocabulary

5a = reputation (abstract noun) the opinion that people in general have about someone or something, based on their behaviour or actions

5b = fascinating (adjective) extremely interesting

5c = decent (adjective) behaving in a good or socially acceptable way

5d = solitary (adjective) alone, the only one thing or person in a place

5e = uncanny (adjective) strange or mysterious, often in a way that is slightly frightening

5f = coward (noun) a person who is not brave and is too eager to avoid danger, difficulty or pain

5g = chap (noun) a man

5h = sob (noun) a noisy cry of sadness or pain

5i = strain (noun) something that makes you nervous or worried; a force that stretches or puts pressure on something

5j = deceive (verb) to keep the truth hidden from someone for your own advantage.

5k = desert (verb) to leave the armed forces without permission

5I = disobey (verb) to refuse to do something you are told to do

## 6. 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 = entrance (noun) The act of an actor walking on to the stage.

**of** = **exit (noun)** The act of an actor walking off the stage.

6g = dramatic irony (noun) a moment when the audience is aware of something the character(s) is not aware of.

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

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

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

6k = foreshadowing (noun/verb) An indication or hint of what is to come later in the story.

6l = subtext (noun) The underlying and often unspoken thoughts and motives of characters – what they really think and believe.

## Year 8 Learning Cycle 2 Maths - Key Words

Linear Graph	A straight line graph
Conversion graph	A graph used to link two units. Can be used to convert between units.
Gradient	A measure of how steep a line is
Speed	The rate at which an object is travelling
Velocity	Speed, with a given direction
Ratio	A relationship between two quantities
Adjacent	Next to
Parallel Lines	Lines which never meet
Quadrilateral	4-sided shape
Rhombus	A quadrilateral where all sides are the same and opposite angles are equal
Kite	A quadrilateral with a line of symmetry across one of its diagonals
Trapezium	A quadrilateral with one pair of parallel lines
Parallelogram	A quadrilateral with two pairs of parallel lines and two pairs of equal side lengths
Regular shape	A shape where all side lengths are equal, and all angles are equal
Irregular shape	A shape where all side lengths are not equal, and all angles are not equal
Polygon	A 2d shape with 3 or more straight edges.
Interior angles	The angles found inside a polygon
Exterior angles	The angles found outside of a polygon

## Year 8 Learning Cycle 2 Maths - Real life graphs

## 1. Conversion graphs

- Straight line graph
- Show the relationship between two units
- Can be used to convert from unit to another



### 2. Distance-time graphs

- Show the distance an object has travelled against time
- Time goes on the x-axis
- Distance goes on the y-axis

### 3. Velocity-time graphs

- Show the motion of an object against time
- Time on x-axis
- Speed/velocity on the y-axis





## Year 8 Learning Cycle 2 Maths - Ratio

## 1. Sharing in a ratio

- Count the total number of parts
- Find the value of one part by division
- Multiply to find the value of each group

#### Nikki : Gemma



Value of each box =  $\pounds 36 \div 9 = \pounds 4$  per box



### 4. Writing equations as ratios

Write **4x = y** as a ratio **x** : **y** 



x:y 1:4

X is the smaller quantity.

## 2. Ratios in the form 1:n or n:1

Simplify the ratio to get a 1 on the side indicated in the question

Do not worry if you get a decimal/fraction on the other side



## 3. Combining ratio

Find the LCM of the overlapping numbers.

Convert both ratios to equivalent ratios with the LCM as the overlapping number

Combine

If a:b = 2:3 and b:c=4:5, find a : b : c



## Year 8 Learning Cycle 2 Maths - Lines and Angles

## 1. Recap-basic angle facts

- Angles on a straight line sum to 180°
- Angles on a triangle sum to 180°
- Angles around a point sum to 360°



## 2. Angles in parallel lines- vertically opposite

Vertically opposite angles are equal



### 3. Angles in parallel lines-corresponding

Corresponding angles are equal



4. Angles in parallel lines- alternate

Alternate angles are equal



5. Angles in parallel lines- co-interior



## 6. Quadrilaterals



## 7. Angles in parallelograms

Opposite angles in a parallelogram are equal



## 8. Polygons

Regular- all sides and angles are equal

Irregular- different side lengths, different angles



## 9. Exterior angles in Polygons



## 10. Interior angles in Polygons

Interior angles and exterior angles are on a straight line. Meaning that they sum to 180°



n is the number of sides which the shape has.

## Year 8 Learning Cycle 2 Maths

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Square numbers: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144

Cube Numbers : 1, 8, 27, 64, 125

Prime numbers: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47...

### Useful features on your calculator:

FACT: this expresses a number as a product of its prime factors

RATIO (menu 4): this will find missing values within equivalent ratios

Table (menu 3): This is where you can generate values within a table- useful for plotting graphs and generating terms of a sequence

Statistics (menu 2): this will find all of the averages from a table of data

<sup>o</sup><sup>''</sup>: This is the mean average time button and can do conversions between time units, as well as calculations with different times

Fraction button: can be used for any calculations with fractions

S-D: Converts decimal answers to fractions and vice versa



## Year 8 Learning Cycle 2 Maths - Sparx Maths

# **Sparx Maths**

Homework will be set on Tuesdays and will be due at 7:30am on the following Tuesday

You must complete 100% of the homework- if you have not got 100% of the questions correct, then you have not done your homework

You will receive a merit for completion of your homework

If you complete one of the extra homeworks- XP Boost or Target, you will receive another merit - they must be 100% complete

Sparx clinics will run Monday, Tuesday, Thursday in W4 - a Maths teacher will be on hand to support you, if you are unsure of any of the notes covered

It is your responsibility to seek help BEFORE the deadline, if you get stuck

Your bookwork will be checked in lessons- you must write full workings for every question.

You must bring your homework book to the first lesson after Tuesday 7:30am- if you do not have your book, then you have not completed your homework

Honework	Thursday It June 2077
Tark 1	$E 4 1 P(yellow) = \frac{3}{6} \times$
D+0 12 + 13 = 25 V	FSI PLAIack) = 4
$E50$ $4 \times 3 + 2 \times 5 =$ 12 + 10 = 22	
$F(0) \begin{pmatrix} 1 \\ 1 \\ 2 \\ 2 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3 \\ 3$	G 6 1 All the markles are green
$\frac{1}{14} + \frac{1}{7} + \frac{1}{21} \times \frac{1}{21} \times \frac{1}{21}$	The probability of choosing a purple markle
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	471 P(odd) = 3 5
A01 + 413 162 655	Tart 3 T22 Eucer
811 Area = 3 × 14	#32 Unlikely ×
* 1 3 Area = 46 cm² /	LAZ B, A, C
$CL I = \frac{f}{3} + \frac{f}{71} + \frac{f}{71} = \frac{f}{33} + \frac{3}{35}$	D13 4 black, L red, L blue

## Year 8 Learning Cycle 2 Science - How can I use the Periodic Table?



Subatomic Particle	Mass	Charge
Proton	1	+1
Neutron	1	0
Electron	Negligible	-1



## Year 8 Learning Cycle 2 Science - Experiments

1. Key Terms	Description
Independent variable	The variable you change in an investigation
Dependent variable	The variable you measure in an investigation
Control variable	The variable you keep the same in an investigation
Hypothesis	A prediction of what will happen in an investigation
Reliability	We use control variables to ensure a reliable experiment
Reproducible	To re-do our experiment and get similar results due to a reliable method
Mean	Doing an experiment 3 times then dividing by 3 to get an average
Fair test	An experiment where only the independent variable changes
Anomalous result	Result that does not fit with the rest of the data

### 2. Designing and performing experiments



**Repeatable** – The same person gets the same results after repeating the experiment using the same method and equipment.

**Reproducible** – Similar results can be achieved by someone else or using a different method/piece of equipment.

Accurate – Results are close to the true answer

Precise – data is close to the mean (or the average!)

## 3. The Variables



#### Drawing conclusions from data:

- 1. State the **relationship** between the independent and dependent variable, e.g., **'as the time increases the product formed increases.'**
- 2. Use statistics to support your answer. 'For example, at 10 minutes there was 50g of product, compared to 160g at 20 minutes'

For data to be

reliable, it must be

repeatable and

reproducible

3. Refer to the original hypothesis – does the data support this?

When **evaluating** think of the **positives** and **negatives** of the method (the validity - did they use enough controls? And of the results - were results **reliable, accurate, reproducible?**) and come to an overall conclusion.

### 4. Presenting Data



## Year 8 Learning Cycle 2 Science - Science in action (Electricity and Circuits)

1. Key Terms	Description
Component	A part of a circuit e.g. a battery, motor, lamp, switch or wire
Current	Current is the flow of charge. It is measured in amps (A)
Potential difference	The amount of energy transferred by each unit of charge passing between two points of a circuit. The unit for potential difference is volts (V)
Resistance	How difficult it is for current to flow
Series circuit	All the components are connected in one loop so there is only one route for current to flow
Parallel circuit	Components on separate branches, so the current can take different routes around the circuit

### 2. Circuit components and symbols



## 3. Series circuits

When we connect in series they are all in the same loop one after another, just like episodes of a series on television.

The components are

connected end-to-end with the last wire completing the circuit to form the single loop, meaning there is only one path for the to flow.

## 4. Parallel circuits



In a parallel circuit, if a

lamp breaks or a component is disconnected, the other components continue working.

This is because current continues to flow along remaining

paths in the circuit.

Series circuits revision

https://www.bbc.co.uk/bitesize/topics/ zgy39j6/articles/zs3htrd



Parallel circuits revision

https://www.bbc.co.uk/bitesize/topics/ zgy39j6/articles/z34yf82

### 29

## 5. Modelling circuits

The movement of the water through the pipe is like the movement of electrons through a circuit.

This circuit diagram represents the water model.



## 6. Resistance

To find the resistance of a component we need to know the potential difference (V) across it and the current (I) flowing through it. We can then use the formula to calculate the resistance:

$$Resistance = \frac{potential \ difference}{current}$$

The equation can also be written using symbols:  $R=rac{V}{I}$ 

Example:



Current and potential difference revision

https://www.bbc.co.uk/bitesize/topics/ zgy39j6/articles/zd9d239

**Resistance** revision





https://www.bbc.co.uk/bitesize/topics/ zgy39j6/articles/z6n27yc

9

## Year 8 Learning Cycle 2 Science - Science in action (Electricity and Circuits)

## 1. How to answer a 6 mark question

Question	<ol> <li>Compare the current and potential difference in the bulbs between the two circuits. Assume the current and potential difference at the cells are 10A and 10V.</li> <li>What is the advantage of having the bulbs arranged the way they are in circuit A instead of circuit B?</li> </ol>		B 			
Top tip	Compare means say how they are similar and how they are different. In series, current is the same everywhere, but potential difference is shared between components. Parallel circuits are the opposite. Current is shared between the loops, but potential difference is the same in every loop.					
	A is a parallel circuit. The potential difference will be the same in all loops of this circuit so both bulbs have a potential difference of 10V. Current will split at the junction between the loops so each bulb in circuit A will receive a current of 5A.					
Model answer	B is a series circuit. Current is the same everywhere so each bulb will receive a current of 10A. Potential difference in a series circuit is shared between components so each bulb will receive a potential difference of 5V.					
	Therefore, the bulbs in A will have a higher potential difference but a lower current than the bulbs in B.					
	Circuit A is better for powering multiple bulbs. This is because if one bulb breaks, the other will carry on working. In circuit B, if one bulb breaks the other will also stop working.					
Practice	Learn and practice the model answer above. Know the rules for how current behave in c	a series and parallel circuit.				

## Year 8 Learning Cycle 2 Science - Energy

1. Key Terms	Description
Energy	Energy can be stored and transferred. Energy is a conserved quantity.
Kinetic energy store	The amount of energy in the kinetic energy store depends on the speed of the object.
Gravitational potential energy store	The amount of energy in the gravitational potential energy store depends on the height of the object.
Work	This is done when energy is transferred.
Power	The energy transferred each second, measured in watts (W).
Conduction	Energy transfer by heating through a solid due to collisions between particles.
Convection	When particles with a lot of thermal energy in a liquid or gas move and take the place of particles with less thermal energy.
Radiation	The transfer of heat energy by electromagnetic waves without involving particles.

## 2. GPE and KE calculations

Energy in the gravitational potential energy store(Ep) = mass (m) x gravitational field strength (g) x height (h)

$$Ep=m imes g imes h$$
 p

On Earth, the gravitational potential energy (g) is 9.8 N/ <g.

Energy in the kinetic energy store

 $Ek = 0.5 imes m imes v^2$   $(Ek) = 0.5 imes mass (m) imes velocity^2 (v^2)$ 

## 3. Energy efficiency and Sankey diagrams

Sankey diagrams summarise all the energy transfers taking place in a process. The thicker the line or arrow, the greater the amount of energy involved.

This Sankey diagram for an electric lamp shows that most of the electrical energy is transferred as heat rather than light.



#### Calculating efficiency

The efficiency of a device, such as a lamp, can be calculated:

efficiency = useful energy out ÷ total energy in(for a decimal efficiency)

#### or

efficiency = (useful energy out ÷ total energy in) × 100(for a percentage efficiency)

## 4. Convection and radiation

#### Convection

Convection occurs when particles with a lot of heat energy in a liquid or gas move and take the place of particles with less heat energy.

#### Radiation

Heat can be transferred by infrared radiation, a type of electromagnetic radiation that involves waves.

Radiation doesn't require particles to transfer energy.

Surface	Absorption	Emission
Dull, matt or rough	Good	Good
Shiny	Poor	Poor

## 5. Conduction



## Year 8 Learning Cycle 2 Science - Energy

## 7. Revision Materials

## 8. How to answer a 6 mark question

Energy stores and transfers revision https://www.bbc.co.uk/bitesize/ topics/zc3g87h/articles/zg2sn9q	Question	Explain the changes in energy that occur when a box dropped from a height and lands on the ground, remaining stationary. (6 marks)
Energy calculations revision	Toptip	You must state the energy stored in the object before it is dropped from a height (gravitational energy),while it is dropping (gravitational energy is decreasing but kinetic energy is increasing).
topics/zc3g87h/articles/ zm6yf82	юрпр	You must also state how the energy is transferred from gravitational to kinetic store. The box falls due to gravity (a force) so energy is transferred mechanically.
		Before it is dropped, the box has energy in the gravitational energy store because it is high up. As the box falls, its gravitational energy decreases as it is transferred to kinetic energy.
Conduction, convection and radiation revision	Model answer	This transfer of energy is caused by the force of gravity, so energy is transferred mechanically (by mechanical working).
https://www.bbc.co.uk/bitesize/ topics/zc3g87h/articles/znw7jsg		When the box hits the ground, it stops moving so its kinetic energy becomes zero. This energy is transferred to the surroundings by sound waves and by heating, causing the ground to increase in temperature.
Electromagnetic radiation	Practice	Learn and practice the model answer above.
revision https://www.bbc.co.uk/bitesize/		

nπps://www.bbc.co.uk/bi topics/zw982hv/articles/ zq26nk7

## Year 8 Learning Cycle 2 Science - Clubs and Reading

### 1. Science reading opportunities

ŝ×

The Fab 5

PREDICT

What does? CLARIFY

synonym..

diaaram... label.. what does this mean? I think I recognise this word..

TALK THE TEXT Why is this text important? How does it link to my learning? What key information can I take from the text? SUMMARISE

bullet point key ideas. highlight key words... The most important part is..

next... also... finally...

I think... I predict. l wonder.

I imagine... I suppose.. QUESTION

I wonder... Who? What? Where? When? Why? How? What if?

Label the key points / Paragraphs.

2. Young scientists club







### 3. STEM club



uk/

Eden at home

https://www.nasa.gov/







com/learn/eden-at-home

NASA



Science Experiments for Kids



https://www.science-

sparks.com/





Miss Freestone and Miss Millward S6 Wednesdays 3.15pm





https://www.bbc.co.uk/ bitesize/subjects/zng4d2p

https://www.edenproject.



## Year 8 Learning Cycle 2 Art - Natural Forms 3D

### 1. Tier Three Vocabulary

Key Words	Definitions
Simplify	To remove detail, tone and fuss to create a simple shape or line
Monochrome	No colour
Stylized	Depicted or treated in a mannered and non-realistic style
Resource Materials	Collection of images used to inform ideas and develop understanding
3D	Solid object with height, width and depth.
Graphic	Shape that is flat and simple



Halima Cassel



Peter Randall-Page

### 2. What do I need to know?

The formal and visual elements (such as line, shape, form, pattern, texture, colour etc). These elements combine to communicate in many ways, often suggestive of histories and traditions.

### 3. What will I learn?

We are going to continue to develop our observation skills through experimentation of materials; building on skills and knowledge to create a 3D abstract final outcome.

#### Barbara Hepworth



## Year 8 Learning Cycle 2 Computing - Representing Data

## 1. Binary Digits

Key Words	Definitions
Switch	Early computers used simple switches to store data. The switch was either ON or OFF
Binary Numbers	Binary is a number system that only uses two digits: 1 and 0. All information that is processed by a computer is in the form of a sequence of 1s and Os
Base 2	Binary is also known as base 2 because there are only 2 possible numbers for each digit

## 2. Units of measurement

Measurement	Abbreviation	Conversion
Bit	b	1 bit
Byte	В	8 bits
Kilobyte	КВ	1000 bytes
Megabyte	MB	1000 Kilobytes
Gigabyte	GB	1000 megabytes
Terabyte	ТВ	1000 gigabytes
Petabyte	PB	1000 terabytes

## 3. Numbers in binary

Key Words	Definitions
Denary	This is the number system normally used, also called decimal. It uses 10 digits, 0-9
Place Value	Converting between Binary and Denary requires the use of place value

128	64	32	16	8	4	2	1	Denary
0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	1	0	2
0	0	0	0	0	0	1	1	3
0	0	0	0	0	1	0	0	4
0	0	0	0	0	1	0	1	5
0	0	0	0	0	1	1	0	6
0	0	0	0	0	1	1	1	7

## Year 8 Learning Cycle 2 Computing - Using Binary

### 1. Binary Addition

There are four rules that need to be followed when adding two binary numbers. These are:

O + O = O	Zero + zero = zero
1 + O = 1	One + zero = one
1 + 1 = 10	10 in binary = 2 in denary
1 + 1 + 1 = 11	11 in binary = 3 in denary

## 1+1+1=1111 in binary = 3 in denaryThe rules can be used to add larger binary numbers:

		<b>.</b>	
8	4	2	1
	1	1	0
	1	1	1
1	1	0	1
1	1		

1 is carried to the next column

## 2. Boolean Logic

Key Terms	Description
Boolean	Boolean logic is a form of algebra where all values are either True or False
Condition	In computing, this is a statement or sum that is either true or false. A computation depends on whether a condition equates to true or false
Truth Table	AND considers two (or more) conditions. The result is True if the result of all comparisons is True.
	OR considers two (or more) conditions. The result is True if either comparison is True

### AND

OR

А	В	Result	А	В	Result
FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
FALSE	TRUE	FALSE	FALSE	TRUE	TRUE
TRUE	FALSE	FALSE	TRUE	FALSE	TRUE
TRUE	TRUE	TRUE	TRUE	TRUE	TRUE

## Year 8 Learning Cycle 2 Design Technology - Clocks

1. Key Words	Definitions
CAD	Computer Aided Design – Using software on a computer to produce 2D or 3D designs
САМ	Computer Aided Manufacturing – Using computer-generated code to control machinery used to make a product
Acrylic	A type of plastic that is available in a variety of different colours
Mechanism	A system of moving parts that work together in a product
Laser Cutting Machine	A tool that uses a narrow laser beam to melt, burn or vaporise materials to cut or etch them
2-D Design	A piece of CAD software used to produce designs on a computer
Target-Market	A group of potential customers that a product is aimed at
Budget	A plan of the total cost of producing a product
Design period	The style of design used for a product, such as Art Deco, Pop Art or Steampunk
User-Centred Design	A design process that focuses on the users and their needs when designing a product

### 4. Using CAD/CAM

At Poltair School, we use a piece of CAD software called 2-D Design.

Designs can be produced in 2-D Design and then the file exported to be turned into machine code.

Machine code can then be used by a device such as a laser cutting machine to physically cut out or etch the original design using materials like wood or acrylic.

## 2. Analysing Existing Designs

difficult to read.

The face of this clock has been made using blocks of softwood that have then been painted. Unlike hardwoods, softwoods are fast growing and relatively cheap. This makes them a more sustainable resource. The colours can be customised to make personal clocks for different users, but the lack of numbers may make this clock face





The face of this clock has been made using plywood. Unlike hardwoods or acrylic, plywood is a more sustainable resource. The product has been cut using a laser cutting machine. The colours can easily be changed and customised to make clocks to suit the needs of different users.

The face of this clock has been made using

coloured acrylic. Unlike wood, acrylic is NOT

a sustainable resource as it is usually made from crude oil that is finite. The shapes have been designed using CAD and cut using a laser cutting machine. Different designs and colours could be made for different users but

the small hands and lack of numbers may also make this clock face difficult to read.

## 5. Workshop Safety

- 1. Always wear goggles when using tools. This includes hand tools as well as machine tools.
- 2. Do not use a tool unless your teacher has shown you how to use the tool safely. Ask to be shown again if you have forgotten how to use the tool safely.
- 3. The solvents used to bond acrylic can be harmful. They will only be handled by staff and we will only use them in small quantities in a well-ventilated room. We call these actions Control Measures and they help to ensure that everyone stays safe.

## 3. Identifying Target Markets

Designers need to collect information about the needs and preferences of the users that they are designing products for. This can include age, gender, favourite colours, hobbies/interests and physical needs.



Once the information has been collected, a designer can create a moodboard of images, colours and ideas based on the user's needs and preferences to help inform their design.

## 6. Links and further reading

User-Centred Design:

https://www.bbc.co.uk/bitesize/guides/ z6jkw6f/revision/2





Identifying Target Markets:

https://www.bbc.co.uk/bitesize/guides/ zbn6pbk/revision/2

Revise:Mindmap Maker is.gd/mindmapmaker



## Year 8 Learning Cycle 2 Drama - Theatre Through Time

### 1. History of Theatre

The History of Theatre is an exciting journey through different styles and time periods.

Ancient Greek Theatre flourished between 550BC and 220BC. A festival honouring the god Dionysus was held in Athens, out of which three dramatic genres emerged: tragedy, comedy and the satyr play.

Western theatre that we recognise today has its roots in the theatre of Ancient Greece and the plays that originated there.

Another style is Commedia dell'arte from Italy in the 16th century, a type of improvisational theatre with colourful costumes and comedic, exaggerated characters. In the 19th century, there was Victorian melodrama, which had heightened emotions and drama and exaggerated characters. These different styles have influenced theatre and made it what it is today.

## 3. Greek Theatre

Key Words	Definitions	
Greek chorus	The chorus consisted of between 12 and 50 players, who variously danced, sang or spoke their lines in unison, and sometimes wore masks	
Tragedy	A play dealing with tragic events which have an unhappy ending	
Choral speaking	Speaking as part of a group	
Synchronised movement	Moving together	
Unison	Means to speak at the same time	
Mirroring	Executing the same movement as another performer but in mirror image	
Echo	The repetition of a sound caused by reflection of sound waves	
Further links:		



National Theatre

www.youtube.com/watch?v=aSRLK7SogvE

## 4. Victorian Melodrama

Key Words	Definitions
Stock Characters	A stereotypical character in a melodrama
Exaggeration	The representation of something more extreme than it really is
Aside	A remark that is intended to be heard by the audience but unheard by other characters in the play
Provocation	The initial cause for setting action into motion – jealousy or greed forces an evil character to plan an offence
Pangs	The consequential sufferings of the good and innocent characters who are caught up in the evil plot
Penalty	In a last minute twist of fate, the wicked character has their plans foiled and receives a punishment for his/her evil actions

#### Further links:

Melodrama Narrative

https://www.britannica.com/art/melodrama



## 2. Commedia dell'arte

Key Words	Definitions
Archetypal Characters	type of character in a narrative with distinguished characteristics whom audiences recognise across many narratives or as part of a storytelling tradition
Prepared Improvisation	When the actors are given the time to plan and discuss ideas before presenting or performing a piece of drama
Soggetto	The 'idea' that inspires the prepared improvisation
Gesture	A movement of part of the body, especially a hand or the head, to express an idea or meaning
Gait	A person's manner or way of walking

Further links:



The World of Commedia

https://www.youtube.com/watch?v=h\_OTAXWt8hY

## Year 8 Learning Cycle 2 Food - Knead to Know

1. Key Terms	Description
Gelatinisation	The scientific process of a sauce thickening by flour
Starch Granules	Starch Granules are found in flour and enable a sauce to thicken by absorbing liquid and bursting
Al Dente	' French term meaning 'to the tooth, ' used when cooking pasta to ensure it isn't over or under cooked but slightly chewy
Fermentation	The scientific process used when yeast ferments to produce carbon dioxide which helps the bread rise
Activate	Yeast needs food, warmth, moisture and time to become active and react, creating carbon dioxide for the bread to rise
Knead	Skill used to stretch the gluten in the bread
Prove	Skill used to allow the bread to rest and rise
Gluten Network	During kneading the dough is stretched, the gluten inside the flour causes the dough to stretch

## 2. Gelatinisation

During the thickening process of making a flour-based sauce gelatinisation occurs. The process of gelatinisation starts at 60°, the sauce begins to thicken at about 85° but it's not fully completed until it reaches 100°. During heating, the starch grains swell to more than five times their normal size



## 3. Functions of Bread Ingredients

Strong

plain

flour

Yeast

Warm

Water

Salt

Suaar

dough

as food

gives flavour

Sugar helps activate the yeast

## 4. Bread as a staple food

Bread is a staple food, Strong plain flour contains more meaning it gluten which enablers the bread is often a to become stretchy holding the large part of carbon dioxide and rising a meal and is cheap. Bread Yeast ferments releasing is served carbon dioxide which is needed around the for the bread to rise world in many different Warm water activates the yeast with moisture and warmth as shapes, sizes well as making the flour form a and flavour. Salt helps the crust form and





## 5. Activating Yeast

Yeast needs four conditions to be activated:

- Warmth
- Food
- Moisture
- Time

The yeast will become activated releasing carbon dioxide.

## 6. Links and further reading







Article:Bread in culture facts for kids https://is.gd/BreadinCulture

Revise:Mindmap Maker is.gd/mindmapmaker







## Year 8 Learning Cycle 2 Geography - Extreme Weather

1. Key Terms	Description
Heat wave	A prolonged period of abnormally hot weather
Drought	A prolonged period of abnormally low rainfall leading to a shortage of water.
Flooding	Occurs when a river bursts its banks and overflows onto the surrounding land
Flash flood	A sudden localised flood due to a heavy period of rainfall.
Wild or bush fire	Is an uncontrolled fire that burns in the wildland vegetation, often in rural areas.
Tropical storm	Is a hazard that brings heavy rainfall, strong winds and other related hazards such as mudslides and floods.
Monsoon	A seasonal prevailing wind in the region of South and SE Asia, blowing from the south-west between May and September and bringing rain (the wet monsoon ), or from the north-east between October and April (the dry monsoon ).

## 2. UK Heatwave 2023

#### **Facts and Figures**

July 26, Faversham in Kent saw temperatures reach 35.3C

#### Causes

Jet stream usually high, bringing warmer air from the South from areas such as Spain.

•

#### Impacts

- Fatalities and health issues such as heat stroke and exhaustion.
- Transport disruption, road surfaces melted, and rail lines deformed.
- Crop failures.
- Boosted the UK tourism industry.

#### Management

- Hose pipe bans
- Social workers and councils on alert to watch out for elderly and young.
- Advise about staying well on News stations.

## 3. Causes of Greece's wildfires 2023

There are many ways fires can hurt you. The first is getting caught by the flames. With fast winds and dry plants, a fire can spread faster than you can run from it. Burns are the biggest killer. Heatstroke and dehydration pose a particular problem for firefighters. Many things can spark a wildfire: campfires, cigarettes, lightning, even sunlight. But how far it spreads depends on the weather.

By burning fossil fuels and destroying nature, people have heated the planet by 1.2C – and Europe by 2C – above pre-industrial levels, making the hot, dry conditions in which wildfires thrive more common across the continent.

## 4. Tropical storm distribution



## Year 8 Learning Cycle 2 Geography

## 1. Formation of tropical storms

## Formation of Tropical Storms

- The sun's rays heats large areas of ocean in the summer and autumn. This causes warm, moist air to rise over the particular spots
   Once the temperature is 27<sup>0</sup>, the rising warm moist air leads to a low pressure. This eventually turns into a thunderstorm. This causes air to be sucked in from the trade winds.
   With trade winds blowing in the opposite direction and the rotation of earth involved (Coriolis effect), the thunderstorm will eventually start to spin
   When the storm begins to spin faster than 74mph, a tropical storm (such as a hurricane) is officially born
   With the tropical storm growing in power, more cool air sinks in the centre of the storm, creating calm, clear condition called the eye of the storm
- 6 When the tropical storm hits land, it loses its energy source (the warm ocean) and it begins to lose strength. Eventually it will 'blow itself out'

## How tropical storms are formed

High humidity and ocean temperatures of over 26°C are major contributing factors

Water evaporates from the ocean surface and comes into contact with a mass of cold air, forming clouds

A column of low pressure develops at the centre. Winds form around the column As pressure in the central column (the eye) weakens, the **speed** of the wind around it increases



## 2. Hurricane Katrina

Hurricane Katrina, tropical cyclone that struck the southeastern United States in late August 2005. The hurricane and its aftermath claimed more than 1,800 lives, and it ranked as the costliest natural disaster in U.S. history.





Over 1 million people were told to evacuate for Hurricane Katrina

On August 28, as the storm grew in size, people on the Gulf Coast were told to evacuate. State and local governments did not have enough resources to evacuate everyone and handle the displacement of so many people. Over 1 million people were told to evacuate the Gulf Coast.

Over 1000 people died from Hurricane Katrina

The saddest of all Hurricane Katrina facts is that over 1800 people lost their lives as a result of the storm. Most of these deaths were in Louisiana, where over 1500 people died because of the storm.

## Year 8 Learning Cycle 2 Geography - Deserts

1. Key Terms	Description
Abiotic	Non-living elements of an ecosystem, such as climate, temperature, water, and soil type
Adaptation	A feature of an organism's body which helps it to survive
Biotic	Living elements of an ecosystem, such as plants and animals
Climate change	The long-term alteration of weather patterns
Desertification	The spread of desert conditions in arid regions due to human activities, drought or climate change
Species	A type of organism that is the basic unit of classification. Individuals of different species are not able to interbreed successfully.

### 2. Plant adaptations

Small leaves - these ensure that less water is lost from the plant by transpiration because the leaf has a smaller surface area.



Tap roots - these are long roots (7-10 metres long) that reach deep under the ground to access water supplies. The tap roots are much longer and bigger than the plant.

Spines - some plants have spines instead of leaves, e.g. cactuses. Spines lose less water than leaves so are very efficient in a hot climate. Spines also prevent animals from eating the plant.

Waxy skin - some leaves have a thick, waxy skin on their surface. This reduces water loss by transpiration.

Water storage - some plants, known as succulents, store water in their stems, leaves, roots or even fruits. Plants which store water in their leaves and stems also have a thick waxy skin so that they lose less water by transpiration.

## 3. Development challenges in hot deserts

Agriculture - Large-scale irrigation means that desert areas can be farmed. Crops include dates & figs.

Energy production - The clear skies and high levels of solar energy in deserts are ideal for generating electricity.

Mining - Large oil and gas reserves are often found in desert regions, e.g., Saudi Arabia has the second largest proven oil reserves in the world

Tourism - Many desert countries are now using the landscape to generate income from tourists. Activities include camel rides, dune buggy trips and sandboarding.

### 4. Polar biome characteristics

Polar biomes are areas close to the North and South Pole that have long, cold winters. Average temperatures are mostly below freezing. Very little rain falls. Small plants, such as mosses can survive the harsh conditions.

Antarctica's seasons are opposite to the seasons that we're familiar with in the UK. Antarctic summers happen at the same time as UK winters. This is because Antarctica is in the Southern Hemisphere, which faces the Sun during our winter time.

### 5. Plant and animal adaptations

Some animal species have adapted to survive the hostile conditions in Antarctica. For example, penguins have flippers to help them to swim and feathers to trap warm air close to their bodies. Plant species such as lichen and mosses grow, particularly around coastal



regions. The ocean contains a range of life, including krill and whales.

### 6. How can we protect Antarctica?

The Antarctic Treaty effectively stops nations from making territorial claims or from exploiting Antarctic resources.

The Antarctic Treaty was negotiated by 12 countries in 1959: Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, UK, USA and USSR.

The fundamental aim of the Antarctic Treaty is that Antarctica "shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord"

## Year 8 Learning Cycle 2 History - What were peoples' experiences of the British?

				nemire				
1600 – The 1607 – First Formation of the permanent settlement East India Company. of Americas at Jamestown.	1770 – James Cook claims the East coast of Australia for Britain.	1775-1783 – American War of Independence	1787 – First shipment of prisoners to Australia.	1857 — India comes under the control of Britain	1876 – Queen Victoria is named the 'Empress of India.'	Post 1918: Attitudes towards imperialism begin to change.	1947 - India gains independence.	1957 - Ghana becomes the first African country to gains independence from Britian.

# 1. Key Terms Description Empire A large group of states or countries under the control of a single power

	power
Colony	A country or area under the full or partial political control of another country (a country that is part of an Empire) and people from the Empire live there
Colonist	Someone from the controlling country of an Empire who then settles in another country which is part of the Empire. E.g. People who moved from Britain to settle in Australia were colonists
Indigenous	The people (and animals/plants) who are native to a country or place
Exploit	To make full use of and get a benefit from something
Raw materials	The basic material from which a product is made. e,g, cotton, gold
Sepoy	An Indian soldier serving under the British Army
Independence	To gain freedom from outside control, to be able to do things for oneself
Decolonisation	The action or process of a state leaving a former colony, leaving it independent. E.g. Britain leaving India in 1947



Map to show the control of the British Empire at its height

## 2. Basic knowledge

Question	Answer
1. Where was the first successful British colony?	Jamestown (America), 1607
2. What was the 'Scramble for Africa'?	European countries fighting to control countries in Africa
3. How much of the continent of Africa was controlled by the British?	At its height 30% of Africa was under British control
4. Why did Europe want control in Africa?	Access to raw materials like; gold, rubber, diamonds, silver etc.
5. Who was James Cook?	British explorer and naval officer famous for his three voyages between 1768 and 1779 in the Pacific Ocean and to New Zealand and Australia in particular
6. Who were the indigenous people of Australia?	Aboriginals
7. What company initially gained control of India?	The East India Company
8. What happened to India in 1857?	It was now ruled by Britain (British Raj)
9. What was the Indian Mutiny, 1857?	Sepoy Mutiny/Rebellion was a major uprising in India in 1857–58 against the rule of the British East India Company when the sepoys (Indian soldiers serving under British) sparked by the soldiers being asked to use paper cases for their gunpowder which had grease used rumoured to include beef (offensive to Hindus) and pork (offensive to Muslims).
10. Who led the independence movement in India?	Mohandas Gandhi

## Year 8 Learning Cycle 2 History - How far have we achieved mutual respect and tolerance?

1. Key Terms	Description
Prejudice	A pre-judged opinion on someone or a group of people that is not based on reason or actual experience
Racism	Prejudice or discrimination against a person or people based on their membership in a particular racial or ethnic group
Anti-Semitism	Persecution of a person/group of people because they are Jewish
Empire	A large group of states or countries under the control of a single power
Famine	A widespread scarcity of food (people starving because of lack of food)
Home Rule	Power to rule your own country/area
Sinn Fein	Irish Republican Party, its aim is to end British rule in Ireland
SS Empire Windrush	Passenger liner and cruise ship that was used to bring people to Britain after WWII to work and rebuild
Equality	The state of being equal



Empire Windrush arrivals in 1948







Immigrant Jews in the transit shed at Tilbury (c. 1891).

### 2. Basic knowledge

Question	Answer
1 What is a pogrom?	An anti-Jewish riot. Usually carried out by townspeople but often encouraged and supported by governments and police
2 How did Jewish people try to escape these in the 1800s?	They often fled to other parts of Europe. Many settled in London, particularly Whitechapel
3 What was the Potato Famine?	This was caused by a mould which destroyed the potato crops in the 1840s. Something most of the population relied on for survival. It led to approx. 1 million deaths in Ireland.
4 What was a Fenian	A member of an Irish nationalist secret society (in Ireland, USA and Britain) during the 1860s. The name comes from the Fianna Eireann, a legendary band of Irish warriors.
5 What were the 'troubles'?	Period of violent conflict in Northern Ireland from around the 1968-1998. This was between Unionists (remain united with Britain) and Nationalists (Ireland should be it's own country again)
6 Why were people encouraged to come to Britain from the Empire after WWII?	The country needed rebuilding and the NHS needed staffing; there weren't enough workers in Britain to do this
7 Who were the people on the Empire Windrush?	Many people from the Caribbean (Jamaica in particular) who brought skills to Britain in the hope of achieving a bright future. Many had fought for Britain in WWII.
8 What is the 'Windrush Scandal?	In 2017 after it emerged that hundreds of Commonwealth citizens, many were from the 'Windrush' generation, had been wrongly detained, deported and denied legal rights. This is still an on going issue
9 What was the AIDS crisis?	A 'moral panic' in the 1980s over the transmission of the virus HIV, leading to the development of AIDS (acquired immune deficiency syndrome)
10 What is the Equality Act 2010?	A UK law that protects people from discrimination and promotes equality of opportunity

## Year 8 Learning Cycle 2 Music - Variations

1. Key Words	Definitions
Melody	The catchy tune that sticks in your head and makes a song memorable
Variation	Changing small bits of the music to keep it interesting, but still recognisable
Theme	The main idea or musical building block that the whole piece is based on
Variation Form	A musical structure where the main theme is repeated with changes each time
Duration	How long a sound lasts in music - think of it as musical time
Augmentation	Making the notes of a melody longer to give it a more majestic feel
Diminution	Making the notes of a melody shorter to make it sound faster or more playful
Ostinato	A repeating musical pattern that stays in the background while other things change
Ground Bass	A repeating bassline that stays the same while the melody above it changes
Minimalism	A style of music where simple musical ideas are repeated and slowly change over time

## 4. Tonality - Major and Minor

TONALITY refers to whether a THEME or MELODY is in a MAJOR or MINOR key. Changing the tonality from major to minor, or minor to major is one way of providing a variation of the theme of melody. Major and minor scales follow a certain pattern of tones and semitones.



## 2. Theme and Variations

A melody is a tune or succession of notes, varying in pitch, that have an organised and recognisable shape. Often called the main TUNE or THEME of a piece of music or song and easily remembered.

A variation is where a THEME is altered or changed musically, while retaining some of the primary elements, notes and structure of the original.

VARIATION FORM:



(Variation)

(Variation)

(Variation)

## 5. Variation Techniques

Pitch	Change the highness or lowness of the theme – play the same notes, but at different pitches
Tempo	Change the speed of the theme – play it faster or slower
Dynamics	Change the volume of the theme – play it louder or softer
Texture	Change the amount of sounds we hear – play as a solo or add an accompaniment, or chords
Timbre & Sonority	Change the sound of the theme and play it on a different instrument
Articulation	Change the way the theme is played – smoothly (LEGATO) or short and detached (STACCATO)
Pedal	A long (often very long!) note in the bass line of the music over which other parts are played
Drone	A long or series of repeated (often long) notes using the TONIC (1st) and the DOMINANT (5th) notes
Melodic Decoration	Adding in extra notes to the theme such as trills, turns, mordents (ornaments)
Ostinato	Adding a repeated musical pattern (rhythmic or melodic) to the main theme as a variation
Canon/ Round	A song or piece of music in which different performers sing the same theme starting one after the other
Ground Bass	A repeated musical pattern in the bass part upon which chords, and melodies can be performed over

## 3. Different Durations of Notes

When creating minimalism and 'theme and variation', we can use AUGMENTATION or DIMINUTION to alter our music and lengthen or shorten the notes we play.

AUGMENTATION is the process of doubling note values. DIMINUTION is the process of halving note values.



## 6. Links & Further Reading

Lesson: Theme & Variation in Music:
Definition, Form & Examples

is.gd/themeandvariationlesson



Lesson: Music Theory - Note Durations

is.gd/notedurations

Revise: Flash Card Maker is.gd/flashcardmaker





## Year 8 Learning Cycle 2 Religious Education - What is so radical about Jesus?

## 1. Prior knowledge to remember to access learning...

- Christians believe the Trinity is God: God the Father, God the Son and God the Holy Spirit
- The Christian holy book is the Bible. The Gospels (The first 4 books of the New Testament) contain the stories of the life of Jesus.
- Jesus, and his followers who became the first Christians, was Jewish and lived under the Roman Empire.

### 2. The key learning concept is...

What it means to be radical. To be radical means to go against what is considered acceptable by the majority, usually to change things for the better. Many people consider Jesus to have been radical, we are learning to understand why this is. Scan the QR code for a link to the BBC Bitesize Website



3. Key Words	Definitions	4.	What happened?	Key Quote	Why was this radical	How might readers of this tex
Roman Empire	The Empire under which Jesus, the Jewish and early Christians in the first century lived	Jesus eats with sinners and tax	Jesus eats a meal with tax collectors and other people who are considered sinners. The Pharisees (religious leaders) question why he has chosen to eat with them and not 'good' people.	'Healthy people don't need a doctor; sick people do'(Matthew 9:12)	People who were considered sinful were marginalised in Jesus' society. The Pharisees thought that they were more worthy of Jesus' time because they were the ones who were obeving the law.	Christians might interpret this to mean that they should help to support those people who are marginalised by society. Groups such as the Salvation Army work with offenders/addicts and others who might be considered 'sinners'.
Disciples	The followers of Jesus					
Sins	Actions which go against God's laws	collectors				
Marginalised	Margins means on the edge of something. Marginalised people or groups are those in society who are treated differently and aren't accepted	Jesus clears the temple courts	Before his death, Jesus goes to the Temple and sees moneylenders exchanging money and people selling animals for sacrifices. He made a whip out of cords and drove	'So he made a whip out of cords, and drove all from the temple courts'(John 2:15)	This is Jesus' only act of violence in the Bible. To cause destruction in the Temple, which was considered the dwelling place of God, would have been	Some Christians might interpret this to mean that people shouldn't exploit others financially. It might also mean that Jesus didn't think the sacrifices at the temple were
Anointed	To make someone holy as part of a religious ceremony, by applying oil		out the people and overturned the tables.		almost unthinkable.	necessary anymore.
Pharisees	A group of Jewish leaders at the time of Jesus who were well respected in society	Jesus saves a woman	The Pharisees bring a woman to Jesus who has been accused of adultery and ask Jesus whether he will fulfil the Jewish law and have her stoned. Jesus tells them that they can stone her if they themselves are free from sin. When they realise they are not, they all leave.	'Let any one of you who is without sin be the first to throw a stone at her'(John 8:7)	The law of the time said that the punishment for adultery was stoning, so Jesus was going against the Jewish teaching by refusing to allow this. The society was also very patriarchal and women had very few rights, so to support women's rights was extremely and is a stremely	We might read this text to mean that Christians should treat women equally to men. It also teaches Christians that they should not judge others and that only God has the right to do this.
Messiah	Literally means anointed one. Christians believe that Jesus was the Messiah – the chosen saviour	from being stoned				
Hypocrite	A person who acts in a way that goes against the beliefs or values they claim they have	Jesus	s Jesus accuses the Pharisees of being hypocrites. His message is that they are too concerned with what people think about them, and perform their religious ers duties for show, rather than	'So obey everything they teach you, but don't do as they do. After all, they say one thing and do something else.'	The religious leaders thought they were obeying the Jewish law perfectly. For Jesus to accuse them of being hypocrites would have angered them significantly since they believed	This might remind Christians today that religious acts are meaningless if they don't reflect what a person truly believes. It teaches Christians to keep faith at the core of their
Incarnate	In human form. Christians believe that Jesus is God incarnate	the religious leaders				
Parable	A story told by Jesus to help people to understand his message		having faith and caring about what matters.	(Matthew 23: 3)	they were beyond criticism.	lives, not just ceremony and rituals.

## Year 8 Learning Cycle 2 Spanish

## 1. Topic vocabulary

Mis pasatiempos	My hobbies
Normalmente juego	Normally I play
al baloncesto	Basketball
A menudo hago	Sometimes I do/go
la natación	Swimming
También después del cole	Also after school
Escucho música	I listen to music
Bailo	l dance
Visito a mis abuelos	l visit my grandparents
Saco fotos	I take photos
Leo novelas	l read novels
Veo películas	l watch films
La frecuencia	Frequency
Todos los días	Every day
Una vez al mes	Once a month
Dos veces a la semana	Twice a week
A menudo	Often
Raras veces	Rarely
Antes de comer	Before eating
Después de comer	After eating
Describe la foto	Describe the photo
En la foto hay	In the photo there is / are
Se puede ver	You can see
Veo	l see
Lleva	He/she is wearing
llevan	They are wearing
Está / Están en	He/she is / they are in
Hace sol / frio / calor	It is sunny / cold / hot
En el fondo	In the background
En primer plano	In the foreground
A la derecha	On the right
A la izquierda	On the left

## 2. Key Questions

¿Qué haces normalemente en tu tiempo libre? ¿Qué hiciste el fin de semana pasado? ¿Qué vas a hacer el próximo fin de semana? ¿Qué tipo de programa prefieres? Describe tu peli favorita. ¿Te gusta la música latina?

### 3. Preterite tense

El pretértito - The prete	rite (past) ter	nse	
Chop and swap			
Remove the ar / er / ir and add the ending		AR	ER / IR
bailar = bailé= l played	I	é	í
Comer = comí = l ate	Υου	aste	iste
	He / She	ó	ió
	We	amos	imos
	You (pl)	astéis	istéis
	They	aron	ieron

¿Qué hiciste?	What did you do?
ayer	Yesterday
Anteayer	The day before yesterday
La semana pasada	Last week
El fin de semana pasada	Last weekend
El lunes pasado	Last Monday
jugué al	l played
hice	l did (+ non-ball sport)
fui a	I went to (+place)
vi	I saw / watched
tuve	l had
fue	lt was
me divertí	I had fun
penséque	I thought that
no me gustó	I didn't like it

## 4. Opinions and WOW phrases

Creo que	I believe that
Pienso que	I think that
Supongo que	I suppose that
Mi pasión es	My passion is
dado que	Because
lo bueno de	The good thing about
lo malo de	The bad thing about
lo mejor	The best thing
lo peor	The worst thing
a mi juicio	In my opinion
diría que	I would say that
no solosino también	Not only but also
me interesa	I am interested in (one thing)
me interesan	I am interested in (+ plural)

## 5. Further Reading

zg9mhyc/articles/z63n7nb

### The present tense: https://www.bbc.co.uk/bitesize/topics/





The preterite tense: https://www.bbc.co.uk/bitesize/guides/ zhwgmfr/revision/1

Using infinitives to talk about now and the future:

https://www.bbc.co.uk/bitesize/topics/ zg9mhyc/articles/zf9bhbk



Talking about freetime: https://www.bbc.co.uk/bitesize/topics/

zfgt6v4/articles/z6vpqp3

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