Year 9 Knowledge Organisers

Half Term 3

January – February 2026

BLESSED TRINITY RC COLLEGE

Topic Overviews for

Half term 3

English	Non-fiction
Maths	Rates Standard form Maths and money Straight line graphs Ratio and proportion
Science	Building blocks of life Building blocks of matter Physical building blocks
RE	Promise and prophecy – Women in the bible
History	The Second World War
Geography	Tectonics Global development
MFL	Spanish – TV and films Jobs French – Food and drink
Computing	Python programming
Music	Film music
Art	African Art
PE	Rotation – Basketball, badminton, football, Gymnastics, handball, health related fitness, hockey, rounder's rugby, table tennis, athletics, cricket

Year 9 Non-Fiction Unit Knowledge Organiser

Articles

What is AI?
Explores the basics of Artificial Intelligence, how it works, and how it is used today.

Teenagers and Social Media: It might actually be good for them
Discusses benefits of social media like connection and identity.

Nurdle Hunters
Follows volunteers searching for nurdles (tiny plastic pellets) polluting the ocean.

Martin Luther King's Speech ("I Have a Dream")
A civil rights leader (1929–1968) who fought racism and promoted non-violent protest. His speech calls for racial equality and justice in 1960s America.

Emmeline Pankhurst's Letter
Leader of the suffragette movement in the UK, campaigning for women's rights in the early 1900s. Her letter highlights her fight for women's voting rights and social justice.

Key Skills:
DAFOREST (direct address, anecdote, facts, opinion, rhetorical question, emotive language, statistics, triple/rule of three)
PAFT (purpose, audience, form, tone.
Language analysis)

Speaking & Listening.
Pace-The speed at which someone speaks—should be clear and not rushed.
Projection-Speaking loudly enough to be heard clearly.
Eye Contact-Looking at the audience to engage and show confidence.
Clarity-Speaking clearly so every word can be understood.
Volume -How loud or soft your voice is—should suit the setting.
Body Language -Non-verbal communication like posture, gestures, and facial expressions.
Presentation-a structured talk to persuade/inform the audience.

Topics

AI (Artificial Intelligence)
Technology that enables machines to think or learn like humans.

Social Media
Online platforms where people interact, share content, and communicate.

Plastic and Environmental Impact
Plastic is a material made from chemicals, often harmful to nature when not disposed of properly.

Racism
Treating someone unfairly or believing they are less important because of their race or skin colour. It can include actions, words, or beliefs that create inequality between racial groups.

Feminism
The belief that women and men should have equal rights, opportunities, and treatment in all areas of life, including education, work, and politics.

Tasks:

1. **Design a leaflet about the pros/cons of AI. (Self-assessed).**
2. **Write a PETERC to how does Martin Luther King present ideas about hope? (Self-assessed).**
3. **Write an article where you offer your opinion on social media/impact of internet (teacher marked).**
4. **A presentation (paired) on either AI, Social Media, Plastic and impact, Racism, Feminism. (Peer-assessed).**

Key terms

Generative AI: A type of AI that can create new content (like images, text, or music) based on patterns it has learned.
Implications (on society): The effects or consequences something may have on how society functions
Addiction: When someone becomes dependent on something and finds it hard to stop.
Communication: Sharing or exchanging information, thoughts, or feelings.
Offline: Not connected to the internet; can also mean being away from digital devices.
Reconnection: Restoring a relationship or link with someone or something, often after time apart.
Single Use Plastic: Items made of plastic intended to be used once, then thrown away (e.g. straws, bags).
Marine Life: Animals and plants that live in the sea.
Pollution: The introduction of harmful substances into the environment.
Micro Plastics: Tiny plastic particles that pollute the environment, often ingested by marine animals.
Recycling: Converting waste materials into new materials or products to prevent waste.
Discrimination: Unfair treatment of people based on characteristics like race, gender, age, etc.
Prejudice: Judging someone unfairly without knowing them, often based on stereotypes.
Divisions: Differences that cause separation or conflict between people or groups.
Acceptance: Willingness to include or respect others despite differences.
Segregation: The enforced separation of different racial or social groups.
Inequality: Unequal access to rights, opportunities, or resources.
Equality: Ensuring all people are treated fairly and given the same rights and opportunities.
Suffragettes: Women who campaigned for the right to vote, especially in early 20th-century Britain.
Patriarchal: A society or system where men hold most of the power and women are often excluded from it.
Misogyny: Hatred, dislike, or prejudice against women.

English

WHY THIS? Highly relevant, mature, and debate-provoking topics. Enhances writing for audience and purpose: argue, inform, explain. Encourages ethical thinking and evaluative writing.
WHY NOW? Shifts from fiction to modern issues after two dense literary texts — gives a cognitive 'reset' and fresh engagement. Timed well for fostering discursive writing ahead of GCSE Paper 2.
WHAT NEXT? Romeo & Juliet links thematically (societal pressure, feminism/gender, individual versus society). Interleaves thematically with Romantic Poetry (individual versus society, societal pressure). Builds vocabulary, structure, and rhetorical technique needed for GCSE Language Paper 2 SB.

Maths

Y9 – Rates

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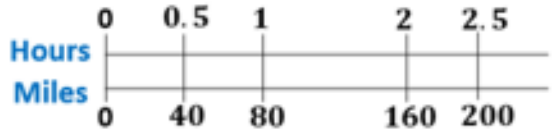
Speed, Distance, Time

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

"per" for every
e.g. 80 miles per hour (mph)
Travel 80 miles every hour



Example

A boat travels at a constant speed for **2.5 hours**
It travels **300 miles.**

Bar models can help to calculate mph

Speed, Distance, Time

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

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

Before calculations – make sure you are working in the same units as the speed

Distance – time graphs

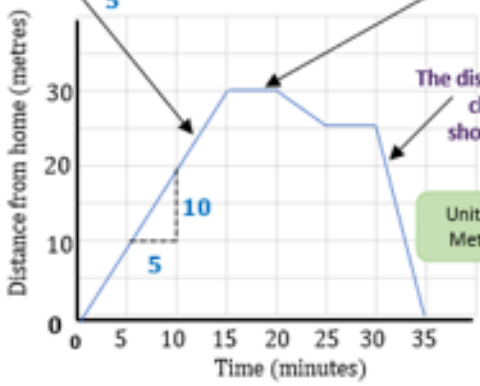
Gradient = speed

The steeper a gradient the faster the speed

$\frac{10}{5} = 2$ metres per min

Horizontal lines represent staying still

The distance coming closer to home shows the return journey

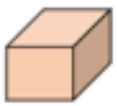


Units are important
Meters per minute

Density, Mass, Volume

$$\text{density} = \frac{\text{mass}}{\text{volume}} \qquad \text{volume} = \frac{\text{mass}}{\text{density}}$$

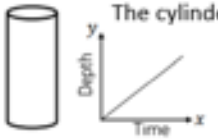
$$\text{mass} = \text{volume} \times \text{density}$$



volume of prism = Area of cross section × length

Flow problems & graphs

This will fill at a constant rate, then as the space decreases it will speed up and the neck of the bottle fill at a faster constant speed



The cylinder will fill at a constant speed

Ensure any volume calculations are the same unit as the rate of flow

Rates of change & units

Common rates of change relationships

- **Speed:** miles **per** hour
- **Exchange rates:** euros **per** pounds
- **Density:** mass **per** volume

Y9 – Standard form

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Positive powers of 10

1 billion – 1 000 000 000 = 10^9

(10 x 10 x 10 x 10 x 10 x10 x 10 x10 x 10 x10)

Multiplication rule for indices:
$10^a \times 10^b = 10^{a+b}$

Division rule for indices:
$10^a \div 10^b = 10^{a-b}$

Standard form with numbers >1

Any number between 1 and 10 → $A \times 10^n$ ← Any integer

Examples

a) 3.2×10^3
$3.2 \times 1000 = 3200$

b) 4.78×10^4
$4.78 \times 10\,000 = 47\,800$

Negative powers of 10

$0.001 = 1 \times \frac{1}{1000} = 1 \times 10^{-3}$

10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
10^1	10^0	10^{-1}	10^{-2}	10^{-3}

Negative powers do not indicate negative solutions

Numbers between 0 and 1

$0.54 = 5.4 \times \frac{1}{10} = 5.4 \times 10^{-1}$

$0.054 = 5.4 \times \frac{1}{100} = 5.4 \times 10^{-2}$

1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
10^0	10^{-1}	10^{-2}	10^{-3}

Order numbers in standard form

10^2	10^1	10^0	10^{-1}	10^{-2}	10^{-3}

6.4×10^{-2} → 0.064

6.4×10^0 → 6.4

6.04×10^2 → 604

6.04×10^{-1} → 0.604

Convert into ordinary numbers

Mental calculations

a) $8 \times 10^5 \times 3$
24×10^5
$2.4 \times 10^1 \times 10^5$
2.4×10^6

b) $(2 \times 10^3) \div 4$
$(2 \div 4) \times 10^3$
0.5×10^3
$5 \times 10^{-1} \times 10^3$
5×10^2

Remember the layout for standard form

Any number between 1 and 10 → $A \times 10^n$ ← Any integer

Addition and Subtraction

a) $(5.1 \times 10^3) + (3 \times 10^4)$
5100 + 30 000
= 35100
$= 3.51 \times 10^4$

b) $(1.2 \times 10^{-2}) + (3 \times 10^{-3})$
0.012 + 0.003
= 0.015
$= 1.5 \times 10^{-2}$

Multiplication and division

a) $5 \times 10^3 \times 9 \times 10^2$
45×10^5
4.5×10^6

b) $3 \times 10^5 \times 8 \times 10^9$
24×10^{14}
2.4×10^{15}

a) $(1.6 \times 10^6) \div (8 \times 10^2)$
0.2×10^4
2×10^3

b) $(2.7 \times 10^8) \div (3 \times 10^3)$
0.9×10^5
9×10^4

Multiplication law for indices
$a^m \times a^n = a^{m+n}$

Division law for indices
$a^m \div a^n = a^{m-n}$

Using a calculator

$1.4 \times 10^5 \times 3 \times 10^6$

Y9 – Maths and money

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Bills and Bank Statements

Bills –
Tell you the amount items cost and can show how much money you need to pay.

Item	Price
Milk	89p
Tea	£1.50
TOTAL	**£2.39**

Bank Statements

Incoming money ↓ Outgoing money ↓

Date	Description	Credit	Debit	Balance
19/09	Salary	£1500		£1500
19/09	Mortgage		£600	£900
25/09	Birthday money	£15		£915

Value Added Tax (VAT)

VAT is payable to the government by a business. In the UK, **VAT is 20%** and added to items that are bought.

Interest

£500 is invested at 15% per annum. Calculate the **compound interest** earned over 3 years.

$$500 \times 1.15^{3} = £760.44$$

3 years ↑ (3)

15% increase ↑ (1.15)

Interest = £760.44 – £500

= £260.44

Spending overseas

x1.14 ↻ ÷1.14

1) £1 = $1.14

a) Convert £43 to $

43 x 1.14 = $49.02

b) Convert $120 to £

120 ÷ 1.14 = £105.26

÷122 ↻ x122

2) ¥122 = £1

a) Convert £59 to ¥

59 x 122 = ¥7198

b) Convert ¥3650 to £

3650 ÷ 122 = £29.92

Wages and taxes

www.gov.uk

Band	Taxable income	Tax rate
Personal Allowance	Up to £12,570	0%
Basic rate	£12,571 to £50,270	20%
Higher rate	£50,271 to £125,140	40%
Additional rate	over £125,140	45%

- 0% tax paid on the first £12 570
- 20% tax paid on the next £37 700
- 40% tax paid on the next £74 870

1) **£60 000**

£12 570 (0%) | **£37 700** (20%) x 0.2 = **£7540** | **£9730** (40%) x 0.4 = **£3892**

Total tax paid = **£11,432**

2) **£85 000**

£12 570 (0%) | **£37 700** (20%) x 0.2 = **£7540** | **£34 730** (40%) x 0.4 = **£13 892**

Total tax paid = **£21,432**

3) **£27 000**

£12 570 (0%) | **£14 430** (20%) x 0.2 = **£2886**

Total tax paid = **£2886**

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Y9 – Straight line graphs

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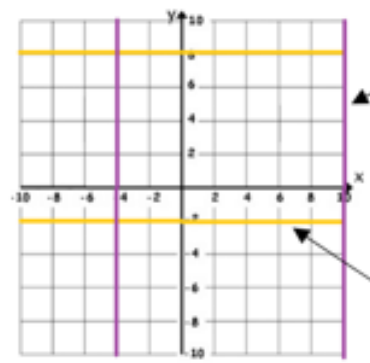
Lines parallel to the axes



All the points on this line have a x-coordinate of 10

$x = 10$

Lines parallel to the y-axis take the form x = a and are **vertical**

Lines parallel to the x-axis take the form y = a and are **horizontal**

$y = -2$

All the points on this line have a y-coordinate of -2

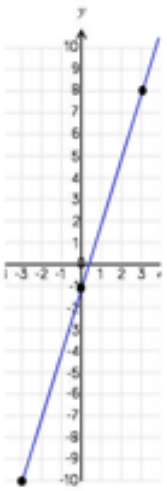
Plotting y = mx + c graphs

$y = 3x - 1$

x	−3	0	3
y	-10	-1	8

× 3 −1

Coordinate (-3, -10)

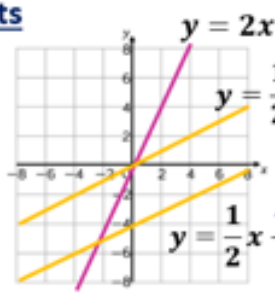


Remember to join the points to make a line

Compare gradients

$y = mx + c$

The **coefficient** of x tells us the gradient of the line

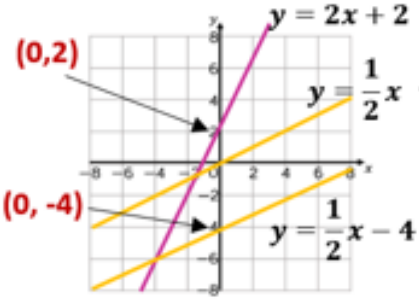


Positive gradients

Negative gradients

Parallel lines have the **same** gradient

Compare Intercepts



$y = mx + c$

y-intercept

The point at which the line crosses the y-axis (0, c)

y = mx + c

y and x are **coordinates**.

$y = mx + c$

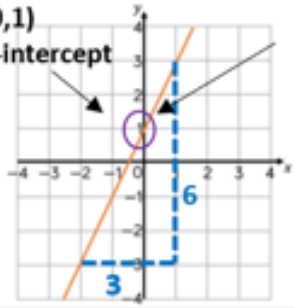
gradient *y-intercept*

The equation of a line can be rearranged:

$y = c + mx$

$c = y - mx$

Find the equation from a graph



$y = 2x + 1$

$gradient = \frac{6}{3} = 2$

Positive gradients

Negative gradients

Real life graphs

A plumber charges a £25 callout fee, and then £12.50 for every hour. Complete the table of values to show the cost of hiring the plumber.

Time (h)	0	1	2	3	8
Cost (£)	£25				£125

y-intercept is the **minimum charge**

Gradient is the **price per mile**

Direct Proportion graphs

To represent **direct proportion** the graph must start at the **origin**.

A box of pens costs £2.30

Complete the table of values to show the cost of buying boxes of pens.

Boxes	0	1	2	3	8
Cost (£)		£2.30			

Gradient is the **price per pen**

Y9 – Ratio and proportion

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Direct Proportion

4 cans of pop = £2.40

Multiplicative Change
As one variable changes the other changes at the same rate.

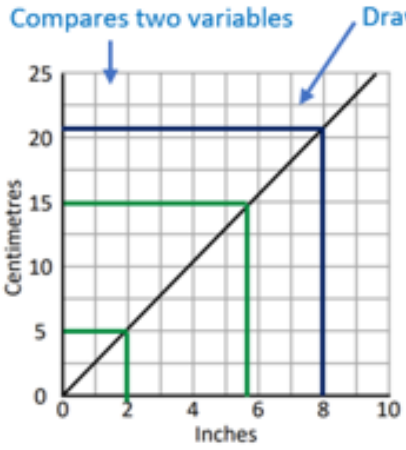
4 cans of pop = £2.40 → 2 cans of pop = ... (×0.5) **Multiplier = 0.5**

4 cans of pop = £2.40 → 12 cans of pop = ... (×3) **Multiplier = 3**

Sometimes this is easiest if you work out how much **one unit** is worth first
E.g. 1 can of pop = £0.60

Conversion Graphs

This is always a **straight line** because **as one variable increases so does the other at the same rate**



Convert:

a) 2 inches to cm
5 cm

b) 15 cm to inches
5.7 inches

c) 80 inches to cm
8 inches = 21 cm
80 inches = 210 cm

Inverse Proportion

Examples of inversely proportional relationships

- Time taken to fill a pool and the number of taps running.
- Time taken to paint a room and the number of workers

As **one variable is multiplied** by a scale factor the **other is divided** by the same scale factor

E.g. T is inversely proportional to G.
When T=2 then G=20

		÷2	×4	
T	1	2		8
G	40	20		5
		×2		÷4

Sharing into a given ratio

E.g. James and Lucy share £350 in the ratio 3:4

James = £150
Lucy = £200

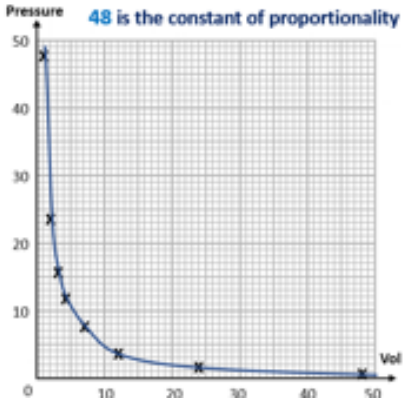
E.g. Tom and Mary share £90 in the ratio 3:2

Tom = £54
Mary = £36

Inverse Proportion

1 x 48 = 48 and 4 x 12 = 48

V	1	2	3	4	6	12	24	48
P	48	24	16	12	8	4	2	1



Ratio and algebra

1) $x : y$ is equivalent to 2 : 5
Find the values of x and y if:

a) $x + y = 42$

x	6	6				42
y	6	6	6	6	6	

$x = 12$
$y = 30$

b) $y - x = 12$

x	4	4			12
y	4	4	4	4	4

$x = 8$
$y = 20$

2) $x : y$ is equivalent to 7 : 3
Find the values of x and y if:

a) $x + y = 50$

x	5	5	5	5	5	5	5	50
y	5	5	5					

$x = 35$
$y = 15$

b) $x - y = 56$

x	14	14	14	14	14	14	14	
y	14	14	14					56

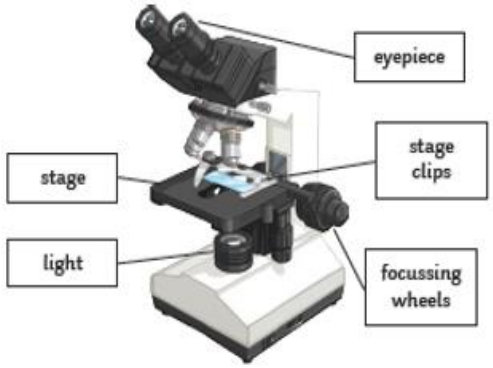
$x = 98$
$y = 42$

Building Blocks of Life 1 Knowledge Organiser

Required Practical

Microscopy Required Practical

- Includes preparing a slide, using a light microscope, drawing any observations – use a pencil and label important observations.



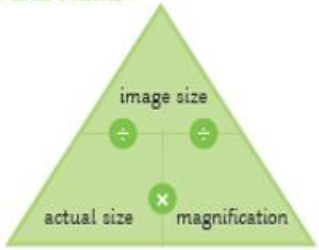
Specialised Cells

When a cell changes to become a specialised cell, it is called differentiation.

Specialised Cell	Function	Adaptation
sperm	To get the male DNA to the female DNA.	Streamlined head, long tail, lots of mitochondria to provide energy.
nerve	To send electrical impulses around the body.	Long to cover more distance. Has branched connections to connect in a network.
muscle	To contract quickly.	Long and contain lots of mitochondria for energy.
root hair	To absorb water from the soil.	A large surface area to absorb more water.
phloem	Transports substances around the plant.	Pores to allow cell sap to flow. Cells are long and joined end-to-end.
xylem	Transports water through the plant.	Hollow in the centre. Tubes are joined end-to-end.

Equations and Maths

Equation



Maths Skills

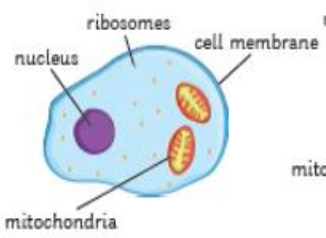
Conversions:
Micrometres to millimetres: divide by 1000.

Standard Form:
$0.003 = 3 \times 10^{-3}$

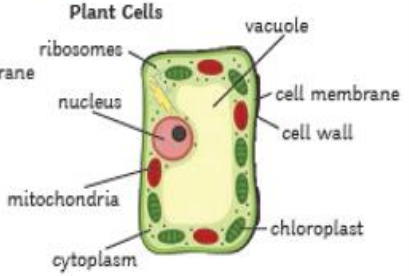
$5.6 \times 10^{-5} = 0.0056$

Prokaryotic and Eukaryotic Cells

Animal Cells



Plant Cells

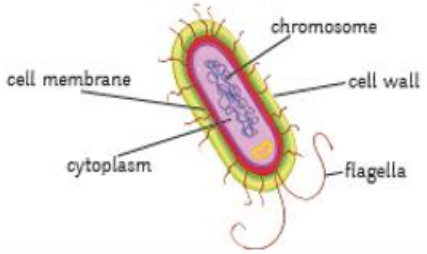


Plant and animal cells have similarities and differences:

	Animal	Plant
nucleus	✓	✓
cytoplasm	✓	✓
chloroplast	X	✓
cell membrane	✓	✓
permanent vacuole	X	✓
mitochondria	✓	✓
ribosomes	✓	✓
cell wall	X	✓

Bacterial Cells

Bacterial cells do not have a true nucleus, they just have a single strand of DNA that floats in the cytoplasm. They contain a plasmid.



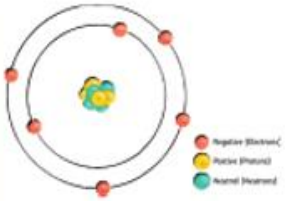
Science

Builing Blocks of Matter 1 Knowledge Organiser

Atoms

Contained in the nucleus are the **protons** and **neutrons**. Moving around the nucleus are the **electron** shells. They are negatively charged.

Particle	Relative Mass	Charge
proton	1	+1
neutron	1	0
electron	Very small	-1



Overall, atoms have no charge; they have the same number of protons as electrons. An ion is a charged particle - it does not have an equal number of protons to electrons.

Atomic Number and Mass Number

Elements

Elements are made of atoms with the same atomic number. Atoms can be represented as symbols.

N = nitrogen **F** = fluorine **Zn** = zinc **Ca** = calcium

Isotopes – an isotope is an element with the **same number of protons** but a **different number of neutrons**. They have the same atomic number, but different mass number.

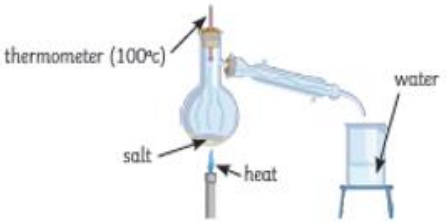
Isotope	Protons	Electrons	Neutrons
$^{1}_{1}H$	1	1	1 - 1 = 0
$^{2}_{1}H$	1	1	2 - 1 = 1
$^{3}_{1}H$	1	1	3 - 1 = 2

Compounds – a compound is when two or more elements are chemically joined. Examples of compounds are carbon dioxide and magnesium oxide. Some examples of formulas are CO_2, NaCl, HCl, H_2O, Na_2SO_4. They are held together by chemical bonds and are difficult to separate.

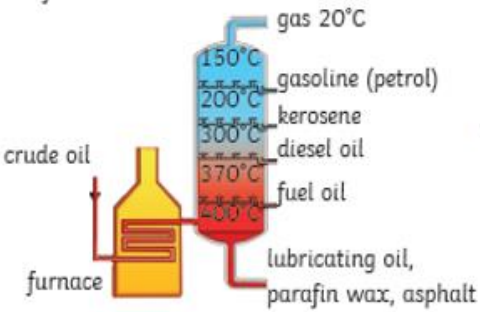
Distillation

To separate out mixtures of liquids.

1. **Simple distillation** – separating a liquid from a solution.



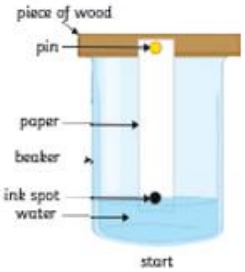
2. **Fractional distillation** – separating out a mixture of liquids. Fractional distillation can be used to separate out crude oil into fractions.



Mixtures, Chromatography and Separation

Mixtures – in a mixture there are no chemical bonds, so the elements are easy to separate. Examples of mixtures are air and salt water.

Chromatography – to separate out mixtures.



Filtration – to separate solids from liquids.

Evaporation – to separate a soluble salt from a solution; a quick way of separating out the salt.

Crystallisation - to separate a soluble salt from a solution; a slower method of separating out salt.

Separating out salt from rock salt:

1. Grind the mixture of rock salt.
2. Add water and stir.
3. Filter the mixture, leaving the sand in the filter paper
4. Evaporate the water from the salt, leaving the crystals.

Physical Building Blocks 1 Knowledge Organiser

Required Practical

Measuring the density of a regularly shaped object:

- Measure the mass using a balance.
- Measure the length, width and height using a ruler.
- Calculate the volume.
- Use the density ($\rho = m/V$) equation to calculate density.

Measuring the density of an irregularly-shaped object:

- Measure the mass using a balance.
- Fill a eureka can with water.
- Place the object in the water - the water displaced by the object will transfer into a measuring cylinder.
- Measure the volume of the water. This equals the volume of the object.
- Use the density ($\rho = m/V$) equation to calculate density.

Density

Density is a measure of how much mass there is in a given space.

Density (kg/m^3) = mass (kg) ÷ volume (m^3)

A more dense material will have more particles in the same volume when compared to a less dense material.

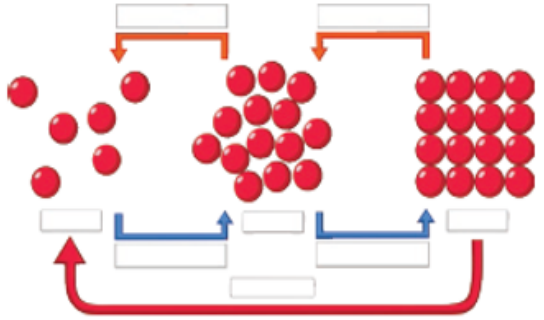
Particles

Solids have strong forces of attraction. They are held together very closely in a fixed, regular arrangement. The particles do not have much energy and can only vibrate.

Liquids have weaker forces of attraction. They are close together, but can move past each other. They form irregular arrangements. They have more energy than particles in a solid.

Gases have almost no forces of attraction between the particles. They have the most energy and are free to move in random directions.

Changing State



If a system gains more energy, it can lead to a change in temperature or change in state. If the system is heated enough, then there will be enough energy to break bonds.

When something changes state, there is no chemical change, only physical. No new substance is formed. The substance will change back to its original form. The number of particles does not change and mass is conserved.

Density

The density of an object is $8050 kg/m^3$ and it has a volume of $3.4 m^3$ - what is its mass in kg?

8050 = mass ÷ 3.4

8050 × 3.4 = mass

27 370kg

KNOWLEDGE ORGANISER Year 9: Prophecy & Promise

Key Women of the Bible:

Eve	OT	First Woman in the bible	
Sarah	OT	Wife of Abraham and mother to Isaac	
Rebekah	OT	Mother to Jacob (later called "Israel")	
Miriam	OT	Sister to Moses and a key part of the Exodus	
Esther	OT	She saved the Israelites from destruction	
Deborah	OT	The only female judge of Israel	
Hannah	OT	Mother of the Great Samuel!	
Mary	NT	Mother of God	
Elizabeth	NT	Cousin of Mary, visited after the annunciation	
Mary Magdalene	NT	Close companion and disciple of Jesus	

Sources of Wisdom

The Protoevangelium — **Genesis 3:15 OT**
(The first reference to Salvation)

The story of Deborah — **Judges 4 OT**
(Deborah saves Israel)

The Song of Hannah — **1 Samuel 2 OT**
(God calls Jeremiah to prophecy)

The Woman and the Dragon — **Revelation 12: 4-5 NT**
(The fulfilment of Gen 3:15)

The Annunciation — **Luke 1: 26-38**
(The Angel Gabriel speaks to Mary)

The Magnificat — **Luke 1: 46-55**
"Mary's revolutionary song of praise"

The Four Marian Dogmas — **CCC 491, 495, 506, 966**
"Mother of God, Immaculate Conception, Assumption & Ever Virgin)"

THE FOUR MARIAN DOGMAS

"MOTHER OF GOD"
Mary is the Mother of God, confirmed by the Church in 431AD.


"IMMACULATE CONCEPTION"
Although fully human and NOT divine, Mary was conceived and born without Original Sin.


"ASSUMPTION"
Mary's body and soul were physically assumed to heaven at the end of her life.


EVER-VIRGIN
Mary remained a virgin all her life, confirmed by the CCC.


Core Vocabulary

Typology 	Making allegorical connections between the events of Christ's life and the stories of the Old Testament
Protoevangelium 	Genesis 3:15. The first biblical reference to the "good news" of Salvation
Immaculate Conception 	The Catholic belief that Mary was conceived without the stain of Original Sin.
Magnificat 	The Song of Mary found in the Gospel of St Luke
Dogma 	An infallible teaching from the Catholic Church that cannot be wrong.
Marian 	A word meaning "something which relates to the person of Mary"
Assumption 	The Catholic belief that Mary was physically taken up to heaven at the end of her life.
Incarnation 	The Christian belief that God took on human flesh in the person of Jesus ~ FULLY human and FULLY divine.

FORMS OF MARIAN DEVOTION

Artwork	Music	Prayer	Procession	Pilgrimage
Such as the statue Pieta	Such as the Ave Maria	Such as the Rosary	Such as May Day and Whit	Such as to Lourdes

RE

Unit 3: Second World War

Big Question: *'Which allied power played the biggest role in defeating Germany'?*

Timeline

1939-1945	The Second World War.
1940	Battle of Britain.
1942-43	Battle of Stalingrad.
1943	Battle of Kursk.
1944	D-Day
1945	Anglo-American forces cross the River Rhine
1945	The two leading Soviet Generals race for Berlin.

Key Figures

Winston Churchill was Prime minister of Britain between 1940-1945 taking over from Neville Chamberlain.

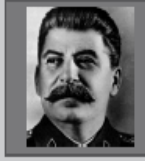
Churchill spoke out a lot against the Nazis a lot in the 1930s and refused to sign a peace treaty with Germany after the Fall of France (1940).

Adolf Hitler became Fuhrer (leader) of Germany in 1934. He was originally voted into power by the German people in 1933.

Hitler was well known for his hatred of Jews and others and believed Germany should take revenge on other countries after the First World War.

Franklin Delano Roosevelt is still to this day arguably America's most popular President. He became President in 1932 and remained till his death in 1945.

During the Second World War before America joined, Roosevelt sent machines and weapons to help Britain in its fight against Germany. He was a strong advocate for America joining the war.



Joseph Stalin was the Communist dictator of Soviet Russia from 1924 to his death in 1953.

Stalin and Hitler were political enemies. When the Nazis invaded Russia they were brutal. When the Russian's pushed them back to Germany they were just as harsh.

Key Terms

Military Operation	A military operation is the coordinated military actions of a country, in response to a developing situation.
Artillery	Artillery are ranged weapons that launch munitions far beyond the range and power of infantry firearms.
Retreat	Withdraw from enemy forces as a result of their superior power or after a defeat.
Outflank	Move round the side of (an enemy) so as to outmanoeuvre them.
Dog fights	A close combat between military aircraft.
Amphibious landings	A military action of coordinated land, sea, and air forces organized for an invasion.
Lebensraum	The territory which a group, state, or nation believes is needed for its natural development.
Division	A division is a large military unit or formation, usually consisting of between 6,000 and 25,000 soldiers.
Ally	A person or group that provides assistance and support in an ongoing effort,
Anglo-American	Relating to both Britain and the USA.
Radar	A device that sends out radio waves for detecting aircraft.

Key Themes

Overview

- This topic will focus on the four main countries who took part in the fighting in Europe during the Second World War.
- We will study at least two events about each country and how they had an impact on defeating Germany in May 1945.
- Pupils must decide by the end of this topic which country they think played this biggest role in defeating Germany.

Britain

- **Allies:** USA + Soviet Russia (USSR).
- **In the war:** September 1939 - August 1945.
- **Key operations:** Battle of Britain, D-Day.

Germany

- **Allies:** Italy + Japan.
- **In the war:** September 1939 - August 1945.
- **Key operations:** Fall of France, Operation Barbarossa.

Soviet Russia (USSR)

- **Allies:** Britain + USA.
- **In the war:** July 1940 - August 1945.
- **Key operations:** Battle of Stalingrad, Battle of Kursk.

United States of America (USA)

- **Allies:** Britain + Soviet Russia (USSR).
- **In the war:** December 1941 - August 1945.
- **Key operations:** D-Day, Battle of the Bulge.

History

Geography

Year 9 Tectonic Knowledge Organiser

Big Question: *"How do physical and human factors influence the impacts of tectonic disasters?"*

Key Term Definitions:

Tectonic Plates: Moving pieces of rock that make up the earth's crust

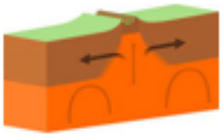
Convection currents: The rising and sinking of magma in the mantle that moves tectonic plates

Earthquake: Earthquakes are the unexpected uncontrollable shaking of the ground.

Volcano: A volcano is an opening in the Earth's crust, which allows hot magma, ash and gases to escape from below the surface.

Tsunami: A huge sea wave often caused by an underwater disturbance such as an earthquake.

Types of Plate Boundary



Constructive

Hazards: earthquakes & shield volcanoes

Destructive

Hazards: earthquakes & composite volcanoes & tsunamis

Conservative

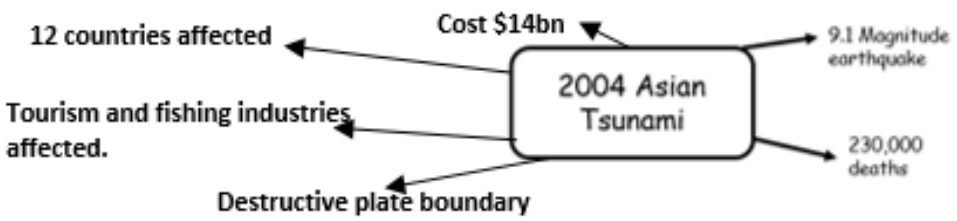
Hazards: earthquakes

Indicator	Haiti	New Zealand
Population	11.4 million	5.1 million
GDP/Capita	$1,829	$48,781
Literacy Rate	61%	99%
Life Expectancy	64 years	82 years
People per doctor	1,800	280
Access to electricity	40%	100%

Physical Factors that can influence tectonic disaster:

- Magnitude of the event
- Depth of the focus
- Distance from epicentre
- Geology

Haiti (2010)		Christchurch (2011)	
Magnitude	7	**Magnitude**	6.3
Deaths	220,000	**Deaths**	181
Injuries	300,000	**Injuries**	2000
Primary effect	100,000 homes destroyed	**Primary effect**	Landslides in some suburbs caused serious damage to buildings
Secondary effect	2 million without food and water. Tourism declined.	**Secondary effect**	6 story CTV building caught fire and collapsed
Response	Emergency rescue teams arrived from other countries	**Response**	



Year 9 Development Knowledge Organiser

Big Question: *"How does development affect life in different parts of the world?"*

Key Term Definitions:

GDP: Gross Domestic Product – Total sum of goods/services sold by a country
GDP/Capita: A country's GDP divided by it's population
Life Expectancy: the average age someone is expected to live to
Literacy Rate: The amount of adults who can read and write over the age of 14
Infant Mortality Rate:the amount of babies under 1 who die before their 1st birthday
HIC: High Income Country – A wealthy country with high GDP
LIC: Low Income Country – A poorer country with a low GDP
NEE: Newly Emerging Economy – A country rapidly growing from poorer to richer

Reasons some countries can't develop:

- Poor climate
- War/Conflict
- Colonialism
- Natural disasters
- No trade links

India's Development

Statistic	1980	2018
Population	696 million	1.4 billion
GDP/Capita	$557	$7,183
Life expectancy	54	68
Literacy rate	41%	81%
Urban population	23%	33%
Infant mortality rate (per 1000)	114	32

Strategies to help poorer countries

Strategy	How does it help?	Limitations/Issues
Fairtrade	Helps farmers to get minimum price for their produce	Low demand for Fairtrade as products expensive
Debt Relief	Countries can spend money on development instead of debt repayment	Become reliant
Aid	Money is invested to fund development projects to targeted areas of need	Becomes reliant Corruption

How does Unilever help India?

Positives of Unilever:

- Run hygiene programmes that have improved lives of 115m people
- Employs 16,000 people
- The 'Shakti Project' – small loans for rural women

Negatives of Unilever:

- Employees often work long hours for low wages
- Lots of mercury leaks leading to brain damage

MFL

TV shows:

- El anuncio 

- Una serie de policías 
- Un programa de deportes 
- Un concurso 
- Un documental 
- Una comedia 

- Una telenovela 

- Un programa de tele-realidad 

- El tiempo 
- Una ciencia ficción 
- Los dibujos animados 

Films:

1. Las películas de amor 
2. Las películas de acción 

3. Las películas de terror 
4. Las películas de ciencia-ficción 
5. Las películas de guerra 
6. Las películas del oeste 
7. Las películas de artes marciales 

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

TV/Film –Y9 HT2

IMPORTANT VOCAB

¿Qué ves? - What do you watch?

Veo—I watch

Porque es... - *because it is*

Me gusta / no me gusta... - I like / I don't like...

Me gustaría ver... - I would like to watch...

Time phrases:

Normalmente—normally

Siempre—always

Nunca—never

A veces—sometimes

Adjectives:

 aburrido/a .....

 divertido/a .....

 malo/a .....

 bueno/a .....

Adjectives:

 informativo/a .....

 educativo/a .....

 emociónate .....

guay .....

Jobs —Y9 HT4

IMPORTANT VOCAB

¿Qué te gustaría ser? - What would you like to be?

Sería—It would be

Jobs:

Abogado/a 

Actor / actriz 

Camarero/a 

Cantante 

Cocinero/a 

Dentista 

Diseñador(a) 

Enfermero/a 

Futbolista 

Fontanero(a) 

Ingeniero/a 

Médico/a 

Periodista 

Policía 

Profesor(a) 

Veterinario/a 

Reparto periódicos	
Lavo el coche	
Lavo la ropa	
Limpio la casa	
Trabajo en el jardín	
Paso la aspiradora	
Plancho la ropa	
Pongo la mesa	

Maquillaje 

Ropa 

Videojuegos 

Revistas 

Comida y bebida 

Entradas 

Zapatillas 

Verbs:

Trabajo —I work

Es —it is

Compro - I buy

Adjectives:

activo/a ……

ambicioso/a ……

creativo/a ……

fuerte ……

organizado/a ……

hablador(a) ……

trabajador(a)……

independiente……

FOOD & DRINK

A. FOOD

le pain	bread
le fromage	cheese
le jambon	ham
la viande	meat
le poulet	chicken
le boeuf	beef
le porc	pork
le poisson	fish
le thon	tuna
les pommes de terre	potatoes
les frites	chips
la lait	milk
la glace	ice cream
le yaourt	yoghurt
le gâteau	cake
l'eau minerale	water
les biscuits	biscuits
les pâtes	pasta
le riz	rice

B. LES REPAS

les repas	meals
le petit déjeuner	breakfast
le déjeuner	lunch
le dîner	dinner
le café	coffee
le thé	tea
le sucre	sugar
le jus d'orange	orange juice
le vin blanc/rouge	white/red wine
les céréales	cereal
le pain grillé	toast

C. FRUIT & VEG

les fruits	fruit
les fraises	strawberries
les bananes	bananas
l'ananas	pineapple
le melon	melon
la pomme	apple
la pêche	peach
les poires	pears
les oranges	oranges
le citron	lemon
les legumes	vegetables
les oignons	onions
les haricots verts	green beans
les carottes	carrots
le concombre	cucumber
la laitue	lettuce

D. ADJECTIFS

frais/fraîche	fresh
parfait(e)	perfect
barbant(e)	boring
dégoutant(e)	disgusting
délicieux/	delicious
épicé(e)	spicy
fort(e)	strong
cher(e)	expensive
peu varié(e)	not much choice
de mauvaise	poor quality
impoli	impolite
sale	dirty
sucré	sweet
salé	salty
propre	clean

Positive opinions
J'aime
J'aime beaucoup
J'adore
Je préfère

Negative opinions
Je n'aime pas
Je déteste

+ le/ la/ les

SOME	
de + le	du
de + la	de la
de + les	des

Je mange du pain avec de la confiture.

plus ____ que
= more ____ than

moins ____ que
= less ____ than

e.g. J'aime le poulet plus que le boeuf.
I like chicken more than beef.

Intensifiers
Très = very
Beaucoup = a lot
Un peu = a little
Assez = quite
Trop = too

FOOD & DRINK

Qu'est-ce que vous prenez?
What are you having?

Je prends...
I'm having...

E. AU RESTAURANT/MARCHÉ

le plat principal	main course
l'entrée	Starter
le dessert	dessert
la carte	the menu
les serveurs	the waiters
le service	the service
l'ambiance	the atmosphere
un restaurant lo-cale/chinois/ indien/italien	local/Chinese/ Indian/Italian restaurant
Qu'est-ce que vous voulez/désirez?	What would you like?
Et avec ça?	Anything else?
Avez-vous?	What are you having?
Donnez-moi...	Give me...
s'il vous plaît	please
Comme entrée...	As a starter...

F. LES QUANTITÉS

un kilo de	a kilo of
cinq cent grammes de	500g of
une tasse de	a cup of
une boîte de	a tin of
un carton de	a box of
un litre de	a litre of
une bouteille de	a bottle of

G. LA SANTÉ

manger sainement	to eat healthily
être en bonne santé	to be in good health
surveiller mon poids	to watch my weight
un regime équilibré	a balanced diet
Ce n'est pas bon pour la santé	It's bad for your health

Frequency Phrases
Normalement = normally
En général = in general
Tous les jours = every day

Connectives
Et = and
Aussi = also
De plus = Moreover
Cependant = however
Néanmoins = nevertheless

ESSENTIAL VERBS

AVOIR—TO HAVE

J'ai	I have
Tu as	You have (s)
Il/elle a	He/she has
Nous avons	We have
Vous avez	You have (pl)
Ils/elles ont	They have

ÊTRE—TO BE

Je suis	I am
Tu es	You are (s)
Il/elle est	He/she is
Nous sommes	We are
Vous êtes	You are (pl)
Ils/elles sont	They are

I. KEY VERBS (PRESENT)

Je bois	I drink
Je mange	I eat
J'aime	I like
J'adore	I love
Je préfère	I prefer
C'est	It is
Il y a	There is/are
Je voudrais	I would like
J'ai faim	I'm hungry
J'ai soif	I'm thirsty
J'ai besoin de	I need

H. COMPLEX PHRASES

Ce que j'aime le plus c'est...	What I like the most is...
Ce que j'aime le moins c'est...	What I like the least is...
Ce que je préfère c'est...	What I prefer is...

J. KEY VERBS (PAST)

J'ai mange	I ate
J'ai bu	I drank
J'ai pris	I had
J'ai aimé	I liked
J'ai préféré	I preferred
J'ai choisi	I chose
C'était	It was

Python Programming
Year 9 Spring Term

I will be able to

- Set up the python interface properly
- Understand how the colour coding system works in python code
- Read code and explain what it does
- Identify bugs in code
- Remove errors from code
- Write simple code for a specific task

Keywords	
Sequence	When instruction are followed in order from top to bottom
Selection	Decisions in code that can lead the code to take different paths depending on values of variables that are either inputted or changed in the code **if, elif, else**
Iteration	The process of repeating coding instructions. This can be done by counter loops (repeat for a set number of times) Or condition controlled (repeat until a value of a variable changes)
Variable	A value that can be changed
Data Type	int (whole numbers), float (decimal numbers), str (strings – text), boolean (True or False)
Debugging	Identify and remove errors from code

Programming Commands

Command	Description
print ()	Outputs whatever is in the parentheses to the screen.
If	Decision command, it must be followed by a question. If the answer to the question is true the next line is run.
elif	Decision command used when a second question is asked. Multiple choice. The command below the elif will be run when the answer is true
else	This is the decision command used when all the
input	num = int(input()) – this allows for users to put variables in
for	The command to make a repeat (used for counter loops)
while	The repeat command (used for condition loops)
=	Used to declare a variable
==	To check if to values are equal (True or False)
!=	To check if two values are not equal (True or False)
>,<, >=, <=	Greater than, less than, greater or equal, less that or equal

PRIOR LEARNING

HOW COMPUTERS WORK (y9 Autumn)
Binary
Boolean Logic

CURRENT TOPIC

Python Programming

NEXT TOPIC

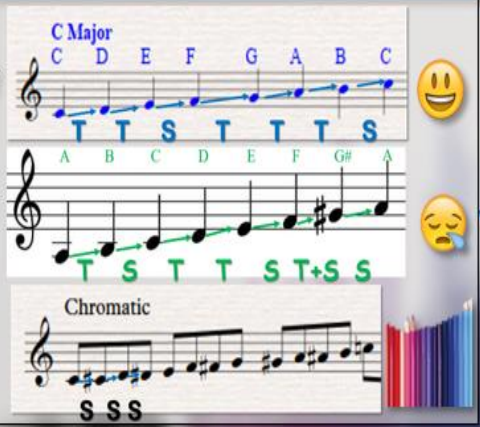
Searching and Sorting

Computing

Music Knowledge Organiser

Scales

A scale is a collection of notes used to create a piece of music



Leitmotif

A Leitmotif is a frequently recurring short melodic or harmonic idea which is associated with a character, event or object.

It is a characters theme tune.
The Leitmotif can be used to describe a character, e.g. happy, evil, silly, sad...

Year 9
Unit 3
Music and the Moving Image

Harmony

Chords use three notes at once. **Major** chords are happier sounding, **minor** chords are sad sounding

Concord is when the notes in the chord feel stable, **discord** is when there is a note creating dissonance (unpleasant sound).

Key Composers

John Williams
Star Wars
Jaws
Harry Potter
Indiana Jones
Superman, E.T.

Danny Elfman
Mission
Impossible
Batman Returns
Men in Black
Spider Man

Hans Zimmer
The Lion King
Gladiator
Dunkirk
Blade Runner No
Time to Die

Purpose	Heroic Melody	Villain Melody	Tonality	Listening	Assessment

Music

D&T/Art Knowledge Organiser Name:

Year: *9* Subject: *Art* Period of Learning: *African Art*

Lino printing

Lino cutting

Lino print

African mask

Fabric design

African pattern

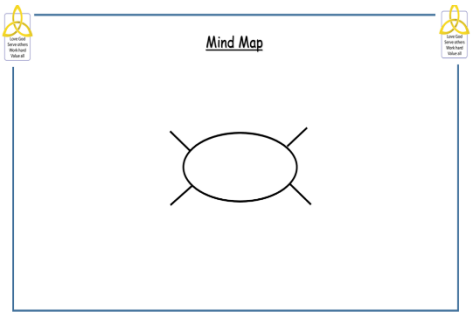
Word	Definition
African Art	Many African artworks were (and continue to be) created to serve a social, religious, or political function.
Fabric design	Fabric Design is the process of creating and preparing designs for fabric production.
African pattern	African art patterns can be geometric and symbolic. Geometric patterns encompass a wide range of shapes, including diamonds, triangles, zigzags, chevrons, circles, and waves.
African masks	African masks symbolize the spirits of people or things. Masks are deeply rooted in African history of animism, or the worship of the natural world.
Lino	The soft linoleum can be cut away more easily than a wood-block and in any direction (as it has no grain) to produce a raised surface that can be inked and printed.
Repeat pattern	A Repeat Pattern is the repetition of lines, shapes, tones, colours, textures and forms.
Lino cutting	Linocut printing involves cutting away from a block of linoleum, and inking and printing the uncut areas. When you place your carved, inked up block face down on a sheet of paper, the printed image will appear as a mirror image to how you have carved your block.

Art

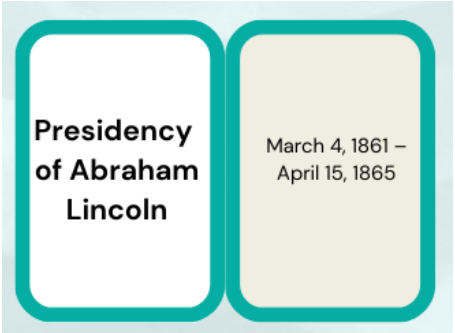
Top Tips!

How to use these KO's to revise

- Highlight the key words
- ***Make a mind map***



- ***Make some flash cards*** – Put the key word on one side and the facts/ important information on the back (just the key info!) – use the Leitner system shown to you in forms.



- ***Self-test*** – memorise the KO organiser, turn it over and then see how much you can remember
- ***Peer test*** – memorise the KO organiser then get someone else to test you (friend, family etc)