

Year 8 Homework Booklet

Learning Cycle 3



THE
KING ALFRED
SCHOOL
An Academy

*“Knowledge is power.
Information is liberating.
Education is the premise of
progress, in every society,
in every family”*

Nelson Mandela

Name

Tutor

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Homework Timetable

It is expected that you complete one full page in your workbook as a minimum. Students should spend around 20 minutes on homework for each subject. Tutors will check your Knowledge Organiser homework during Tutor Time. They will be looking for a full page of work on the correct subjects of the Knowledge Organiser completed with no gaps, as well as for purple pen ticks/corrections and good presentation. Your writing needs to be neat and legible with H/W, Title and Date underlined with a ruler at the top of the page. If your tutor feels that any of these elements are not up to standard, your tutor will enter you for a homework support session that same day.

In addition to the timetable below students should also complete 30 minutes per week using online Sparx Maths.

	WEEK 1	WEEK 2
Monday	Online Maths Drama	Music Religious Studies
Tuesday	English History	Computing PE
Wednesday		
Thursday	Science French & Spanish	Science Design Technology
Friday	Art Maths	English Geography



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Your Homework Booklet

Learning Cycle 3

This is your homework booklet, in your homework booklet you will find a knowledge organiser for each subject that you are going to study in learning cycle 3, these are a summary of the most important pieces of information that you need to know.

You will be expected to learn all this information and complete activities in your workbook.

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Your Homework Booklet

At TKASA, we place a great emphasis on the importance of reading in order to accelerate the development of your vocabulary and fluency in communication. Not only that, a good book will teach you more about the world around you and help you empathise with others. We recommend a minimum of 20 minutes of reading per day. Have a look at the reading list below for some inspiration

The Hunger Games

Suzanne Collins

Northern Lights

Philip Pullman

The Fault in Our Stars

John Green

The Lord of the Rings

J. R. R. Tolkien

Twilight

Stephenie Meyer

To Kill a Mocking Bird

Harper Lee

When Hitler Stole Pink Rabbit

Judith Kerr

Maggot Moon

Sally Gardner

Shug

Jenny Han

Jane Eyre

Charlotte Brontë

A Street Cat Named Bob

James Bowen

Stargirl

Jerry Spinelli

Roll of Thunder Hear My Cry

Mildred D. Taylor

Swallows and Amazons

Arthur Ransome

The Wheel of Surya

Jamila Gavin

The Earthsea Quartet

Ursula K. Le Guin

Never Say Die

Anthony Horowitz

Treasure Island

Robert Louis Stevenson

Fly-By-Night

Frances Hardinge

Mortal Engines

Philip Reeve

Geek Girl

Holly Smale

Flour Babies

Anne Fine

My Family and Other Animals

Gerald Durrell

Holes

Louis Sachar

Cirque Du Freak

Darren Shan

Cow Girl

G R Gemin

The Girl Who Drank the Moon

Kelly Barnhill



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Knowledge Quiz

Your teacher will quiz you on your knowledge organiser 3 times each learning cycle to check how well you are doing your homework.

The 'Mark' box must be used to record your score from each quiz.

	Maths	English	Science	Geography
QUIZ 1	/	/	/	/
QUIZ 2	/	/	/	/
QUIZ 3	/	/	/	/

	History	MFL	Drama	Music	PE
QUIZ 1	/	/	/	/	/
QUIZ 2	/	/	/	/	/
QUIZ 3	/	/	/	/	/

	Art	DT	Comp	RS
QUIZ 1	/	/	/	/
QUIZ 2	/	/	/	/
QUIZ 3	/	/	/	/

Learning Cycle 3



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Learning Cycle 3

Online Maths Work

Learning Cycle 2	Topic practised	Signed by parent	Signed by Maths Teacher
Week 1			
Week 2			
Week 3			
Week 4			
Week 5			
Week 6			
Week 7			
Week 8			
Week 9			



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How to use your knowledge organiser for homework

The Knowledge Organisers are designed to help you learn a wide range of knowledge which in turn will mean you are more prepared for your lessons as well as the new style GCSEs that you will sit in the future.

For homework you should use your knowledge organiser to complete one of our accepted strategies in your workbook you should either

- **Write**
- **Mind Map**
- **Transform**

Do not just copy into your workbook!

Here are some tips on how you can use your workbook

Your tutor will check your workbook each week



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Look, cover Write, check, Correct

First

Look through and read the information on a section of your knowledge organiser



Then

Cover the section so you can no longer see the information

Cycle 1 in History will focus on: An introduction to studying history, a depth study enquiry called *why did William win the Battle of Hastings?* and a short enquiry into why the Church was so important in medieval times.


Key Words and Definitions	
Chronology	The order in which events happened
Primary Source	Something from the time being studied for example if you were studying The Battle of Hastings a shield from the Saxon shield Wall would be primary source
Interpretation	A view of the past created from primary sources e.g. a museum exhibition about the Battle of Hastings is an interpretation.
Cause	A reason why something happened
Consequence	A result of an event or change
Significance	A measure of how much impact an event, person or change has had.
Saxon	Most of the English people before 1066
Norman	People from Normandy, France e.g. William the Conqueror
Tactics	A planned action to help you achieve success
Cavalry	Soldiers on horseback
Infantry	Soldiers on foot
The Church	Christian organisation led by the Pope. England was a catholic country until the 16th century

Topic 1 What is History?

History is finding out about the past by using the evidence that has been left behind. It is also about asking questions and sorting out answers. In history we also look at how why interpretations are created

Here are the different **time periods** we use to divide up British History:

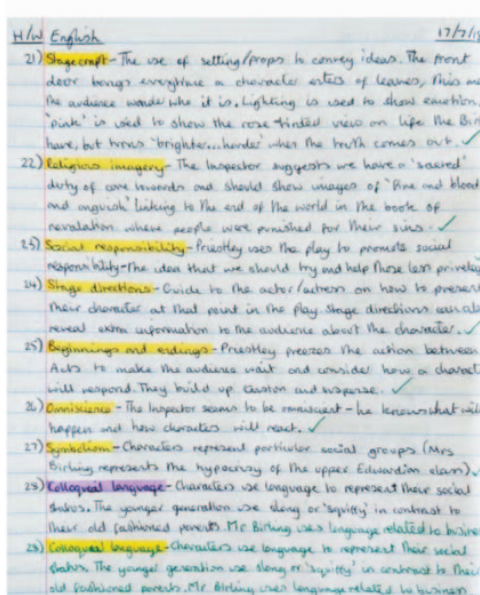
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1603 - 1714	Stuart Britain
1714 - 1837	Georgian Britain
1837 - 1901	Victorian Britain
1901 - 1910	Edwardian Britain



The five ways a historian can measure significance

- 1 Did the person or event **matter to the people at the time?**
- 2 Did the person or event **affect a large number or a small but important group of people?**
- 3 Did the person or event **cause change** and if so, **how great was the change?**
- 4 Was the change **long lasting or short term?**
- 5 Is the person or event **still seen as important today?**

Interpretations are versions of history. Authors, film makers, and museum designers are all producers of interpretations. There are different interpretations of the same event or person.



Next

Try and write out the key definitions or facts that you need to know

Now

Uncover the section of your knowledge organiser and check how correct you were

Finally

Correct anything that you wrote down that was incorrect

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The five ways a historian can measure significance

- 1 Did the person or event **matter to the people at the time**?
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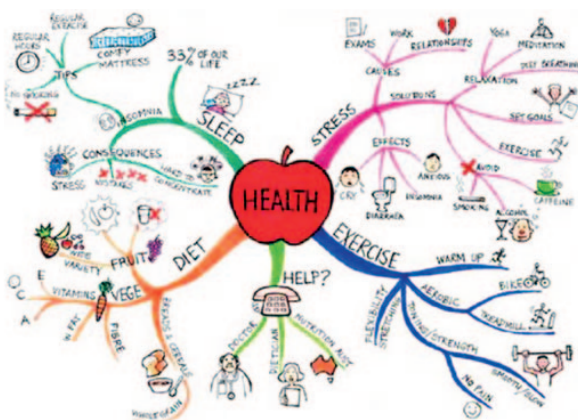
History

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Next

Create a mind map that maps out everything from your knowledge organiser using keywords, colour and images



Now

Uncover the section of your knowledge organiser and check how correct you were

Finally

Correct anything that you wrote down that was incorrect

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Learning Cycle 3

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Kings	Play	Chess	On	Fine	Glass	Sets
K	P	C	F	K	G	S
I	H	L	A	I	E	P
N	Y	A	M	N	N	E
G	L	S	I	G	U	C
D	U	S	L	D	S	I
O	M		Y	O		E
M				M		S

Next

Transform the information on the knowledge organiser into either a mnemonic or series of images

Now

Uncover the section of your knowledge organiser and check how correct you were

Finally

Correct anything that you wrote down that was incorrect

WHY SKETCHNOTES

- SIMPLIFIES THE COMPLEX
- Visual METAPHORS allow brain to fill gaps
- ENABLES CONNECTION and synthesis OF IDEAS
- raises ATTENTION and ENGAGEMENT
- organizes and SUMMARIZES insights
- A TOOL FOR IMMERSIVE LEARNING
- eases CLARITY and comprehension
- HELPS IN SENSE MAKING
- QUICK GRASP and memory BETTER RETENTION
- EASY sharing & COMMUNICATION

STATISTICS: TEXT 10%, PICTURE 35%, SPEAK 55%

JOHN MEDINA 'BRAIN RULES'

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HOW BEDROCK WORKS

Bedrock Vocabulary is an online programme that teaches you the academic words you need to succeed at school and beyond, while encouraging reading, boosting literacy, and improving learning outcomes across the curriculum.

Bedrock is self-marking and adapts to your individual needs, making it easy for you to use independently.

Once per fortnight, you will have a Bedrock lesson in school.

Once per fortnight, complete at least one lesson at home as part of your English homework. Record the topic you completed and any test scores in your homework book.

My Bedrock timetable

My English library Bedrock lesson is on:

I will complete my Bedrock homework on:

1. To log in, go to <https://app.bedrocklearning.org/> on any device.
2. Make sure the Student tab is selected.
3. Enter your username and password.
4. Click Learn!

Username:

Password:

Access Code:

Dear Parents,

You can also register for an account to monitor your child's progress.

Make your parent account

1. Go to <https://app.bedrocklearning.org/>
2. Click the Parent/teacher tab.
3. Click Parent sign up.
4. Enter your child's last name, access code, and your details. The access code is provided by your child's school, and allows you to link your account with your child's. Bedrock can't issue access codes - only your child's school.
5. You'll be sent an email containing your username. Click the link in the email.
6. Click the orange Show password button. Make sure you remember your username and password, as you'll need them each time you log in.

Log in

1. Go to <https://app.bedrocklearning.org/>
2. Click the Parent/teacher tab.
3. Enter your username and password and click Login.

Maths

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Cycle 3 in **Maths** will look at numbers written in index form and you will be confident in evaluating indices as well as simplifying using index laws. You will look at standard form and how this can be used to write numbers that are big or small and when it is used in context. Lastly, you will investigate angles in parallel lines and look at the special angles that are formed then a line crosses a pair of parallel lines.

Key words and definitions	
index (if plural indices)	the small number written to the top right of a number, it tells you how many times the number is multiplied by itself e.g. $2^4 = 2 \times 2 \times 2 \times 2$
standard form	a method of writing numbers in the form $a \times 10^n$ where a has to be bigger or equal to one and less than 10
evaluate	find the value of
simplify	collect like terms together
exponent	powers/indices
square	when you times a number by itself 5 squared = $5 \times 5 = 25$
cube	when you times a number by itself and then by itself again 4 cubed = $4 \times 4 \times 4 = 64$
square root	a number that gives the required value when multiplied by itself
cube root	a number that gives the required value when it is cubed

You need to make sure that the base numbers/letters are the same.

Topic 1
To use index laws to simplify and evaluate indices



In 8^2 the '2' says to use 8 twice in a multiplication, so $8^2 = 8 \times 8 = 64$

Index Form	Meaning	Answer
2^4	$2 \times 2 \times 2 \times 2$	16
2^3	$2 \times 2 \times 2$	8
2^2	2×2	4
2^1	2	2

Simplify: $5 \times 5 \times 5 = 5^3$

Evaluate: $5 \times 5 \times 5 = 125$

FOUR easy rules:

When **multiplying**, you add the powers e.g. $3^2 \times 3^7 = 3^9$

When **dividing**, you subtract the powers e.g. $3^{10} \div 3^7 = 3^3$

When **raising one power to another**, you multiply the powers. e.g. $(3^4)^2 = 3^8$

Maths

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Topic 2

To be able to write numbers in and out of standard form

It is difficult to read numbers like 12345678900000 or 0.00000002345678. To make it easy to read very large and small numbers, we write them in standard form.

A number written in standard form must always be written in this form:

A number between 1 and 10

$$A \times 10^n$$

$\times 10^n$, this just means how many times to multiply or divide by 10

Write these in standard form:

- $3600 = 3.6 \times 10^3$
- $560 = 5.6 \times 10^2$
- $0.00005 = 5 \times 10^{-5}$
- $0.0000000589 = 5.89 \times 10^{-8}$

Topic 3

To be able to find angles in parallel lines

When a line crosses a pair of parallel lines it forms special sets of angles

ALTERNATE ANGLES



Alternate angles are the same. They are found in a Z-shape.

CORRESPONDING ANGLES



Corresponding angles are the same. They are found in an F-shape.

Standard form can be used in real life to look at the mass of planets and their distance from the sun.

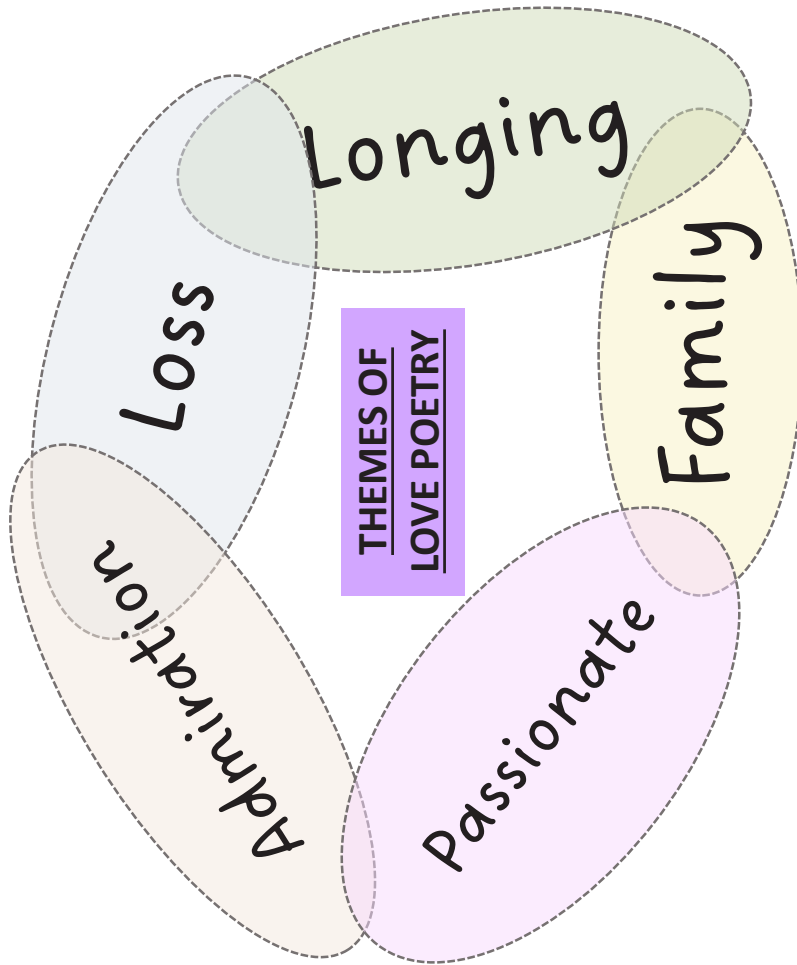
Planet	Distance from Sun (km)	Mass (kg)
Mercury	5.8×10^7	3.3×10^{23}
Venus	1.1×10^8	4.9×10^{24}
Earth	1.5×10^8	6×10^{24}
Mars	2.3×10^8	3.3×10^{23}
Jupiter	7.8×10^8	1.9×10^{27}
Saturn	1.4×10^9	5.7×10^{26}
Uranus	2.8×10^9	8.669×10^{25}
Neptune	4.5×10^9	1×10^{26}
Pluto	5.8×10^9	1×10^{22}

Key words and Definitions

estimate	to make an approximate calculation, often based on rounding
acute	an angle measuring less than 90 degrees
obtuse	any angle between 90° and 180°
reflex	any angle between 180° and 360°
perpendicular	at right angles to the horizon or another object
parallel	lines that are always an equal distance apart
congruent	having the same shape and the same size
quadrilateral	a polygon with four angles and four sides
pPolygon	a plane shape having three or more straight sides

Love Poetry

Cycle 3 in English will focus on studying a selection of poetry under the theme of Love and Relationships. You will develop your understanding and ability to interpret and engage with a range of poetry from different time periods and cultures. You will also develop your comparative writing skills.



PUNCTUATION

	How to use	Examples of use
Ellipsis	<ul style="list-style-type: none"> To create a pause. To show something has been intentionally left out. 	<p>“She stood there and watch him leave; she’d never know what could have been...”</p> <p>“As he let go of the rope, he smiled...”</p>

CONTEXT: Poets

PERCY BYSSHE SHELLEY (1792 – 1822)

An English poet from the Romantic movement.
Poem we will study: Love’s Philosophy

SEAMUS HEANEY (1939 – 2013)

An Irish poet. Won the Nobel Prize for Literature in 1995.
Poem we will study: Follower

SIMON ARMITAGE (1963 – present)

An English poet. Currently Poet Laureate.
Poem we will study: Mother, Any Distance

C. DAY LEWIS (1904 – 1972)

Anglo-Irish poet and previous Poet Laureate.
Poem we will study: Walking Away

ANDREW WATERHOUSE (1958 – 2001)

An English poet who wrote about Northern culture.
Poem we will study: Climbing My Grandfather

DALJIT NAGRA (1966 – present)

A British poet who writes about his Indian culture.
Poem we will study: Singh Song!

WILLIAM SHAKESPEARE (1564 – 1616)

An English poet and playwright.
Poem we will study: Sonnet 130

GILLIAN CLARK (1937 – present)

A Welsh poet. She is the National Poet of Wales.
Poem we study: Catrin

KEY TERMINOLOGY

Caesura	A natural pause or break in a line of poetry, usually near the middle of the line
Enjambment	Where there is no punctuation at the end of a line of poetry, so you keep reading onto the next line.
Meter	The beat or rhythm of a poem.
Free Verse	A poem which has no regular meter or rhyme scheme.
Blank Verse	Poetry written with regular meter but has no rhyme scheme.
Rhyme	Similar sounds at the end of two or more words. Look for a pattern within the poem. You indicate a rhyme scheme through letters, i.e. abab or aabba.
Rhyming Couplet	Where the rhyme matches in a pair of lines: aabbcc
Internal Rhyme	The occurrence of rhyme within lines not just at the end.
Stanza	The word for a verse or paragraph of a poem.
Sibilance	A collection of “-s” sounds anywhere within a collection of words that create calm.
Plosive	Specific constants (-b/-d/-g/-k/-p/-t) within a collection of words. They are powerful sounds.
Assonance	The repetition or a pattern of vowel sounds.
Speaker	The voice of the poem, similar to the narrator in fiction.
Title	The name of a poem.

KEY VOCABULARY: Discourse Markers to show comparison

To show similarity	To show contrast
Likewise	However
Also	Whereas
Equally	Conversely
Similarly	On the other hand
In the same way	Alternatively

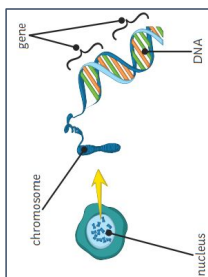


EXPLORE MORE:

- William Wordsworth
 - Carol Ann Duffy
 - Emily Dickinson
 - Lord Byron
 - John Donne
 - Elizabeth Barrett Browning
- or**
- YOU!

Key concept- Variation

Variation	Differences in characteristics of individuals in a population.
Allele	An alternative form of a gene.
Chromosome	Structures that contain the DNA of an organism and are found in the nucleus.
Gene	A small section of DNA that codes for a specific protein.
DNA	A polymer that is made up of two strands that form a double helix.



Variation

Variation is all the differences that exist in a population of the same species. These differences are caused by:

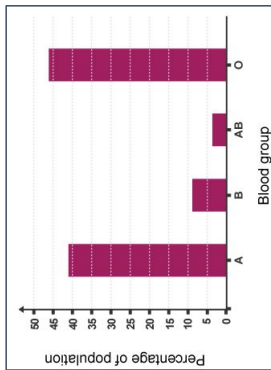
- **Genetic variation** - these are differences between individuals that are inherited from parents, such as the colour of your eyes, hair and skin.
- **Environmental variation** - these are differences between individuals that are not inherited but caused by the environment that the organism lives in, including scars and tattoos.
- **Genetic and environmental variation** - differences between individuals that are caused by both genetic and environmental factors, such as height and weight.

Discontinuous variation

Surveys of **discontinuous variation** give us values that come in groups rather than a range. Human blood groups are an example of discontinuous variation. In the ABO blood group system, only four blood groups are possible - A, B, AB or O. You cannot have a blood group in between these four groups, so this is discontinuous variation.

Here are some examples:

- blood group
- eye colour

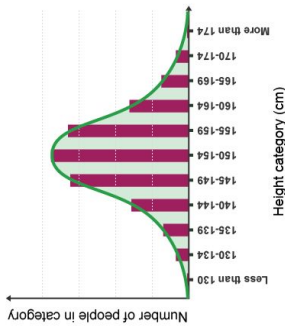


Continuous variation

Surveys of **continuous variation** give us results that come in a range. Human height is an example of continuous variation. It ranges from that of the shortest person in the world to that of the tallest person. Any height is possible between these values, so this is continuous variation. For example, you can be 150 cm tall, 151 cm tall, or any height in between this - if you had a ruler that could measure small enough values.

So, a characteristic that changes gradually over a range of values shows continuous variation. Examples of such characteristics are:

- height
- arm span
- weight



The picture shows variation within a species

Key concept- Fossil evidence

Fossils	The remains of organisms from millions of years ago which are found in rocks.
Evolution	A change in the inherited characteristics of a population, over time, through a process of natural selection.
Extinction	The permanent loss of all members of a species.
Natural selection	The process by which organisms that are better suited to an environment are more likely to survive and reproduce.
Selective breeding	Humans selecting animals or plants, that have a required characteristic, for breeding.



Fossils

Fossils could be:

- the actual remains of an organism that has not decayed;
 - mineralised forms of the harder parts of an organism, such as bones;
 - traces of organisms such as footprints or burrows.
- Many early life forms were soft-bodied so have left few traces behind.

Fossils help us understand how much or how little organisms have changed as life developed on earth.

Evolution

All species of living things have evolved from simple life forms by natural selection.

- If a variant/characteristic is advantageous in an environment then the individual will be better able to compete.
- This means they are more likely to survive and reproduce.
- Their offspring will inherit the advantageous allele.

Resistant Bacteria

To reduce the rate at which antibiotic resistant strains appear:

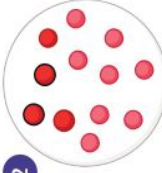
- Antibiotics should only be used when they are really needed, not for treating non-serious or viral infections.
- Patients should complete their courses of antibiotics, even if they start to feel better.
- The agricultural use of antibiotics should be restricted.

1



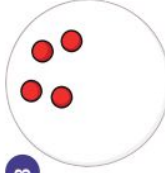
There is variation in the bacterial population. One bacterium develops a mutation by chance that means it is resistant to an antibiotic.

2



The antibiotic kills some of the bacteria, the resistant bacterium survives and reproduces.

3



The antibiotic kills the rest of the non-resistant bacteria so the person may start to feel a little better. The resistant bacterium has survived the antibiotic and continues to multiply.

Key concept- Resistance

Resistance in Electrical Circuits

What is resistance?

Measured in ohms, it is the opposition to the movement of electrical charge through a component...

...or, how difficult it is for electricity to flow through a part!

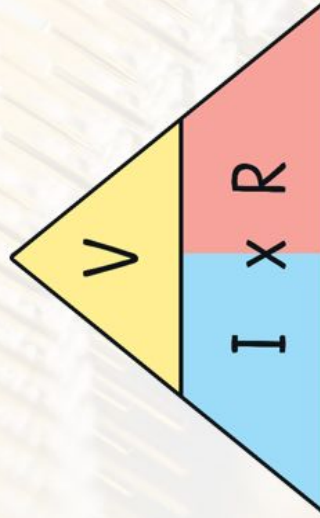


Ohm's Law

Ohm's Law tells us that: $V=IR$

where
 V =voltage (potential difference)
 I =current
 R =resistance

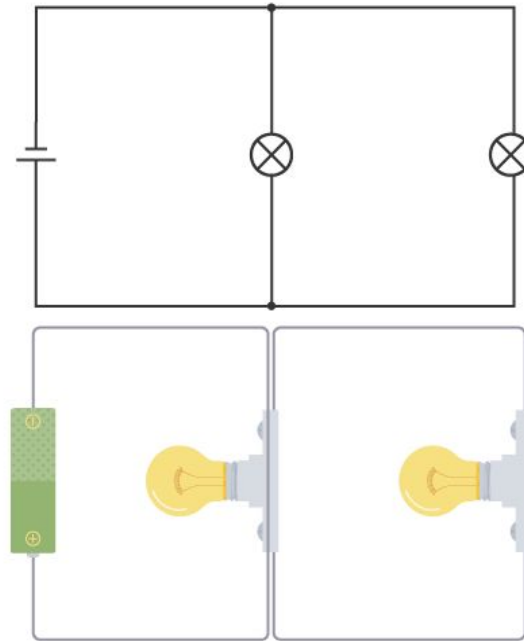
We can rearrange this to find any of the components.



Key concept- Parallel circuits

Connecting components in parallel

When we connect **components in parallel**, the components are connected on different branches of the circuit. There are two or more 'loops' and multiple paths for a **current** to flow.



This circuit and circuit diagram contain a cell and two lamps connected in parallel

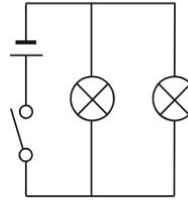
Current is the flow of charge around a circuit. The faster the charge flow, the higher the current.
Current is measured in **amps** using an **ammeter** (always in series).

The current is the same everywhere in a series circuit. It does not matter where you put the ammeter, it will give you the same reading.

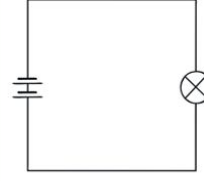
The current in a series circuit depends upon the number of cells. The more cells you add, the greater the current. Current is **not** used up.



What differences do you notice between a parallel and a series circuit?



In a parallel circuit, the components are connected side by side. This gives the current several different paths for it to flow around. If one bulb blows, the other bulbs will remain lit as the circuit is still complete.



In a series circuit, the components are connected end to end in a loop. If one bulb breaks, the whole circuit will go out and none of the bulbs will light as the circuit is no longer complete.

Year 8 Cycle 3 Knowledge Organiser

Cycle 3 in History follows on from your study of the Industrial Revolution. We pick up the narrative in 1888 when the social and economic consequences of industrialisation has caused slum dwellings and crime.

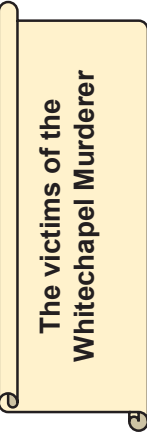
Key words and definitions

Whitechapel	an area of East London
prostitute	someone who has sex for money
immigrant	a person who comes to live permanently in a foreign country
poverty	the state of being extremely poor
slum	an area of very poor housing
census	an official count of the population which takes place every ten years in the UK
Abberline	Scotland Yard police detective
Tsar	Emperor of Russia
pogrom	organised attack on Jewish people
anti-Semitism	hatred of Jewish people
Lipiski	term used to insult Jewish people in 1888
The Star	popular newspaper from the 1880s
Jack the Ripper	an unidentified murderer who killed 5 women in Whitechapel in 1888
interpretation	A view of history, for example the 1988 Jack the Ripper film.
Marxist	someone who believes in a political idea based on revolutions and equality
Queen Victoria	Monarch of the UK 1837-1901
The Five	book written about the Ripper's victims
Metropolitan Police	Police force for the Greater London area but not the square mile of the city of London.

TIER 2 Vocabulary

debate = argue about something in a formal way

The victims of the Whitechapel Murderer



In 2019, Hallie Rubenhold wrote a book called 'THE FIVE'. This book, for the first time focussed on the untold stories of the lives of the victims of Jack the Ripper, rather than their deaths.

Who were the victims of Jack the Ripper?

Mary Ann Nichols (known as Polly): daughter of a blacksmith; grew up in the area where Dickens had imagined Fagin living; forced to live in a workhouse and on the streets when her marriage ended because of her husband's affairs; turned to alcohol and found herself homeless and penniless in the Autumn of 1888.

Annie Chapman: daughter of a soldier; grew up in Knightsbridge; could have been middle class if she had not turned to drink. Lived in Berkshire with her coachman husband until her family were turned out of their home.

Elizabeth Stride: daughter of a Swedish farmer; set up a coffee house in London but the business failed; became a domestic servant but contracted Syphilis. Ended her time on the streets of Whitechapel.

Catherine Eddowes: ran away from Wolverhampton and found a friend in Thomas Conway. Catherine was literate and wrote down the songs that Conway sang. They had matching tattoos and spent their summers hop picking in Kent. 500 family members attended her funeral!

Mary Kelly: she probably came from a good family but fell into the wrong hands when she left her home in Cardiff and made her way to London; at the time of her death, aged 25, she lived in Dorset Street, Whitechapel.

History

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Whitechapel in 1888

- There was little healthy drinking water and sewers ran into the streets.
- Houses were divided into apartments; some contained 30 people, sharing beds.
- There were over 200 lodging houses (doss houses) where 8,000 people lived. Two pence would buy you a place on a rope to sleep on; four pence would get you a bed.
- There were many Irish immigrants. Many did labouring jobs on canals, roads and railways. Some Irish nationalists, called Fenians wanted freedom from UK rule. Their terror campaign led to lots of anti-Irish and anti-Catholic feeling.
- In 1881, Tsar Alexander II of Russia was assassinated; a Jew was blamed. Violence (pogroms) against Jews in Russia made many leave. They came to London; in some parts of Whitechapel in 1888 the Jewish population was 95%.
- The Jews of Whitechapel were not liked by the local population. Locals were suspicious of their culture and resented their business successes.
- Marxist and Socialist groups became popular. They wanted a revolution to bring down the existing system. The downtrodden poor of Whitechapel listened to any ideas which they believed would improve their lives.
- In 1888 high unemployment and housing shortages created tension between the immigrant communities and the locals.

Crime in Whitechapel and Jack the Ripper

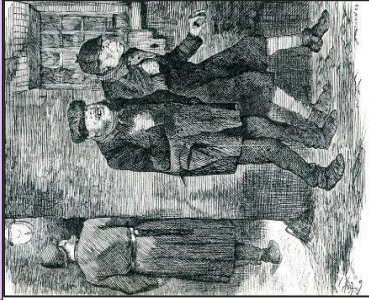
THE POLICE

- The Metropolitan police was split into 20 divisions. Each division looked after a district of London. 'H' Division policed Whitechapel.
- The police were unpopular and often attacked by gangs.
- Police were armed with a truncheon.
- Crimes in Whitechapel were linked to the poverty in the area.



TYPICAL CRIME IN WHITECHAPEL

- Theft and burglary
- Prostitution (in Brothels and on the streets)
- Alcohol – gin palaces
- Drugs – opium dens
- Tension between different nationalities
- Protection rackets – gangs demanding money from business owners
- Violent assaults
- Murder (rare)



THE WHITECHAPEL (JACK THE RIPPER) MURDERS

- Five women were murdered between August and November 1888.
- Inspector Abberline was in charge of the case.
- Newspaper reports of the murders sensationalised them.
- Immigrants were first to be blamed, particularly the Jewish community.
- Police methods to catch the killer: *talking to the public; post mortem evidence; clues in the victim's possessions; visiting lunatic asylums; interviewing witnesses; setting up soup kitchens to encourage poor people to come forward with evidence in exchange for a meal.*
- The murderer was never caught. There was no fingerprinting, no DNA, no blood grouping. Crime scene photography was only just beginning to be used.
- A vigilante group was set up by George Lusk.

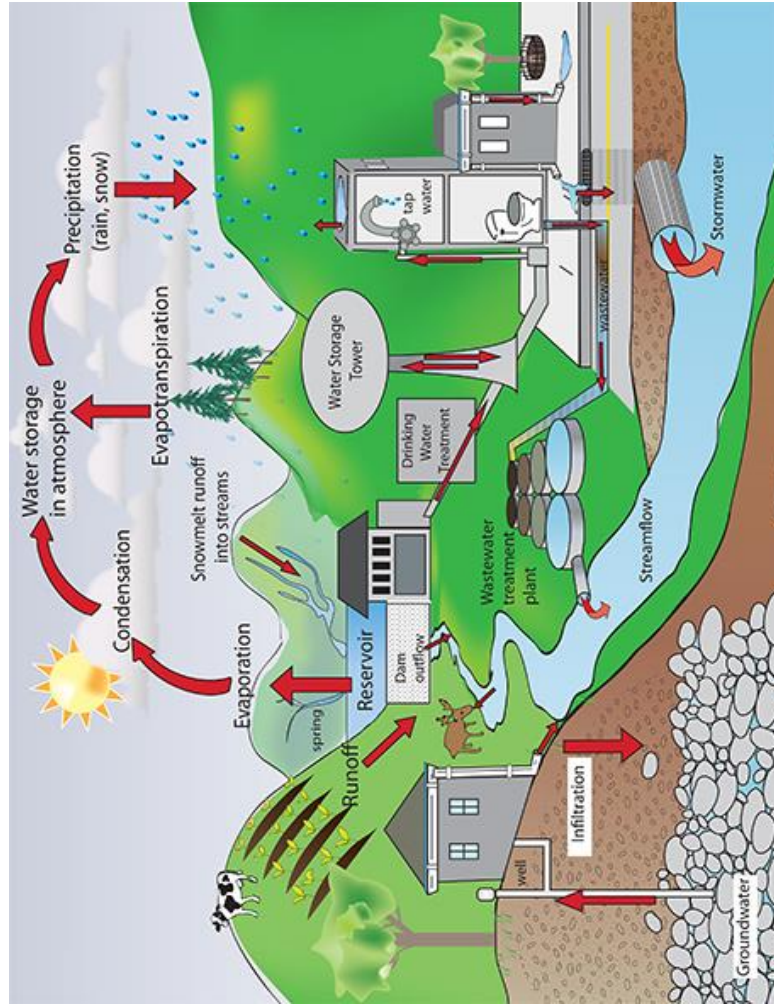
History

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Cycle 3 Knowledge Organiser

Cycle 3 in Yr 8 Geography will focus on the hydrosphere. We will look at the different stores and flows in the water cycle and drainage basin system, considering concepts, processes and issues related to each stage.

Topic 1: Water cycle & drainage basin system



This diagram shows the **drainage basin system**, including human and physical elements. This is an **open system** – it has inputs and outputs. If the diagram showed water flowing into the oceans and being evaporated back into the atmosphere it would show the **water cycle**, which is a **closed system**, with no inputs and outputs.

Key words and definitions

Hydrosphere	Water on our planet on the surface, underground and in the air.
Drainage basin	The area of land around a river drained by the river and its tributaries .
River	Water flowing in a channel.
Tributary	A smaller river that flows into a bigger river.
Water cycle	The path that all water follows as it moves around the Earth.
Runoff	Water flowing over the land.
Evapotranspiration	Evaporation from plants.
Infiltration	Water soaks into the ground.
Groundwater	Water stored below ground in saturated rocks and soils.
Permeable	Water can soak through (opposite is impermeable)
Weathering	Rocks break down in a place through physical and chemical processes .
Erosion	Land is worn down and material transported away through abrasion, attrition, solution and hydraulic action .
Transportation	Material is moved through processes of traction, saltation, suspension and solution .
Deposition	Material which was being transported is dropped.
Coast	Where land and sea meet.
Ocean	Large store of salty water.

Geography

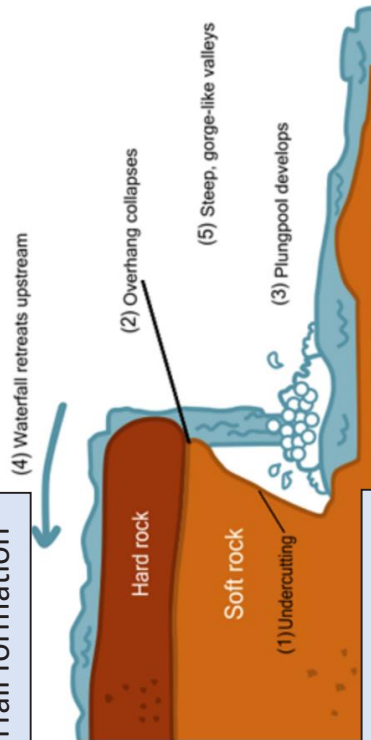
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Geography

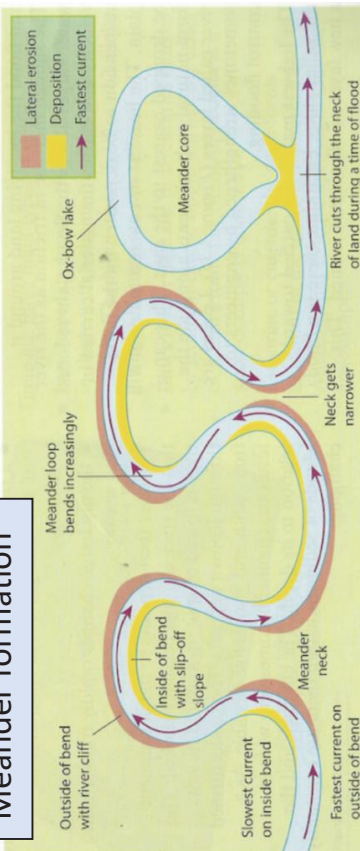
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Topic 2: Rivers & floods

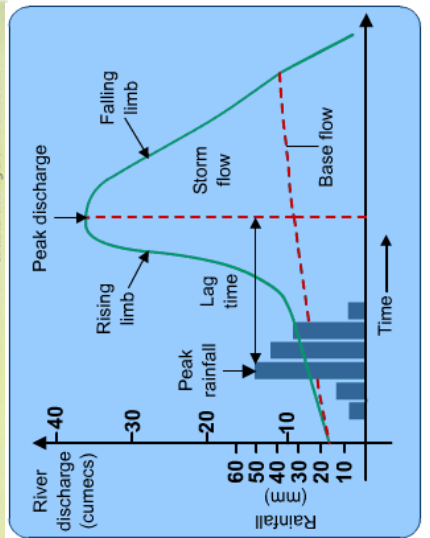
Waterfall formation



Meander formation

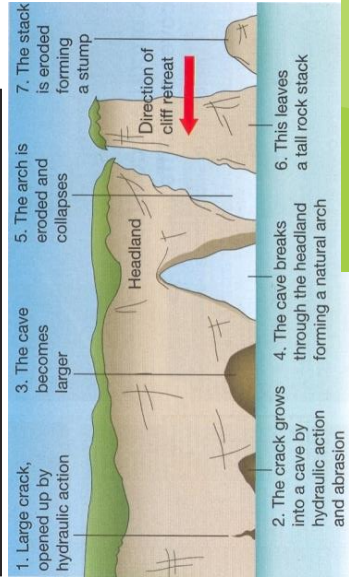


Flood or storm hydrograph

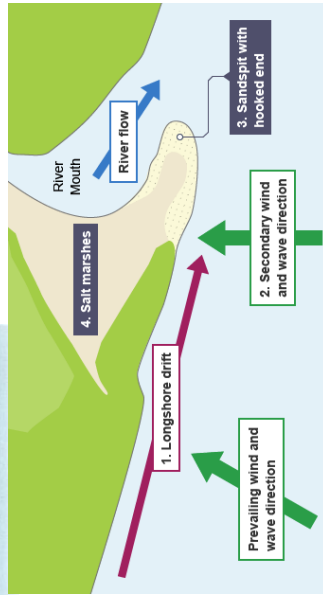


Topic 3: Coasts and Oceans

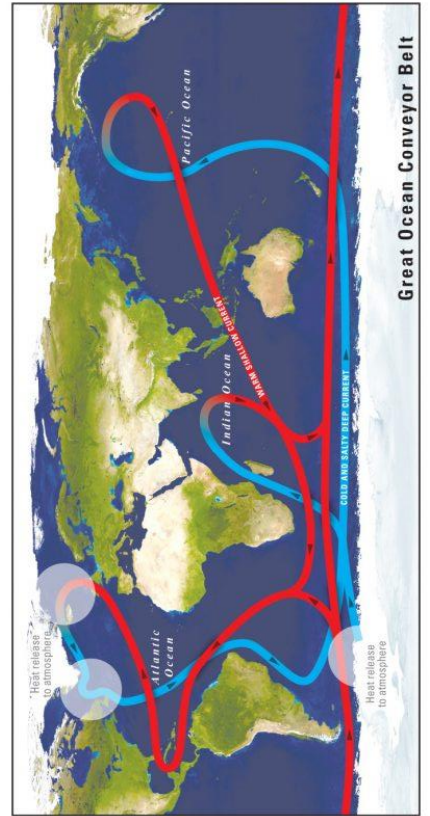
Caves, arch & stack formation



Spit formation



Ocean Currents



Great Ocean Conveyor Belt

Cycle 3 Knowledge Organiser

Cycle 3 in RS will focus on: Sikhism. Sikhism was founded by Guru Nanak around 500 years ago in a place called the Punjab. This is an area which spans part of India and Pakistan in South Asia.

Key words and definitions

Five Ks	Five items that a member of the khalsa considers as part of his or her body.
Golden Temple	The gurdwara in Amritsar.
Gurdwara	A place of worship for Sikhs.
Guru	A teacher.
Kanga	Comb
Kachha	Shorts
Kara	Iron bangle
Karma	Actions that have effects
Kesh	Uncut hair
Kirpan	Sword
Mantra	A form of words to remember God.
Pacifism	A belief that violence is always wrong.
Reincarnation	The return of the soul to a new body after death.
The Guru Granth Sahib	Sikh holy book/scriptures
Ik Onkar	The fundamental belief in One God
Melas	Sikh festivals which demonstrate ancient celebrations
Meeri-peeri	Using belief to change the world.
Khalsa	Community of Sikhs

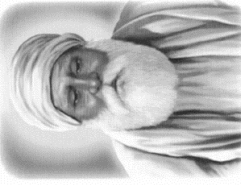


In RS you will notice that there are many very important people. In Sikhism there are ten Gurus. The first was Guru Nanak who was born in 1469.

The Ten Gurus



Guru Angad



Guru Amar Das



Guru Ram Das



Guru Arjun Dev



Guru Hargobind



Guru Har Rai



Guru Har Krishan



Guru Tegh Bahadur



Guru Gobind Singh

Religious Studies

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FESTIVALS

All festivals feature the akhand path and may feature a nagar kirtan.

The akhand path is a non-stop reading of the Guru Granth Sahib. This takes about 48 hours. People read for no more than two hours and then pass on to someone else. The akhand path normally starts two days before a festival.

The nagar kirtan is a street procession where Sikhs commonly visit a few local gurdwaras. The Guru Granth Sahib is taken on a float and hymns are sung along the route.

There are two types of Sikh festival: gurburbs and melas.

Gurburbs are 'Gurus' days. They mark dates that are connected with the Gurus.

A mela means 'fair'. These are ancient celebrations linked to the passing of the seasons. Sikhs used to gather to listen to the Gurus on these days.



The Gurdwara

The gurdwara is used for marriages, naming and amrit ceremonies and as a place Sikhs can learn from the Guru Granth Sahib, and for non-religious activities:

Education

- Including:
- educational visits for school pupils
 - computer training for beginners
 - English classes for adults
 - gurdwara library
 - music lessons
 - courses about Sikhism for the police
 - summer camps for young people
 - Punjabi lessons leading to GCSE and A level qualifications.

Health

- Including:
- raising awareness about diseases such as heart disease and diabetes
 - raising awareness about healthy eating
 - providing preventative checks for heart disease and other diseases
 - providing free eye camps offering free eye tests and treatments for conditions such as cataracts and medical check-ups in Punjab, India.



The Five Ks

The Five K's

There are five religious signs that are the mark of a devout Sikh. The names of all five begin with the letter 'K' which is why they are often referred to as the five 'K's'.

Kesh (hair) - Sikhs believe that the course of nature should not be disturbed as far as possible which is why they refrain from cutting their hair.

Kanga (comb) - A wooden comb is necessary to keep long hair tidy and this is why Sikhs are supposed to carry a kanga at all times.

Kara (steel bangle) - The steel bangle is regarded as a symbol of strength and is worn on the right wrist by both men and women.

Kirpan (dagger) - The kirpan is a small sword and is a symbol of self-defense and the fight against evil and injustice.

Kachha - The kachha is a pair of shorts made to a specific design. It formed part of the military uniform in Guru Gobind Singh's day.



In LC3 we take a trip to Paris, the City of Light!
We'll also revise the perfect and near future tenses, so that you can write about holidays and the activities you like to do.

Opening and closing times are usually given in the 24-hour clock.
For example,
18h (short for **18 heures**) instead of 6 o'clock in the evening.

Write these times using the 24 hour clock:

10am	2pm	11:30am
8pm	5:15am	5:15am
6:20pm	Midday	Midnight

ANSWERS

1000	1400	1130
2000	0515	1715
1820	1200	0000

Now write some other times and test yourself!

Translation task →

Choose to translate into English (easy) or French (harder).

LOOK at one line of the text at a time

COVER the language you're translating into

WRITE your translation

CHECK and correct mistakes with purple pen

C'est où, le musée?

C'est ouvert quand?

C'est ouvert à quelle heure?

C'est combien, l'entrée?

Est-ce qu'il y a ...

une cafetería

une boutique de souvenirs

horaires d'ouverture

ouvert tous les jours (sauf le lundi)

ouvert du (mardi) au (dimanche)

fermé

de 10h00 à 17h00

tarifs d'entrée

adultes/jeunes

enfants

gratuit

Il y a (une cafétéria)

Il n'y a pas de (cafétéria)

Where is the museum?

When is it open?

What time does it open?

How much does it cost to get in?

Is there a ... ?

café

gift shop

opening hours

open every day (except Monday)

open from (Tuesday) to (Sunday)

closed

from 10am until 5pm

entry prices

adults/young people

children

free

there is (a café)

there isn't (a café)

La semaine dernière je suis allée à Paris

avec ma famille. C'est super!

J'ai visité les monuments et les magasins.

À Paris il y a beaucoup à faire.

On peut faire un tour en bateau-mouche,

on peut aller au théâtre ou au concert.

J'adore manger aux restaurants!

Hier j'ai visité le musée du Louvre.

J'ai vu La Joconde – c'était très beau.

J'ai envoyé des cartes postales

mais je n'ai pas fait un tour en Segway

parce que je n'aime pas ça.

Aujourd'hui je vais faire les magasins

pour acheter un souvenir pour ma mère.

Last week I went to Paris

with my family. It's great!

I visited the monuments and the shops.

In Paris there's a lot to do.

You can do a boat tour,

you can go to the theatre or to a concert.

I love eating at the restaurants!

Yesterday I visited the Louvre museum.

I saw the Mona Lisa – it was very pretty.

I sent some postcards

But I didn't do a Segway tour

because I don't like that.

Today I'm going to go shopping

in order to buy a souvenir for my mum.

Writing task 1:

Design a tourist information leaflet for a French-speaking country.

- List some things you can do using *On peut* + an infinitive
- List opening hours/days and entry prices for an attraction
- Write a short review (~20 words) for this place. Include opinions and reasons as well as a star rating!
- Include a drawing of a famous landmark in that country

Writing task 2:

Imagine you're on holiday in a French-speaking country.

Write 2 sentences for each of these bullet points:

- Where you are and who you're with
- Some things you can see and do
- Something you did yesterday, and your opinion of it
- What you're going to do tomorrow

French

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French

Belong Believe Be Proud

Time phrases

la semaine dernière last week
l'année dernière last year
avant hier the day before yesterday
hier yesterday
aujourd'hui today
demain tomorrow
le lendemain the day after
la semaine prochaine next week
l'année prochaine next year

Opinions

j'aime I like
je n'aime pas I don't like
j'adore I love
je déteste I hate
je préfère I prefer
j'aimerais (bien) I'd (really) like
j'ai hâte de (+verb) I look forward to

Near future tense

Follow these with an infinitive verb →
je vais I'm going
tu vas you're going
il/elle va he/she's going
on va we're going
nous allons we're going
vous allez you're going
ils/elles vont they're going

Making past participles

-ER verbs remove ER, add É
-IR verbs remove R
-RE verbs remove RE, add U

Avoir (to have)

j'ai I have
tu as you (sing.) have
il/elle a he/she has
on a we have
nous avons we have
vous avez you (pl) have
ils/elles ont they (m/f) have

Être (to be)

je suis I am
tu es you (sing.) are
il/elle/on est he/she is, we are
nous sommes we are
vous êtes you (pl) are
ils/elles sont they (m/f) are

VOCABULAIRE

Key verbs (past participle)

faire (j'ai fait) to do (I did)
visiter to visit
manger to eat
boire (bu) to drink (drunk)
louer to hire/rent
prendre (pris) to take (taken)
retrouver to meet
voir (vu) to see (seen)
regarder to watch
acheter to buy
envoyer to send
dormir to sleep
attendre to wait

Adding detail to your writing

très very
assez quite
vraiment really

Transport

à pied on foot
à vélo on a bike
en voiture by car
en bateau by boat
en autobus by bus
en car by coach
en avion by plane

Verbs which use être in the perfect tense

aller to go
arriver to arrive
monter to climb
partir to leave
sortir to go out
venir to come
entrer to enter
retourner to return

Examples:

je suis allé I went (m)
je suis allée I went (f)
il est parti I left (m)
elle est partie She left (m)
on est partis We left (pl)

All your LC3 vocab
is also on Quizlet:



Things to see and do in Paris

visiter le musée visit the museum
visiter/voir les monuments visit/see the monuments
manger au restaurant eat at the restaurant
voir la Joconde see the Mona Lisa
voir l'Arc du Triomphe see the Arc de Triomphe
faire un tour (en Segway) do a tour (by Segway)
aller au théâtre go to the theatre
faire du shopping do some shopping
acheter des souvenirs buy some souvenirs
envoyer des cartes postales send postcards
retrouver un beau garçon/ une belle fille meet a pretty boy/girl
regarder les feux d'artifice watch the fireworks

Music

Belong Believe Be Proud

Certain notes with a Leitmotif can be **emphasised** to create a specific atmosphere.
Emphasise = Stress / make important / stand out.

Key Terminology	Definition
Leitmotif	A short musical motif that represents a character, place or theme.
Imitation	When one part of the music (like the melody) copies another. E.g. using imitation to give the feeling of a chase.
Synchronizing	Composers timings the music with the action or visuals on screen.
Underscore	Music that is played underneath a scene in a movie, such as the marriage scene in <i>Pirates of the Caribbean: At World's End</i> .
Ostinato	A repeated rhythmic/melodic pattern. Can create a sense of urgency: like the 'Jaws' motif is used.
Synthesised Sounds	Electronic computer generated sounds.
Hits	Specific actions that can be synchronized to music. E.g. a bass drum to illustrate when a Dinosaur walks in the film 'Jurassic Park'.

Extended listening:



Pirates of the Caribbean



The Amazing Spider-Man

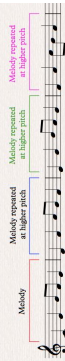


Batman Begins

When listening to these, use the 'Pillars of Music' diagram on the following page and write down anything you notice about the music which relates to these pillars. E.g. *The music uses a syncopated rhythmic pattern to create an uneasy atmosphere.*

Musical Devices:

Sequence: When a melodic pattern is repeated and played a semitone higher each time it is repeated.



Repetition: Repeating musical ideas to create a tense atmosphere.

Syncopation: Where notes fall off-beat as a pose to being on the beat

Drone: The same note repeated in the bass part of a piece of music, which creates a sense of foreboding.

Film Music

Key Composer – Top Trump Card:



Hanz Zimmer is one of the most well known and influential composers in film music. His 'Leitmotifs' are memorable, well constructed, and known by millions of people. His greatest works include 'Pirates of the Caribbean', 'Interstellar', 'Top Gun: Maverick', 'Batman: The Dark Knight', 'The Lion King' and many more.

Challenge Theory Papers:

Fancy a challenge? Have a go at some of these questions from a graded theory paper.

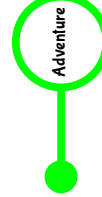
This is not a substitution for your knowledge organiser work. You must still prioritize the information in your knowledge organiser in preparation for your lessons and knowledge quizzes.



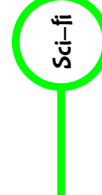
Grade 1

Grade 2

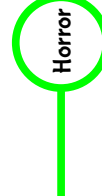
Brief analysis of Film music genres



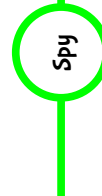
Fast tempos, bright instrument sounds and lots happening to create a sense of danger and excitement.



Electronic sounds, mixed with traditional instruments which are played to the extreme of their ranges to create 'other-worldly' sounds



Distant creepy movements and eerie haunting winds (SFX) that are played in the background are what build up the spooky atmosphere.



Orchestral or lounge jazz pieces with an exotic feel designed to excite and stimulate the listener.

Music

Belong Believe Be Proud

Composers Toolbox and analysis of Film Music



'He's a Pirate' - Pirates of the Caribbean - Leitmotif

Key signature = G major

Time signature: 3 crotchet beats per bar

Allegro



Hanz Zimmer

The name of the composer, always placed in the top right of a musical score.

Instrumentation: To create the triumphant sound of this leitmotif, this **fanfare** is played on instruments within the brass family, such as a trumpet.

Tempo: marked as 'Allegretto', meaning moderately fast

Rhythm: A mix of rhythms are used here:
 ♩ = 1 beat
 ♪ = 1/2 beat
 ♫ = 1 beat rest

	In performance	In composing
Silence	If silence is used it is important to differentiate between the middle of a piece and the ending	A whole orchestra using a brief moment of silence is one of the best ways to get the audience's attention
Rhythmic ostinato	The ostinato performer must maintain the tempo to keep the flow of the music	A rhythmic ostinato can help create a feeling of a forward drive in a piece of music
Melody-led homophony	Be sure that there is a good balance between the melody and accompaniment	Use the accompaniment instruments as a block, with a different melody line above
Very fast tempo	It is important to emphasise the first beat of the bar to give a one-beat-in-a-bar feel	Extremely fast tempos can create a one-beat-in-a-bar feel, giving great momentum and energy

Ideas on how to represent a character in music:

A hero theme is likely to be played in a **major key**, on an instrument such as the **Trumpet**. This fanfare style of playing gives a regal, triumphant sounding timbre.

A villain's theme is likely to be played in a **minor key** on an instrument such as a **Violin**. Violin's create a sinister, eerie type of sound when played at a **high pitch**, with a **pianissimo dynamic**.

These leitmotifs can be enhanced by using electronic, synthesized sounds.

Questions you may be asked:

- Q. How does the composer create a tense atmosphere for a horror scene?
- Q. What would you expect to happen to pitch and dynamics as a chase scene progresses?

After knowledge quizzes, create a question of your own based on things you got wrong:
 Q.
 Q.
 Q.

Creating melodies that represent the on-screen visuals:

- This irregular rhythmic pattern creates a sense of swaying, thus representing the sea.



- Conjunct melodies - melodic patterns which move by step, rather than leaping around - used for composing memorable patterns on music.
- Creating melodies that moves in a wave-like motion, i.e. the melody will rise and fall in pitch
- The implementation of brass instruments allows the melody to sound heroic and proud.
- Using silence: A whole orchestra using a brief moment of silence is one of the best ways to get the audience's attention
- Tempo: Extremely fast tempos can create a one-beat-in-a-bar feel, giving great momentum and energy, perfect for representing heroic, quick-paced action sequences.

Music

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Performance:

Throughout your time in KS3, your lessons will consist of lots of performance tasks. Performance is when musicians play music, often in front of other people. This helps develop our skills and build our confidence levels.

Rhythm

Note values, and the patterns of different note values

Crotchet = 1 beat
Quaver = ½ beat
Semi-quaver = ¼ beat

Dynamics

How loud or quiet the music is

Forte (f) – Loud
Piano (p) – Quiet
Forfissimo (ff) – Very loud
Pianissimo (pp) – Very Quiet

Tempo

Speed of the music

Allegro – Fast
Andante – Moderate
Adagio – Slow

Tonality

The type of overall sound created in a piece of music.

Major – Sounds happy
Minor – Sound sad

Composition:

In Music, this word means to create our own music. Composers will take ideas, and use the 'Pillars of Music' to create their own, unique soundtracks to Films, TV and Video Games, but also compose pop songs, and any other type of music.

KEY CONCEPTS OF MUSIC (PCA)

Performance

Composition

Appraisal



The Pillars of Music

Appraisal:

Refers to the listening and appreciation of music. If you listen to any type of music, whether it be on your phone, on a film or a video game, or on an advert, you are 'appraising' music. In a more detailed version of appraisal, you may be asked to feedback on what you have heard (like we do in class), or to answer questions based on the music you have heard.

Structure

the difference sections of a piece of music

Introduction, Verse, Chorus, Bridge, Outro

Instrumentation

The different instruments used to create a piece of music

Split into 'families' where each instrument belongs. E.g. Trumpet belongs to the brass family. Drums belong to the percussion family.

Meter

Time signatures – how many beats are in each bar

3/4 – 3 crotchet beats per bar
2/2 – 2 minim beats per bar
3/8 – 3 quaver beats per bar

Higher up the staff, the higher the pitch.

Usually, the smaller the instrument, the higher the pitch

Pitch/Melody

How high or low the notes are

Cycle 3 focus: Drama techniques for devising work from a stimulus.

What is Devising?

Devising is a process in which the whole creative team develops a show collaboratively. You are usually given a stimulus that you use to help inspire ideas to make up your own piece of drama. Drama techniques are important to help make your piece of drama more interesting to watch.

Thought Track

Thought-tracking helps inform an audience about a character.

You see it in action when:

- a character speaks out loud about other characters' inner thoughts at a particular moment in the drama.
- A character would usually do this during a freeze frame/still-image.

There are three different types of thought track:

- Seeing
- Hearing
- Feeling



Split scene/Cross Cutting

Split scene is a drama technique borrowed from the world of film editing.

In drama and theatre the term is used to describe two or more scenes which are performed on stage at the same time. They have to respect each other in terms of not flowing over the top of each other.

This can be done through tableaux and mime. Usually split scenes focus on:

- Two different times
- Two different locations
- Two different opinions



Conscience Corridor/Alley

This strategy is used at a key point in a drama, and is a way of exploring thoughts of a character. It provides an opportunity to reflect in detail on the underlying issues and dilemmas of a character at that particular moment.

It can be used to:

- Help a character make a decision
- Present different thoughts and feelings going on in a character's mind
- Present the memories of a character



Drama

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Drama

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Ensemble work

Actors working together to create a piece of theatre/drama. All the actors are of equal importance, and have roughly the same amounts of time on stage.

Ensemble movement is when all the cast work together to **physically** create one single effect.

This approach to acting aims for an effect which is achieved by all members of the cast working together rather than emphasizing individual performances.



Physical Theatre

A form of theatre that puts emphasis on movement rather than dialogue.

Physical theatre uses the body to tell stories and explore themes.

It uses techniques such as movement, mime, gesture and dance and can be used to explore complex social and cultural issues.



Spellings to learn this cycle.

- Devising
- Stimulus
- Context
- Ensemble
- Conscience corridor
- Thought track
- Split scene
- Physical Theatre
- Collaboration
- Performance
- Sightlines
- Rehearsal
- Characterisation

Key word/term	Definition
Devising	Working as a group to create your own piece of theatre, usually based off of a given stimulus. Devised theatre usually uses stylistic drama techniques to help tell the story and explore its theme.
Stimulus	The starting point, idea or inspiration for your devised drama. It is what you base your drama around. This could be an event in history, a photograph, a song, a poem etc.
Context	The factors surrounding something which help us understand it. That could be the background or the circumstances. When we devise Drama we have to think of what 'context' we are setting our story in.
Collaboration	Collaboration in Drama mean the group not only has to work together, they have to think together. The end product comes from the efforts of the group. This means collaborators are equal partners – there is no leader.

Food Cycle Knowledge Organiser

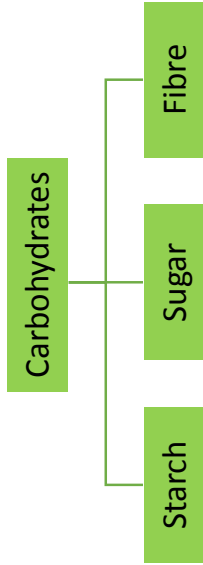
This Learning cycle in Food covers:
carbohydrates, special diets and cooking methods.



Design and Technology

Belong Believe Be Proud

Quiz 1 General Knowledge Carbohydrates



Key words and definitions:	
Nutrient	A chemical in foods that your body can absorb and use
Carbohydrate	A macronutrient used for energy
Starch	A complex carbohydrate used for long term energy
Sugar	A simple carbohydrate used for short term energy
Fibre	A type of complex carbohydrate used to fill you up and clean out your digestive system
Sources	Foods that contain high amounts of a nutrient
Functions	The jobs nutrients do in your body
Excess	If you have to much of a nutrient in your diet
Deficiency	If you don't have enough of a nutrient in your diet
Allergy	A medical condition, results in an allergic reaction which might be damaging to your health or even fatal.
Intolerance	A reaction to a food that will cause some discomfort but that is not threatening to your life.
Allergen	The food or ingredient that causes an allergic reaction.
Vegetarian	Limits the animal products they eat - there are different types.

Sources of starch, sugar and fibre: [Use this link](https://www.nhs.uk/live-well/healthy-weight/why-we-need-to-eat-carbs/)
<https://www.nhs.uk/live-well/healthy-weight/why-we-need-to-eat-carbs/>
or google **NHS Livewell Carbohydrates.**
Find and learn the sources of starch, sugar and fibre.

Functions of fibre:
Insoluble fibre – collects rubbish, keeps your system clean, prevents constipation, diverticular disease and cancer in your colon.
Soluble fibre – makes you feel fuller for longer, feeds healthy gut bacteria and can help lower cholesterol.

Function of sugar: gives you energy quickly, if you don't use it immediately it is converted to fat and stored.
Excess sugar= tooth decay, gum disease, obesity, type 2 diabetes.
How much sugar should you eat? As little as possible, your body can make it from other foods.

Function of starch: a slow and steady release of energy.
Other nutrients in starchy foods: B vitamins, calcium, iron.
How much starch should you eat? 30% (1/3) of the food you eat should be starchy food.
Is starch healthy? The NHS recommend that you get 50% of your energy from starch, it contains less than half the calories of fat and also bulks out your diet if you choose wholegrain varieties.



Design and Technology

Belong Believe Be Proud

Quiz 2 Key Words

To form an idea about something. To assess

Evaluate

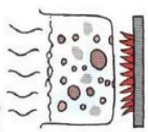
To think carefully or deeply about

Reflect

Quiz 2 Processes

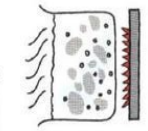
Cooking Methods

Boiling



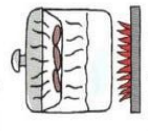
Food is cooked in deep boiling liquid [water, stock, wine etc.] in an open or covered saucepan.

Simmering



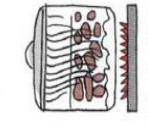
Like boiling, but the liquid is kept just below boiling point in an uncovered pot.

Steaming



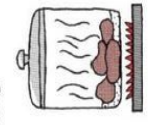
Food is placed on a container and cooked in the steam from boiling water in a covered pan or steamer.

Stewing



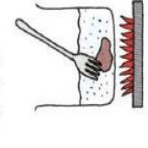
Cooking food in its own juices with a little additional liquid, in a covered pan, at simmering point.

Braising



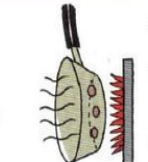
Pieces of food are first browned in a little fat, then cooked with some liquid in a closed pan.

Deep-frying



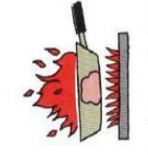
Frying pieces of food in a deep pot or fryer with plenty of hot oil or fat.

Sautéing



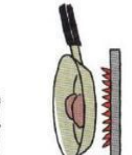
Cooking small or thin pieces of food in a little very hot oil or fat. The frying pan is shaken constantly to stop the food from burning.

Flambéing



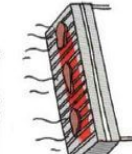
After frying, alcohol is added to the food in the frying pan and set on fire. This gives added flavour to the food.

Pan-frying



Frying food in a little oil or butter using a frying pan over moderate heat.

Broiling/grilling



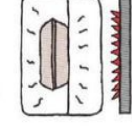
Cooking food like steak or fish, over or under open heat, e.g. under the oven grill, or on a barbecue or hot plate.

Roasting



Cooking food like meat or poultry with some fat in a hot oven [between 200-240 degrees centigrade].

Baking



Cooking food like cakes, pies, bread etc. in a closed oven at a temperature of between 120-240°C.

Frying safety:

1. Do not leave pan unattended.
2. Use dry food.
3. Reduce heat if it smokes.
4. NEVER put water on a fat fire.

Blanching (part cooking)

1. Food is submerged in boiling water for a few mins.
2. Food is plunged into cold water.



Food Knowledge Organiser

Quiz 3 General Knowledge

special diets

Lactose intolerance intolerance to the sugar (lactose) in cow's milk.

Coeliac disease an allergy to the protein (gluten) in wheat. Some people are also allergic to the proteins in other cereals eg oats, corn.

Gluten intolerance intolerance to the protein (gluten) in wheat.

The **14 most common allergens** have to be highlighted on food labels BY LAW in the ingredients list (underlined or put in bold text). Think of the reasons why this is the law. Look them up.

Vegetarians:

Pescetarians - no meat

Lacto-ovo vegetarians - no meat, no fish

Lacto vegetarians - no meat, no fish, no eggs

Vegans - no meat, no fish, no eggs, no animal products (honey, gelatin (in jellies, gravies, made from bones and cartilage)). They need to eat foods fortified with Vitamin B12 because it is only found in animal foods.
(Hint - pesce = fish (Italian), lacto = milk, ova/ovum = egg)



Religious diets:

Halal and Kosher meats are slaughtered in a particular way.

Ramadan is an Islamic festival that prohibits eating and drinking during daylight hours.



Religion	Alcohol	Pork	Beef	Lamb	Chicken	Fish
Islam	No	No	Halal	Halal	Halal	No
Hinduism	No	No	No	Yes	Yes	Yes
Judaism	Yes	No	Kosher	Kosher	Kosher	Yes
Sikhism	No	No	No	Yes	Yes	Yes
Buddhism (strict)	No	No	No	No	No	No
Seventh Day Adventist	No	No	No	No	Yes	Yes
Rastafarian	No	No	No	No	No	No

Quiz 1 Key Words

Accurate

Reliable, Exact, Correct

Assemble

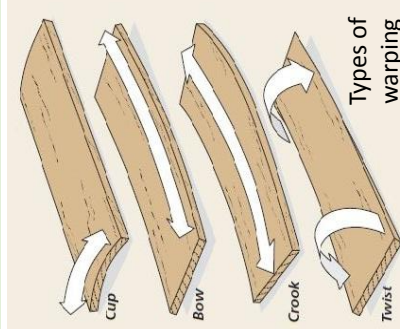
Timbers Cycle Knowledge Organiser

To fit separate parts together

Quiz 1 General Knowledge

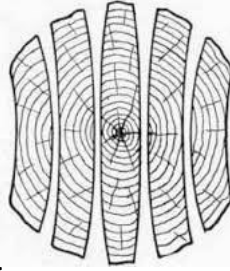
Natural timbers

Wood is an organic material that is the main substance in the trunk and branches of a tree. Wood prepared for use in building and carpentry is known as timber. There are two types of natural timber: Hardwood and softwood. These names do not refer to how hard the wood is.



Warping is the bending or twisting that happens to natural timber as it dries out.

Manufactured boards do not have a grain in the same way, which means they are much more stable and do not warp like natural boards.



Quiz 1 General Knowledge

Manufactured boards

Made from wood; often using off-cuts from natural timber. They are bonded together with adhesives. They tend to be cheaper than solid wood planks

Plywood



- Plywood is very strong in all directions; often stronger than solid wood.
- Outside layers are finished with a higher-quality veneer.
- Must always include an odd number of layers with the grain running in alternating directions.
- **Used in construction, furniture.**
- Flexi ply is a form of plywood but it is extremely flexible.

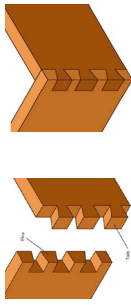
Alternate layers of wood (veneers) are glued together at 90 degrees to each other, to build up the thickness needed.

Quiz 1 General Knowledge

Wood joints

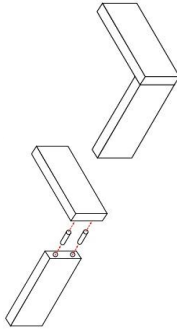
Dovetail joint

A very strong because of the way the 'tails' and 'pins' are shaped. This makes it difficult to pull the joint especially when glued. Used in box constructions such as drawers, jewellery boxes and other pieces of furniture where strength is required.



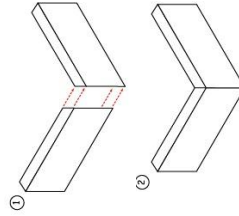
Dowel joint

This joint consists of drilling accurate holes in both sections of wood and joining them with dowel pegs. Within industry this is often used to construct flat pack furniture.

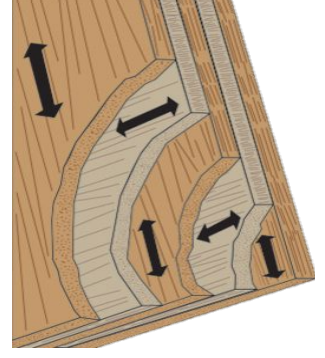


Mitre joint

Mitre joints are often used to produce the corners of picture frames and boxes. The mitre needs to be cut at a 45 degree angle, this is often used with a mitre saw that can cut at many different angles.



Construction of plywood. Arrows show direction of wood grain.



Timbers Cycle Knowledge Organiser

Quiz 2 Properties

Properties	Properties of wood
<ul style="list-style-type: none"> • Easy to work with • Quite strong • Lots of knots 	<p>Pine</p> 

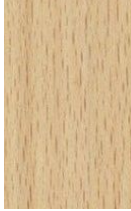
Softwood

Properties

Properties	Uses
<ul style="list-style-type: none"> • Hard • Easy to work • Resistant to rot • Expensive 	<p>Mahogany</p> 

Hardwood

Properties

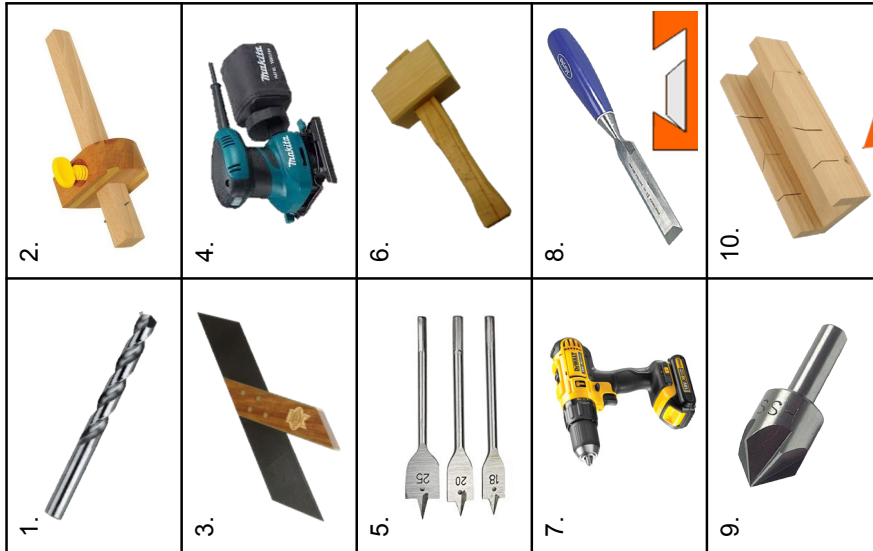
Properties	Uses
<ul style="list-style-type: none"> • Hard • Tough • Finishes well 	<p>Beech</p> 

Quiz 2 Properties

Property	Wood Properties
Density	Compactness of a material, defined as mass per unit volume
Stability	Ability to resist changes in shape over time
Stiffness	The ability to resist bending

Quiz 3 Processes

Process	Tool names and uses
1. Twist drill	Cutting tool used to create holes
2. Marking gauge	To mark a line parallel to an edge
3. Mitre square	Used to mark out 45° angles
4. Palm sander	Sanding, finishing wood surfaces
5. Flat bit	Drills larger holes in wood
6. Mallet	Used with chisels and for knocking pieces of wood together
7. Power drill	Drills holes in material – battery powered and hand held
8. Bevel chisel	Bevelled blades can get in corners for cutting dovetails
9. Counter sink	Creates a cavity in material so screw heads can be flush to the surface.
10. Mitre box	Used to guide a hand saw to make precise mitre cuts



During this topic you will learn the types, properties and uses of metals

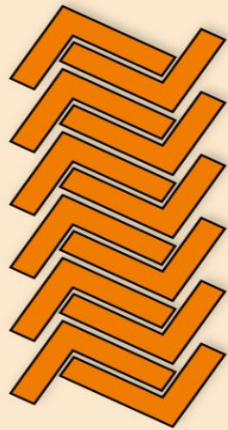
Metal Cycle Knowledge Organiser

Quiz 1 General Knowledge

Planning, cutting and shaping

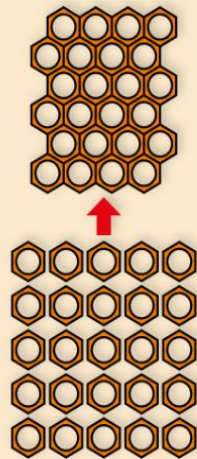
Wastage = total area of material – area of material used for shapes

Nesting



Arrange shape efficiently and close together.
Reduces amount of waste material between each shape.

Tessellation



Used for shapes that **fit perfectly together with no space** between them.
Waste material is kept to the edge.

Area of a square
A = base x height

Area of a triangle
A = 1/2 x base x height

When cutting shapes from materials, try to determine the best way to organise the shapes so that as many as possible can be cut from the least amount of material, here are two examples:

Quiz 1 Key Words

The standard, or excellence of something

An item, or substance that is manufactured

Quality

Product

Quiz 2 Properties

Metal Properties

Non-ferrous metals and properties

Aluminium



- Lightweight
- Corrosion resistant
- Malleable
- Tough
- High electrical & thermal conductivity

Zinc



- Corrosion resistant
- Used mainly for plating (covering) metals like steel and iron.

Ferrous metals and properties

Cast Iron



- Iron + Carbon (2-4%)
- Hard skin but brittle, soft core.
- Good in compression
- Poor corrosion resistance

Mild Steel (low carbon steel)








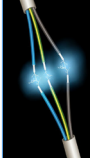
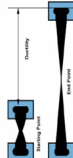


- Iron + Carbon (0.25%)
- Malleable
- Ductile,
- Tough.
- Poor corrosion resistance

Metal Cycle Knowledge Organiser



Design and Technology

Belong Believe Be Proud

Quiz 2 Properties		Material Properties
Insulator	 	A material which does not conduct electricity or heat.
Hardness		The resistance to indentation, scratching and wear and tear at the surface.
Toughness		The ability to withstand a sudden impact.
Thermal conductivity		The ability to transfer heat through the material.
Electrical conductivity		The ability to allow electricity to pass through the material.
Ductility		The ability to draw the material out so it gets longer and thinner and thinner.
Malleability		If a metal is able to be hammered or pressed into a flatter and wider shape without breaking or cracking.
Corrosion Resistance		The ability of a material to be weather resistant and not rust.

1. 	2. 
3. 	4. 
5. 	6. 
7. 	8. 
9. 	10. 


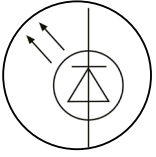

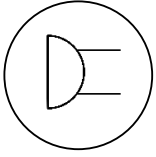


Quiz 3 Processes		Tool names and uses
1. Metal vice	To hold work whilst cutting/ filing.	6. File/s Removes fine amount of material from work.
2. Hacksaw	Cutting straight lines in metal.	7. Ball peen hammer Use to shape metal/ or use with centre punch.
3. Tin snips	Cutting straight lines in sheet metal.	8. Steel rule Measuring material in cm/mm.
4. Sheet metal nibbler	Cuts through sheet metal.	9. Centre punch Make an indent in metal before drilling.
5. Twist drill	Cutting tool used to create holes	10. Scriber Use to mark out lines/ design on metal.

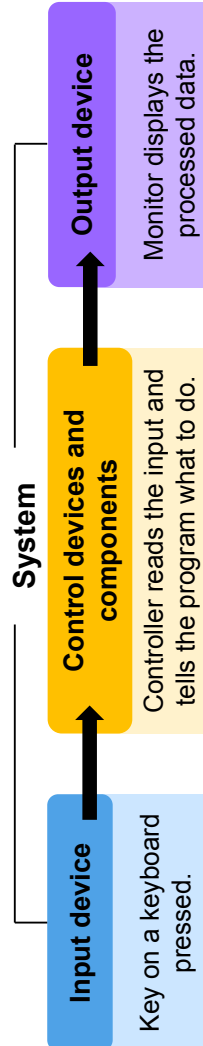
Electronics & CAD/CAM Cycle Knowledge Organiser

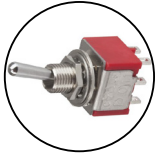
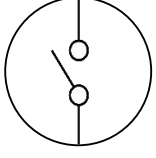

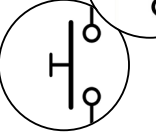
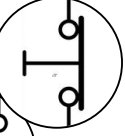

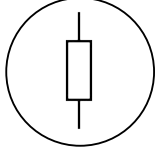

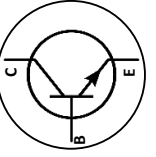
Quiz 1 General Knowledge

Electronics

Picture	Sensors (input devices)	Outputs	Symbol
	<p>Light-dependant resistor (LDR) Detects changes in light levels. The resistance decreases as the brightness increases. LDRs are used in outdoor street lamps</p>	<p>Light-emitting diode LED Gives out light when current passes through it. Low voltage/ low power consumption. E.g. power indicators and TV screens</p>	
	<p>Thermistor Its resistance changes with temperature. Thermistors are often used where it is important to know the temperature, such as inside a refrigerator</p>	<p>Buzzer Makes a noise when a current passes through it. Useful in a sensing device to give people a warning that something needs their attention</p>	

A system is made up of several parts that work together as a whole to carry out a function. All electronic systems require an **input**, a **process** (control device...) and an **output**.



Picture	Control devices and components	Symbol
	<p>Toggle switch Used to complete or disconnect a circuit. Can be turned on (closed) to let current flow or turned off (open) to stop current flow.</p>	
	<p>Push to make switch Current flows when pushed in.</p>	
	<p>Push to break switch Circuit is broken when pushed in</p>	
Picture	Control devices and components	Symbol
	<p>Resistor It can be added to a circuit to change its resistance. It can restrict the flow of electricity in a circuit.</p>	
	<p>Transistor Used as either a electrical switch or a current amplifier. When a small voltage at the Base connection is detected, current can flow between the Collector and the Emitter.</p>	



Electronics & CAD/CAM Cycle Knowledge Organiser

Quiz 2 Processes

2D Design tools

1. Select	Select shapes and icons	7. Text	Allows text to be written on work
2. Straight line	Draws a straight line	8. Zoom to selected area	Allows user to see close up within the workspace
3. Circle	Draws a circle	9. Delete any object	Deletes selected object
4. Curved line	Draws curved shapes	10. Delete part of line	Delete a part of a line between two points
5. Rectangle	Draws rectangular shapes	11. Grid lock	Moves cursor in 1 cm increments
6. Dimensions	Measures in mm between two points	12. Step lock	Moves cursor in 1 mm increments

Quiz 3 Computer Aided Design

CAD software is commonly used by designers to create design ideas, develop and model 2D and 3D products and manipulate before manufacturing. e.g. 2D design and Autodesk Inventor (3D)

- More accurate than hand drawings
- Designs can be changed and tested before production.
- Offers views of 3D models from all angles
- Final drawing/file can be emailed instantly



- Can be difficult to learn
- Expensive software

Disadvantages

- Expensive equipment
- Replaces human workforce



Computer Aided Manufacturing

CAM uses computer numerical control (CNC) to manufacture the CAD designs. e.g. Laser cutter, 3D printer, CNC router and lathes.

Advantages

- High level of accuracy
- Consistent quality of product manufactured
- Increases speed of production
- Can operate 24 hours a day
- Products can be made directly from CAD files

Quiz 3 Properties and Key Words

Types of Thermoplastics

Acrylic



- Hard and rigid
- Range of colours
- Easily scratched
- Waterproof
- Insulator













HIPS

High impact polystyrene



- Flexible
- Lightweight
- Can be vacuum formed
- Range of colours
- Waterproof
- Insulator



1.		2.	
3.		4.	
5.		6.	
7.		8.	
9.		10.	
11.		12.	

In a favourable or superior position
Or, in an unfavourable or inferior position

the quality of being attractive or interesting

Evolution, Growth, Expansion, Maturing

Advantage/
disadvantage

Appeal

Development

Cycle 3 in Year 8 PE will focus on developing your **resilience** through activities such as *Table Tennis, Health Related Fitness & Football*

Cycle 3 Knowledge Organiser

<u>Key words and definitions</u>	
<u>Concept - Resilience</u>	<u>Resilience - Focus Statement</u>
Resilience	Demonstrate mental toughness when developing my skills
Be Fearless	Learning from my mistakes
Adapt	Modify my technique in order to improve with some confidence
Perseverance	Persevering no matter the outcome
Collaboration	Working with others to develop and adapt tactics
Marginal Gains	Developing tactics to outwit opponents
Communication	I can constructively feedback to others
Determination	Completing my assessment with the best of my ability
Be Proactive	I can support learning and progress in PE



Resilience

Cycle 3 in Computer Science will focus on Scratch, a programming language based on graphical code blocks. You will learn how to make a game in Scratch and learn the skills to then design your own game.

Key words and definitions




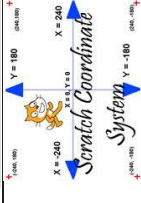
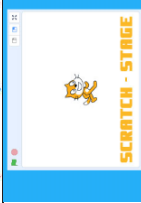
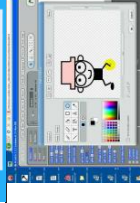
Scratch	Programming language based on graphical code blocks.
Sprite	An object in Scratch which performs functions controlled by scripts
Blocks	Programming commands that you snap together to create a program in Scratch.
Stage	Where your program is displayed when active.
Scripts	The instructions that determines what happens on the stage.
Broadcast	A message that is sent through the Scratch program.
Control Block	A block that starts a script running.
Duplicate	To copy and create another command.
Execute	To make script or block run.
Forever	A function in Scratch that repeats a set of code forever, done by the Forever block.
Green flag	This is what starts most projects' scripts running.
Hide	A feature in Scratch which completely hides a sprite from the screen.

It is important that you remember the colour codes for commands as this will help you find the correct blocks of code quickly without searching through all commands which takes a long time.

Topic 1 Scratch

Learning outcome 1: To understand the main block commands used in Scratch and how they are used to create applications.

Scratch:

	The Scratch logo which is the trademark you will often see
	The cat sprite will always appear when you open a new game. You normally delete this before you begin
	The green flag is normally used to start your game, so make sure you include it as part of your code against each sprite
	Scratch co-ordinate system. This will allow you to place your sprites in position or move them to particular places
	The Scratch stage where your game will run and where you create your background, either by drawing your own or bringing in one of the backgrounds that Scratch provide
	A sprite created using the drawing tools that scratch provide for you to make sprites or draw your own background

Computer Science

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Computer Science

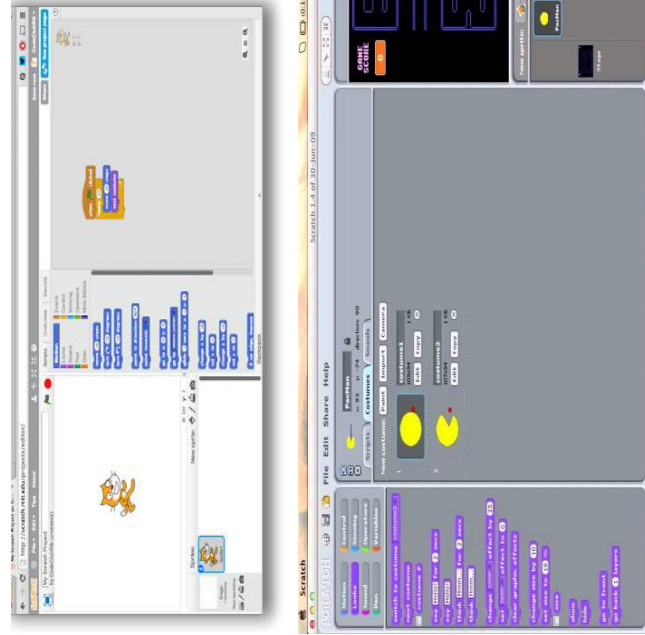
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Key words and definitions

Looks Block	A block which controls what a sprite or the stage looks like.
Motion block	A block which controls a sprite's movement
Pen	A feature in Scratch, which allows things to be drawn on the screen.
Operations block	A block that performs math function.
Paint editor	Scratch's built-in image editor.
Sensing block	A block that detects something, from a sound from a microphone to whether a sprite is touching a certain colour.
X position	The position that a sprite or the mouse is at along the horizontal axis.
Y position	The position that a sprite or the mouse is at along the vertical axis.
Variable	A value that holds a number or string that can be changed.
Costume	Different versions of the same sprite are called costumes. Costumes have their own tab above the blocks menu.
Backdrop library	Where you can find backdrops that Scratch provide for you.
Sound library	Where you get sounds that Scratch provide for you to use in your programs.
Debugging	Fixing problems in your programs that you find from testing.
Operators	Operators are used to do maths operations with variables such as adding scores or comparing values.
Flow Chart	A step-by-step diagram used to plan programs before coding begins. This planning should help reduce coding errors.

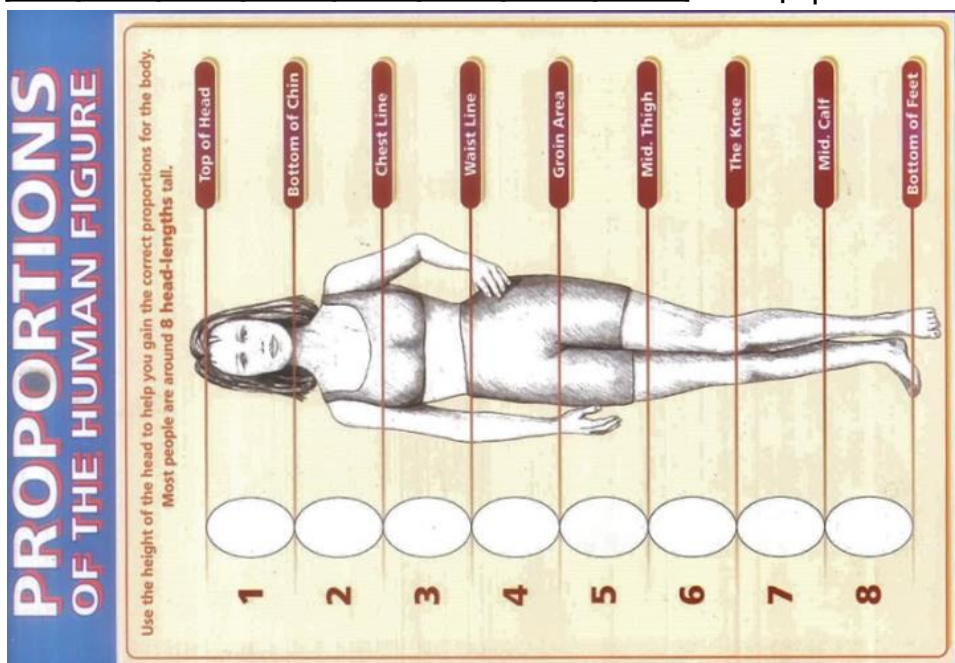
Topic 2 Using Scratch to make a game

Learning outcome 2: To understand how to create a game in Scratch using the skills you have acquired.

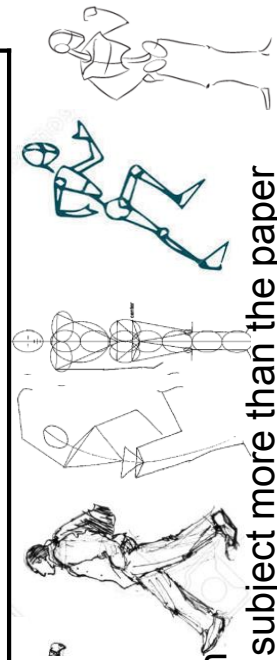


Remember to test your programs regularly for each new piece of code. This will make it easier to make sure your game works. If you do not test your game as you go along it will be hard to find any problems at the end, especially if you have added a lot of code. This is good programming practice.

Throughout cycle 3 you will learn about the artist Alberto Giacometti and his work. You will learn how to draw the human form in proportion and how to adapt a body into an action pose. This will lead onto a 3D task in cycle 4.



<u>Word</u>	<u>Definitions</u>
SCULPTURE	Skill in performing tasks, especially with the hands.
PROPORTION	Enlarged or altered beyond normal proportions.
ELONGATED	The art of making two or three-dimensional forms, especially by carving stone, wood or metal.
BRONZE	A copper coloured metal, mixed with Tin.
EXAGGERATED	The relationship between things in size.
PAPIER-MACHE	Make (something) longer, especially unusually so in relation to its width.
DEXTERITY	Is a substance made of paper pulp mixed with glue and pressed together, moulded and becoming strong when dry.



Top Tips for Drawing

1. Keep a sharp pencil
2. Press lightly and sketch
3. Observe - Look at your subject more than the paper

Art

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Alberto Giacometti

Giacometti died in 1966. He was suffering from heart disease and chronic bronchitis

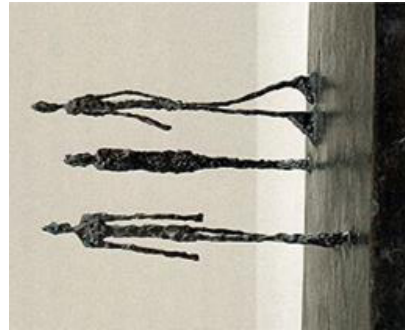


He once said that he wasn't sculpting the human body but rather the shadow it cast

'L'Homme au doigt' (Pointing Man) or (Man Pointing) is a 1947 bronze sculpture by Alberto Giacometti, that became the most expensive sculpture ever when it sold for US\$141.3 million on 11 May 2015



One of the regular visitors to Giacometti's studio was poet Samuel Beckett. The poet and artist met in 1937



When Giacometti died in 1966 his studio contained countless unfinished works

Alberto Giacometti was born on 10th October 1901 in Borgonovo, Switzerland (near the Italian border)





Belong

Believe

Be Proud