Year 9
Term 1B - 2022-2023

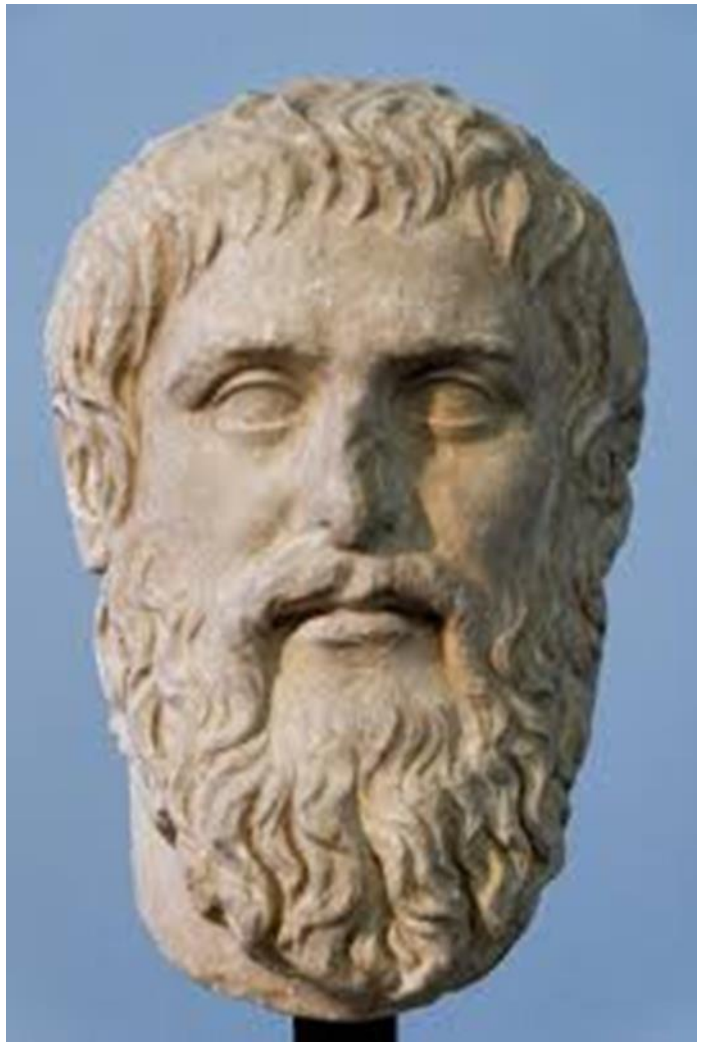
Name _____

Form _____

St Cuthbert's Catholic High School

MORE THAN A SCHOOL

St Cuthbert's
Catholic High School
Live life in all its fullness



" Knowledge is true opinion."

Plato

(research 10 facts about Plato)

Year 9
Knowledge Organiser: Term 1B

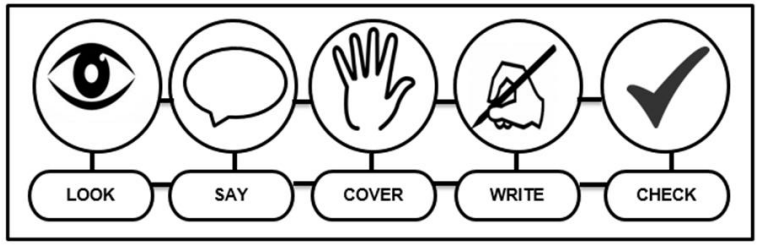
Instructions for using your Knowledge Organiser

The timetable on the next page tells you which subjects you should be studying on which days (it doesn't matter if you have that subject on that day or not, you should follow the timetable).

You are to use your exercise book to show the work you have done. Each evening you should start a new page and put the date clearly at the top.

You need to bring your KO and exercise book with you EVERY DAY to school. Your KO and exercise book will be checked regularly in form time.

You will also be tested in your lessons on knowledge from the organisers.



You must use the revision strategy Look – Say – Cover – Write - Check to learn the knowledge. You can also use your KOs and book in a number of different ways but you **should not just copy** from the Knowledge Organiser into your book.

Presentation

You should take pride in how you present your work:

- Each page should be clearly dated at the top right hand side with the **Subject** written in the middle.
- Half way down the page a line should divide it in two with **Next Subject** written above the dividing line.
- Each half of the page should be neatly filled with evidence of self-testing. There should be an appropriate amount of work.
- Failure to show pride in your presentation or wasting space on your page with large writing or starting a number of lines down will result in a **negative AtL.**

Year 9 Knowledge Organiser Homework Timetable

You are expected to study the subjects shown on your timetable each day. You need to spend 20 minutes on each subject and you will need to evidence your work in your exercise book.

WEEK A	Subject 1	Subject 2	Subject 3
MONDAY	English	MFL	Geography
TUESDAY	Science	Maths	PD
WEDNESDAY	History	Music	Science
THURSDAY	RE	Maths	Food
FRIDAY	Computing	Technology	English

WEEK B	Subject 1	Subject 2	Subject 3
MONDAY	English	Drama	Geography
TUESDAY	Science	Maths	RE
WEDNESDAY	History	PE	Science
THURSDAY	RE	Maths	MFL
FRIDAY	Computing	Art	English

Reading Log

"The more that you read, the more things you will know. The more that you learn, the more places you'll go"

Dr Seuss

Use this reading log to record the books you read and how long you have spent reading.

Week	MON	TUE	WED	THURS	FRI	SAT	SUN	Book(s) read (title and author)	Time spent reading	Parent comment/signature
Week 1										
Week 2										
Week 3										
Week 4										
Week 5										
Week 6										
Week 7										
Week 8										

Year 9 English Term 1B: War Poetry and Fiction

What is poetry? literary work in which the expression of feelings and ideas is given intensity by the use of distinctive style and rhythm; poems collectively or as a genre of literature.

Key words:

Conflict
Pride
Patriotic
Propaganda
Rhyme
Rhythm
Satirical/Satire
Tension
Guilt

Poetic Techniques

Language

Metaphor – comparing one thing to another using 'is' although it is not literally applicable.
Simile – comparing two things using 'like' or 'as'.
Personification – giving an inanimate object human characteristics/qualities.
Imagery – language that makes us imagine a sight (visual), sound (aural), touch (tactile), smell, taste.
Tone – the mood or feeling created in a poem.
Pathetic Fallacy – giving emotion to whether to create a mood within a text.
Irony – language that says one thing but implies the opposite e.g. sarcasm.
Colloquial Language – informal language, usually creates a conversational tone or authentic voice.
Onomatopoeia – language that sounds like its meaning.
Alliteration – words that are close together start with the same letter or sound.
Sibilance – the repetition of s or sh sounds.
Assonance – the repetition of similar vowels and sounds.
Consonance – repetition of consonant sounds.
Plosives – short burst of sound: t, k, p, d, g or b sound.

Structure

Stanza – a group of lines in a poem.
Repetition – repeated words or phrases.
Enjambment – a sentence or phrase that runs onto the next line.
Caesura – using punctuation to create pauses or stops.
Contrast – opposite concepts/feelings in a poem.
Juxtaposition – contrasting things placed side by side.
Oxymoron – a phrase that contradicts itself.
Anaphora – when the first word of a stanza is the same across different stanzas.
Epistrophe – when the final word of a stanza is the same across different stanzas.
Volta – a turning point in a poem.

Form

Speaker – the narrator, or person in the poem.
Free verse – poetry that doesn't rhyme.
Blank verse – poem in jambic pentameter, but with no rhyme.
Sonnet – poem of 14 lines with clear rhyme scheme.
Rhyming couplet – a pair of rhyming lines next to each other.
Meter – arrangement of stressed/unstressed syllables.
Monologue – one person speaking for a long time.

Year 9 English Term 1B: War Poetry and Fiction

SINGLE POEM ESSAY:
20 mins (including planning time)

Intro - link to question. Explain the overall meaning of the poem briefly.
Throughout the essay – choose relevant quotes and analyse the language, structure and effect of these quotes. Refer to the question regularly.

COMPARISON POEM ESSAY:
40 mins (including planning time)

Intro - link to question. Explain the overall meaning of the poem briefly.
Throughout the essay – start with the second poem, choose relevant quotes from the poem and analyse the language, structure and effect of these quotes and then how they link to examples and analysis from poem 1. You must use connectives of comparison. Refer to the question regularly.

Comparative Essay Structure

1. **Introduction/Thesis**
   How question theme expressed in poem 1 and how expressed within poem 2 (compare
2. **Language comparison**
   Use within poem 1 against use within poem 2
3. **Form and structure comparison**
   Use within poem 1 against use within poem 2
4. **Wider issues: writer's ideas, themes, attitudes and feelings**
   How each poem engages in issues, in light of language, form and structure
5. **Summary – comparing/contrasting**
   Start with 'Both of these poems …'

Success Criteria – Writing the response

1. Analyse and explore language, form and structure.
2. Understand and comment on the poet's intentions.
3. Understand and evaluate the reader's response.
4. Understand and evaluate the effects and significance of context (audience, social, historical, cultural).
5. Apply comparative skills.
6. Be able to explore a poem independently and interpret and evaluate the ideas of each poem.
7. Use precise evidence to support ideas.
8. Drill into language (individual words) and analyse multiple meanings where possible.

Language for Comparison

To show similarities	Both poems convey/address/explore/present, likewise, similarly
To show differences	Although … Whereas … Whilst … In contrast … Conversely … On the contrary … Unlike …

WW1 Context:

World War I began in 1914 after the assassination of Archduke Franz Ferdinand and lasted until 1918. During the conflict, Germany, Austria-Hungary, Bulgaria and the Ottoman Empire (the Central Powers) fought against Great Britain, France, Russia, Italy, Romania, Japan and the United States (the Allied Powers).

WW2 Context:

World War II, also called Second World War, conflict that involved virtually every part of the world during the years 1939–45. The principal belligerents were the Axis powers—Germany, Italy, and Japan—and the Allies—France, Great Britain, the United States, the Soviet Union, and, to a lesser extent, China.

Year 9 Maths – Term 1B

Problem Solving at St Cuthbert's

K Key Information - Highlight or pick out the important things that you will need

L List the Maths - What Maths topics will you need? Can you write down any rules?

A Attach Numbers - Assign numbers to help / Relate the problem to one you can already do eg.. 3 x 4 = 12

P Picture - Annotate the diagram given with any information / Draw a picture to help you visualise

S Sensible - Does your answer make sense?

Don't forget

Always show your working out

Never round half way through a question

Key Words

Take care with your spellings of these key words

Solve	**Equations**
Inequalities	**Algebra**
Re-arrange	

Solving Equations

One Step Addition Example

The Opposite of Addition is Subtraction

$y + 14 = 20$

$-14 \quad -14$

$y = 6$ ✓

The value which makes the equation true is 6.

ONE STEP SUBTRACTION EXAMPLE

The Opposite of Subtraction is Addition

$x - 120 = 80$

$+120 \quad +120$

$x = 200$ ✓

The value which makes the equation true is 200

Multiplication Example

The Opposite of Multiplication is Division

$3n = 12$

$\frac{3n}{3} = \frac{12}{3}$ 3/3 cancels down to become 1/1 =1

$n = 4$ ✓ 1n is simply "n"

The value which makes the equation true is 4.

One Step Division Example

The Opposite of Division is Multiplication.

$\frac{k}{2} = 16$ K is divided by 2, so we need to multiply both sides by 2

$\frac{k}{2} \times 2 = 16 \times 2$ 2/2 cancels down to become 1/1 =1

$k = 32$ ✓ 1k is simply "k"

The value which makes the equation true is 32

Harder:

Solve the equation $3x + 5 = 20$

$$3x + 5 - 5 = 20 - 5$$

$$3x = 15$$

$$\frac{3x}{3} = \frac{15}{3}$$

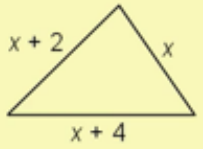
$$x = 5$$

Linking Algebra to other topics

a) Write down an expression for the perimeter of this triangle.

b) (i) If the perimeter of the triangle is 21 cm, write down an equation in terms of x.

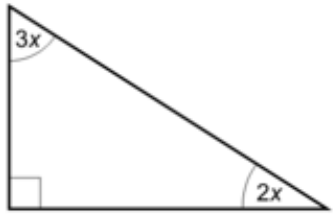
(ii) Solve the equation to find the value of x.



In the question above, we are required to use our knowledge of shape and Perimeter, and combine it with the skills we have learned in Algebra topics (collecting like terms, and solving equations)

Can you try this question?

Work out the value of x:



Changing the subject of a formula

$s = t + 10$

$-10 \quad -10$

$s - 10 = t$

$t = s - 10$

$s = 2t - 3$

$+3 \quad +3$

$s + 3 = 2t$

$\div 2 \quad \div 2$

$\frac{s+3}{2} = t$

$7s = \frac{t}{4} + 15$

$-15 \quad -15$

$7s - 15 = \frac{t}{4}$

$\times 4 \quad \times 4$

$28s - 60 = t$

$8s = \frac{20 - t}{3}$

$\times 3 \quad \times 3$

$24s = 20 - t$

We don't like it when the subject is negative :(

$+t \quad +t$

$24s + t = 20$

$-24s \quad -24s$

$t = 20 - 24s$

$11s = \frac{t^2}{4}$

$\times 4 \quad \times 4$

$44s = t^2$

$\sqrt{} \quad \sqrt{}$

$\sqrt{44s} = t$

These examples show how we can make a different letter the subject of a formula, by using inverse operations and the balancing method. This enables us to calculate a different variable and not just the one identified in the original formula.

Can you try this question?

Rearrange $t = 5s + 4$ to make s the subject.

Year 9 Science – Term 1B

Reactions: Metals + acids

General equation: Metal + Acid → Salt + hydrogen gas
Example *(words)*: Lead + Hydrochloric acid → Lead chloride + Hydrogen
Observation *(What you see)*: Bubbles / Fizzing

Reactions: Metals + Oxygen

General equation: Metal + Oxygen → Metal oxide
Example *(words)*: Calcium + Oxygen → Calcium Oxide
Example *(symbol)*: $2Ca_{(s)} + O_{2(g)} \rightarrow 2CaO_{(s)}$
Observation *(What you see)*: Metals with oxide layers can be dull and when reacting with oxygen they can glow bright and give off heat.

Reactions: Metals + Water

General equation: Metal + Water → Metal hydroxide + hydrogen gas
Example *(words)*: Sodium + Water → Sodium Hydroxide + Hydrogen
Example *(symbol)*: $2Na_{(s)} + H_2O_{(l)} \rightarrow 2NaOH_{(aq)} + H_{2(g)}$
Observation *(What you see)*: Bubbles / Fizzing

Displacement reactions

Using the **reactivity series** a more reactive metal will **displace** a less reactive metals from their compounds.
Example *(words)* / *(*symbol):

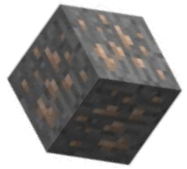
Zinc + Copper sulphate → Zinc sulphate + Copper

$Zn_{(s)} + CuSO_{4(aq)} \rightarrow ZnSO_{4(aq)} + Cu_{(s)}$

Observation *(What you see)*: Iron metal forming
A reaction with a less reactive metal will not work.
Example: Thermite reaction mixes 2 powders and heating them strongly. It is a very exothermic reaction.

When metals react they do so differently. The nearer the top of the reactivity series the more reactive they are.

Pretty / Jewellery = Bottom
Old fashioned / traditional = Middle
-ium = Top



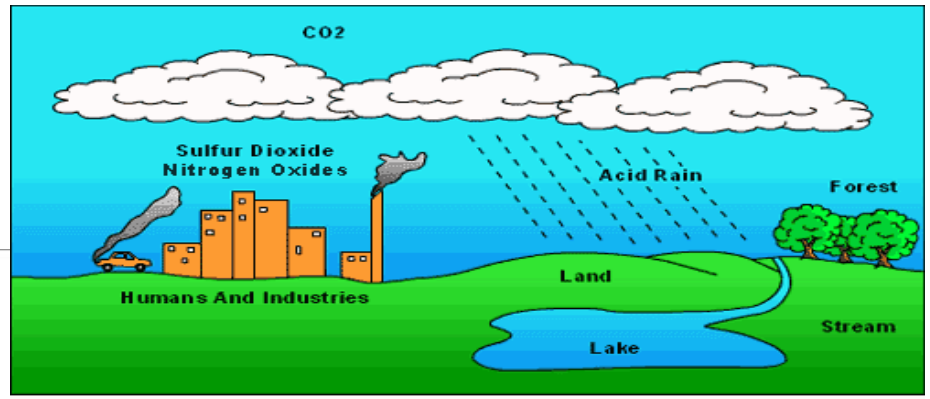
Reactivity series

REACTIVE
Potassium
Sodium
Lithium
Calcium
Magnesium
Aluminium
Carbon
Zinc
Iron
Lead
Hydrogen
Copper
Silver
Gold
UNREACTIVE

States of matter
(s) = A solid
(l) = A liquid
(g) = A gas
(aq) = Aqueous
(dissolved in water)

Key Words

Alkali metal	Highly reactive group 1 metals
Alloy	A mixture of two or more elements where at least one is a metal
Chemical property	a characteristic of a particular substance that can be observed in a **chemical** reaction
Diatomic	Consisting of 2 atoms
Displacement reaction	A more reactive metal displacing a less reactive metal from it's compound
Group	A column of elements on the periodic table
Halogen	Group 7 element
Inert	An element that is unreactive
Ore	A naturally occurring rock that contains metal
Oxidation	The loss of electrons
Period	A row of elements on the periodic table



Acid Rain

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Year 9 Science – Term 1B

Alkali metals -all are soft, shiny, low density metals that conduct heat and electricity. They are highly reactive losing their 1 outer electron to form a 1+ ion with non-metals.
The alkali metals react with oxygen, water and halogens

Trends going down Group 1

1. Reactivity increases
2. Density increases
3. melting and boiling points decrease
4. Atomic radius increases

Halogens - The halogens exist as diatomic **molecules**. Each molecule contains two halogen **atoms** joined by a single **covalent bond**. they have 7 electrons in their outer shell meaning they gain an outer electron to form 1-ions.The halogens react with metals to produce **salts** (the word 'halogen' means 'salt former'). For example, chlorine reacts with sodium:
Sodium + chlorine → sodium chloride
$2Na(s) + Cl_2(g) \rightarrow 2NaCl(s)$

Trends going down Group 7

1. Reactivity decreases
2. Melting and boiling point increases
3. Atomic radius increases
4. Colour of the elements tends to get darker

Acid	Formula
Sulphuric acid	H_2SO_4
Hydrochloric acid	HCl
Nitric acid	HNO_3

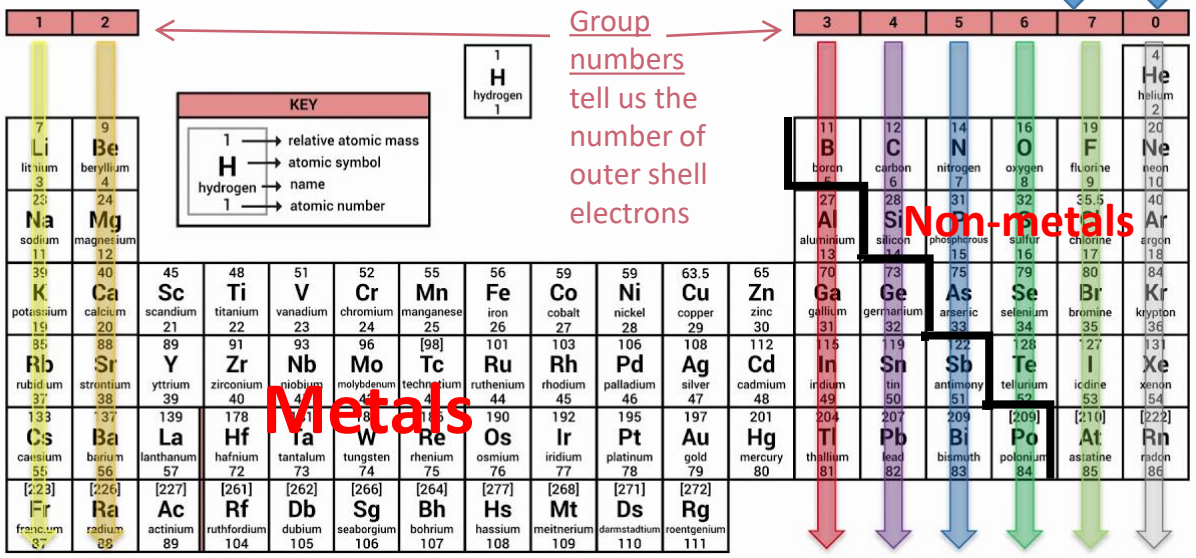
Noble gases - all conduct electricity, fluoresce, are odourless and colourless, and are inert as they have full outer electron shells.

Trends going down Group 0

1. Density increases
2. Melting and boiling points increase
3. Atomic radius increases

Key Words

Physical property	A **property** of a substance that can be measured e.g. colour, hardness, boiling/melting point.
Reactivity series	An ordering of metals from most reactive to least reactive
Reduction	The gain of electrons
Salt	A metal salt is a compound formed when the hydrogen of an acid is replaced by a metal.
State symbol	The state symbols in brackets show the physical state of. the substance at the reaction temperature. Solid (s), liquid (l), gas (g), or dissolved in water (aq). aq is called aqueous
Trend	A general pattern of change in groups or periods on the periodic table



Metal extraction

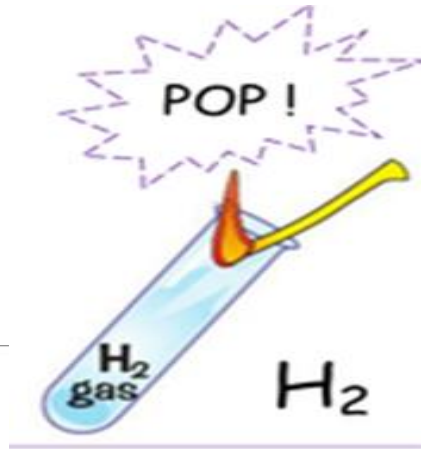
Metals come from the Earth's crust. They are found in rocks combined with other elements.
A rock you can extract metals from are called **ores.**
E.g. Iron ore is a mixture of Iron and oxygen called Iron Oxide.
Metal is extracted by 2 stages

1. Remove the oxide from the ore
2. Extract the metal with chemical reactions.
   - Carbon can be used to do this if it is more reactive then the metal

Example *(word)*:
Copper oxide + Carbon → Carbon dioxide + Copper
Example *(Symbol)*:
$2CuO_{(s)} + C_{(s)} \rightarrow CO_{2(g)} + 2Cu_{(s)}$

Products of metal reacting with acid

When a metal reacts with acid the products are hydrogen gas and a metal salt. We can test the gas to ensure it is hydrogen using a lit splint.



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Year 9 Religious Education – Term 1B:

Why is there Suffering?

Some big questions we will be thinking about…

- ✓ Why is there suffering?
- ✓ Is God to blame for the evil in the world?
- ✓ Does evil prove there is no God?
- ✓ How do Christians defend the existence of God despite the evil?
- ✓ Are humans to blame for suffering?
- ✓ How should we act?
- ✓ What moral authorities help us make decisions?
- ✓ What is the best moral authority?

Essential knowledge

It is clear that there is evil in the world. Evil and suffering leads people to ask why this suffering happens. If God is all powerful (omnipotent), all loving (omnibenevolent) and all knowing (omniscient) then why does he allow evil and pain? David Hume called this problem, 'the inconsistent triad' and claimed that this proved that God is not real.

Christians have tried to defend God with 'theodicies'.

Some people may argue that humans are to blame for the evil in the world, not God. This is called 'moral evil'. Why do humans cause evil? How can we stop? Humans sometimes make bad choices. The story of Adam and Eve is symbolic of human temptation that often leads to sin. Catholic believe that humans have a natural urge to turn away from God and do wrong. This is called 'original sin'.

There are moral authorities that help us to make the correct choices and help guide our decisions.

<u>Conscience</u> – this is our natural moral compass from God. It is God's word written in our hearts.

<u>Bible</u> – the word of God. This is seen as a guide for making moral decisions. Is the Bible still relevant to today?

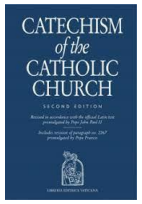
<u>Jesus</u> – the ultimate moral guide for Christians. Jesus gave many teaching about how to live. Jesus is a person of the Trinity and God made flesh (incarnation) so Christians want to follow him.

Key Words	Definition
Inconsistent Triad	David Hume – If God is all powerful, all knowing and evil exists than how can God be real?
Moral Evil	Evil caused by humans e.g. murder, theft.
Natural Evil	Naturally occurring evil e.g. hurricane, earthquake.
Theodicies	Arguments used to defend the existence of God against the evil in the world.
The Fall	The story of Adam and Eve. Humans 'falling' away from God and His love.
Moral	A right action or decision.
Immoral	A wrong action or decision
Conscience	The inner voice of right and wrong, Christians believe our conscience is God given.
Moral Authority	The guides we can look to that help us make decisions e.g. conscience, Bible, Jesus.
Original Sin	The built in urge human are born with to turn away from God and do wrong.
Sin	Disobeying the law of God.
Incarnation	'made flesh' the belief that Jesus is God made flesh. He is fully human and fully God.
Trinity	The belief that God one God, but also three separate persons – God the Father, God the Son and God the Holy Spirit.

Sources of Wisdom and Authority (SOWAA)

"Man has in his heart a law inscribed by God… his conscience is man's most secret core, and his sanctuary.'

Catechism of the Catholic Church



"Is [God] willing to prevent evil, but not able? then is he impotent. Is he able, but not willing? then is he malevolent." – David Hume

'All Scripture is inspired by God' – 2 Timothy

'God is a maniac' – Stephen Fry

The parable of the Good Samaritan; Luke 10: 25-37 'love your neighbour as yourself'

The parable of the sheep and the goats; Matthew 25: 31-46

The Beatitudes – Matthew 5:1-12 'Blessed are the…'

Year 9 Geography – Term 1B : Sustainable Development

"Sustainability is meeting the needs of the present without compromising the ability of future generations to meet their own needs."

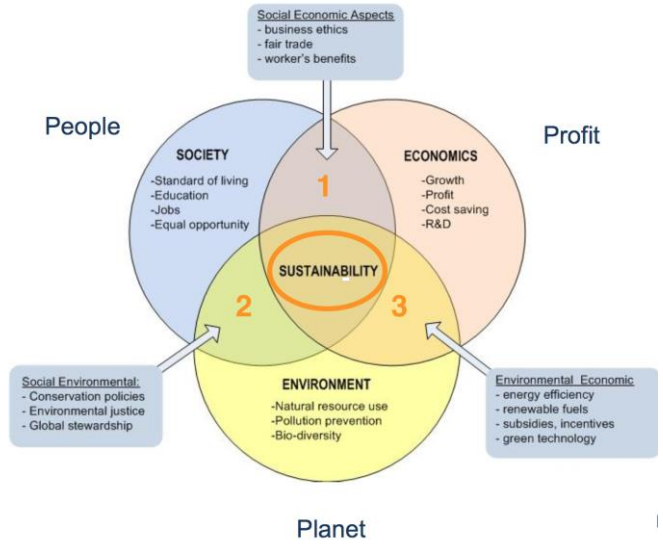
Term	Definition
Climate change	Changes in climate (temperature, rainfall) as a result of natural causes or human activity
Extraction	To remove something
Global warming	The recent increase in global temperatures
Great Pacific garbage patch	A huge area of plastic and other waste floating in the Pacific Ocean and trapped by the circulation of ocean currents (gyres)
Greenhouse gases	Gases such as carbon dioxide and methane, which absorb heat from Earth
Gyres	Global circulating ocean currents
Landfill	The dumping of waster in massive piles or large holes before burying it with soil
Microplastics	Tiny pieces of non-biodegradable plastic
Sustainable tourism	Tourism that has a positive effect on the local environment, society and economy
Renewable	A resource which does not run out eg Solar.
Non - Renewable	A resource which will run out when used up eg Coal.

Sustainable City

Sustainable City - Building cities that can continue to function without running out of resources, therefore reducing their negative impact on the world. The also have various social and economic benefits for the population.

How the a city can be made more sustainable?

- Transport – public transport, cycle links, walk ways, electric cars.
- Renewable energy – solar panels, wind farms.
- Housing – Triple glazing, LED bulbs, food locally sourced.
- Waste Management – Recycling.



Food Supply

Fair trade - Fair trade is when producers in developing countries are paid a fair price for their work, by companies in developed countries.

Define food security - A measure of the availability of food and individuals' ability to access it.

Physical and Human Factors which affect food supply:
Increase (Human) – New techniques, fertilisers, pesticides.
Increase (Physical) – Desired climate, land quality.
Decrease (Human) – Lack of money, war.
Decrease (Physical) – Poor climate, natural hazard, climate change.

Plastic Pollution

Plastic Pollution - The contamination of the sea by plastic substances that are harmful to living organisms as a result of human activity.

Great Pacific Garbage Patch - It is a huge concentration of plastic waste floating in the Pacific Ocean. Over recent decades rubbish has built up and become trapped in the circulating oceans currents (North Pacific Gyre).

Effects of plastic pollution
Social - plastic is ending up in the food we eat, quality of drinking water is decreasing.
Economic – beach tourism affected, cost to clean up.
Environmental - animals entangled in fishing gear, coral reefs are dying.

The Sustainable Development Goals form a universal programme to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

Why does energy consumption vary around the world?

Since 2010, the energy consumption in China and India increased dramatically, which is a result of the countries developing as therefore employment shifted to manufacturing and the population required more personal energy use (eg car ownership, heating in house).
However energy consumption has decreased in Australia and Saudi Arabia, as these developed countries have research and strategies in place to make them more sustainable.

Year 9 History – Term 1B: The Second World War

The Russian Revolution

1

The Russian Revolution took place in 1917 when the peasants and working class people of Russia revolted against the government of Tsar Nicholas II. They were led by Vladimir Lenin and a group of revolutionaries called the Bolsheviks. The new communist government created the country of the Soviet Union.

Appeasement

3

Adolf Hitler became Chancellor of Germany in January 1933. He had aggressive and ambitious foreign policy aims.

Britain initially pursued a policy of appeasement, seeking to give Hitler some of what he wanted in order to preserve peace. This enabled Britain to get ready for war.

Operation Dynamo

5

Operation Dynamo, the evacuation from Dunkirk, involved the rescue of more than 338,000 British and French soldiers from the French port of Dunkirk between 26 May and 4 June 1940. The evacuation, sometimes referred to as the Miracle of Dunkirk, was a big boost for British morale. Prime Minister Winston Churchill recognised however that the greatest challenge still lay ahead, as Nazi ambitions now turned toward Britain.

The Treaty of Versailles June 1919

2

Treaty = Agreement

Versailles = Place in France the agreement was created

World War One ended on 11 November 1918, when Germany surrendered to the allies. Delegates from 32 countries met in Versailles in June 1919 and signed a peace settlement called the Treaty of Versailles.

The terms of the Treaty of Versailles punished Germany for their involvement in starting World War One. Britain, France and America were the 'Big Three' who decided on how Germany was punished. Germany was not invited to discuss the Treaty.

L: Land – Germany was stripped of her empire and return Alsace and Lorraine to France.

A: Army – The German Army was limited to 100,000 men and the Navy was allowed only 6 Battleships.

M: Money – Germany had to pay 6.6 billion in reparation payments to the allies.

B: Blame – Germany had to sign the War Guilt Clause which forced them to accept that Germany had caused WWI.

Many Germans found the TOV to be humiliating and it was bitterly hated.

WWII Summary: 1938-1945

4

- **Nazi Germany** invaded Poland in 1939 and Britain responded by declaring war. Many other countries were invaded by Nazi Germany. Over several years, Britain, USA and Russia, fought back, successfully completing the '**D-Day**' landing back in Europe in June 1944 and pushing back German troops until they surrendered in **May 1945**. Japan continued to fight until they surrendered in September 1945.
- British civilians suffered during the war. They were constantly bombed during the '**Blitz**', food was **rationed** and children were **evacuated** to the country for protection. **Women** played a new role in society as they filled gaps left my the men who went to fight in the army.
- In Europe, Hitler and Nazi Germany continued to *discriminate* and *persecute (treat badly)* the Jewish population, leading to the atrocious events of the **Holocaust**. Many Jewish people, such **as Anne Frank**, attempted to hide in safety.

Key Vocabulary

6

Anti-Semitism	Holding views that discriminate against Jewish people.
Blitz	The bombing of areas of Britain, mainly London, from German Aircraft.
Blackout	Town or cities were made dark so they couldn't be seen from the sky.
Evacuee	Children removed from dangerous areas to safer, rural places
Fascism	A belief system, against democracy and for a powerful armed state.
Kristallnacht	Also know as 'The Night of the Broken Glass' was a campaign of destroying Jewish businesses, buildings and synagogues.
Holocaust	The mass killing of Jews in concentration camps.
Lebensraum	Nazi policy meaning 'living space' – used to invade other countries.
Luftwaffe	The German Air-Force.
Propaganda	Information spread to influence people.
Rationing	The set amount of food that each person/ family was allowed.
Reparation payments	The financial payments made to the Allied forces by the Germans, agreed by the Treaty of Versailles at the end of the First World War.
Total War	The idea that war involved civilians as much as soldiers and politicians. Everyone was affected.

Year 9 PD – Term 1B: Money Management – Money and our Health

Watch this – Money Mule Schemes and Gambling
Watch this – Fraud
Watch this – Credit and Debt

Definition of Mental Health
MentalHealth.gov:

"Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices."

Three things that might have a negative effect on mental wellbeing

Gambling
Gambling involves playing a game, placing a bet, or taking a risk, in the hope of winning money or something desired.

'Money mule' schemes
Money mule schemes involve someone agreeing to allow their bank account to be used by someone else, in return for money. The person requesting to use the bank account is usually involved in criminal activity, e.g. funding terrorist acts.

Unmanageable debt
Debt is when someone has borrowed money from a person or organisation, and cannot afford to pay it back.

How can my money choices affect my mental wellbeing? | 5

What is fraud?

'Fraud' is the word we use to describe when someone tricks you out of your money. They might do this by pretending to be you ('identity theft') or by getting access to your bank account and/or your credit cards.

Protect yourself from fraud by:

- **Never** sharing your personal details (like your PIN and passwords) with anyone
- Looking after your cards carefully and keeping them in a safe place
- Checking your bank account regularly to see if there are any transactions you don't remember
- Shredding or cutting up documents that have your personal details on before throwing them away, e.g. bank statements

How do I keep my finances secure? | 5

What is a scam?

A scam is a trick that someone plays on you to cheat you out of your money. There are lots of different types of scam, including phishing emails and fake letters.

Protect yourself from scams by:

- **Never** giving all of your bank account information to anyone – real banks never ask for all of your information
- Reading your emails and letters carefully – if an email asks you for money, ask yourself why? Delete suspicious or unknown emails
- Never sharing your personal information on social media

How do I keep my finances secure? | 6

Challenge!
Research or ask a parent/carer what their outgoings per month are. Then look at the starting salary per month for a career you are interested in and see if you could afford the lifestyle you have now. Would you need to scale back, or could you splash out a bit more?

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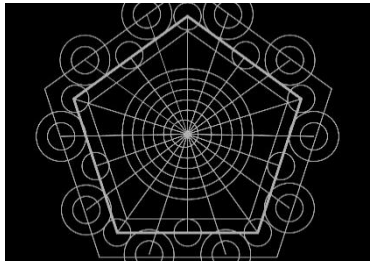
Resources from https://natwest.mymoneysense.com/

Year 9 Art – Term 1B: Artist Focus - Pattern

Pattern is one of the **seven formal elements** in Art. A **pattern** is a **design** in which **lines, shapes, forms or colours** are r**epeated**. The part that is repeated is called a **motif**. There are two basic types of pattern in art: **Natural Pattern** and **Man-Made Pattern**. Both natural and man-made patterns can be **regular or irreg**ular, **organic or geometric**, structural or decorative, **positive** or **negative** and **repeating** or **random.**

Natural Pattern: The natural patterns that occur in nature, e.g. patterns on animals, fish and insects.

Man-Made Pattern: Pattern in art is used for both structural and decorative purposes.



Since the dawn of time Artists have sought to recreate the patterns that they have seen in nature. The three examples above show. 1. an example of **'sacred Geometry'** 2. An example of **ancient Celtic pattern** 3. An example of **ancient Islamic pattern**. The similarities across time and space are striking. The creation of pattern is a little understood human artistic drive.

Key Words and Specialist Vocabulary:

Organic: Shapes which are free-form, unpredictable and flowing in appearance.

Geometric: Figure or area closed by a boundary which is created by combining a specific amount of curves, points, and lines.

Motif: a decorative image or design, especially a repeated one forming a pattern.

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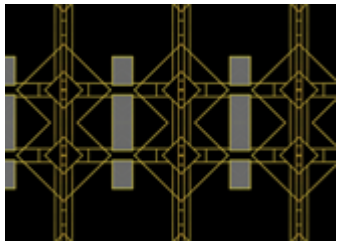
Beatriz Milhazes (1960)

Beatriz Milhazes is a Brazilian-born collage artist and painter known for her large scale works and installations. She has been called "Brazil's most successful contemporary painter". In terms of technique, Milhazes is mostly concerned with the principle of collage, drawing from her combined knowledge of both **Latin American** and **European traditions**.

Milhazes' many other influences come from her own fascination with the **decorative arts, fashion,** and **geometry**. Milhazes has described her own work in saying "I think of my work as geometric, yet I can't put everything into a square or a circle." Her self-developed process of art making came about during her extensive researching of printing processes in the 1980s.

Her Process: Milhazes often starts by painting large sheets of plastic and sticking these to canvas with glue. Then peeling areas of these away. She aims to paint smooth surfaces and leave no brush strokes.

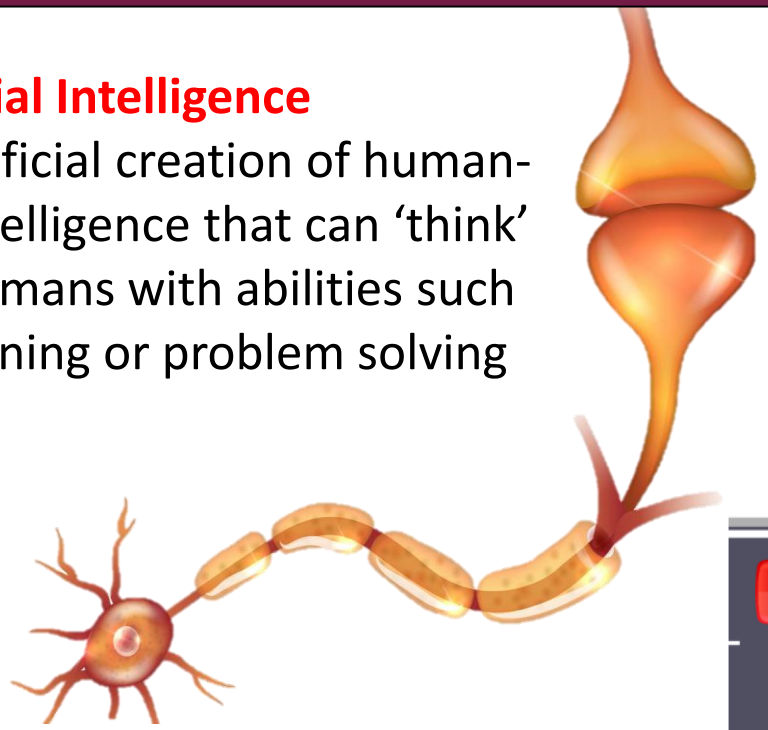
Decorative Arts: Humans have always sought to make their surroundings and belongings more attractive by decorating them. **Art movements** such as 1.**'Arts and Crafts'**(1880-1920), 2. **Art Deco** (1908—1935) and the practice of 3. **Illuminating letters** in ancient Medieval manuscripts.



Year 9 Computing – Term 1B: "I am a Machine Learning Engineer"

Artificial Intelligence

An artificial creation of human-like intelligence that can 'think' like humans with abilities such as learning or problem solving

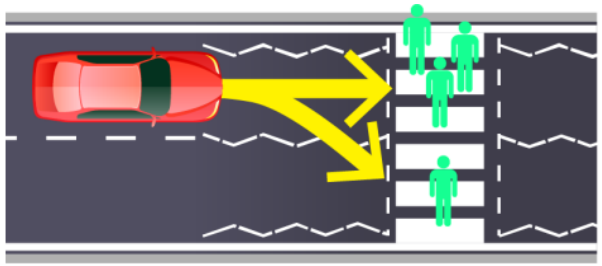


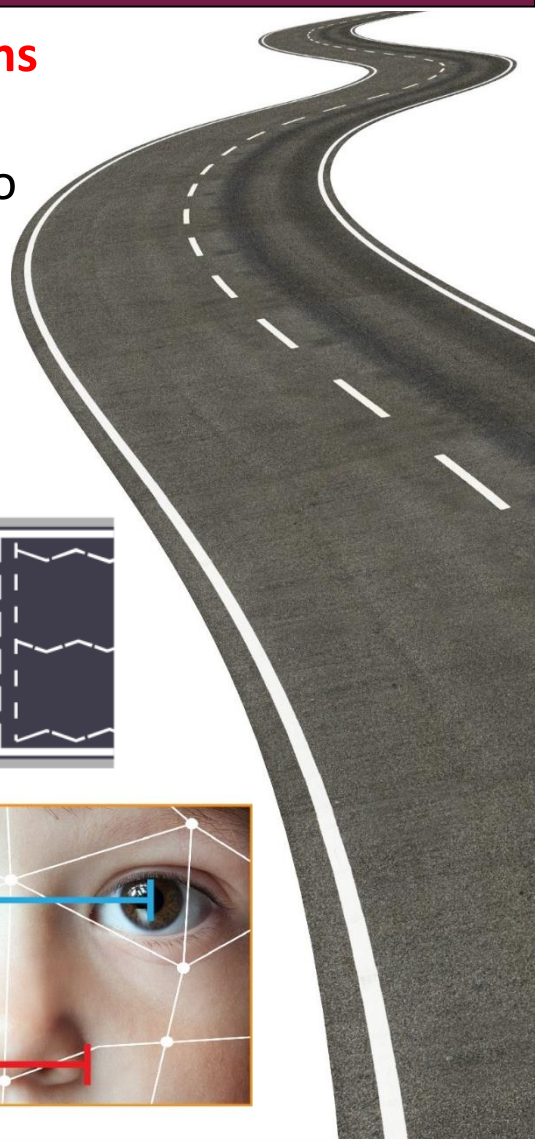
Neural networks

Works like neurons in the brain. Helps the AI to classify information in the same way a human brain does. This could include classifying an animal in an image, deciding which way to turn in a self driving car, or whether an AI computer player should move towards you in a videogame.

Self-driving decisions

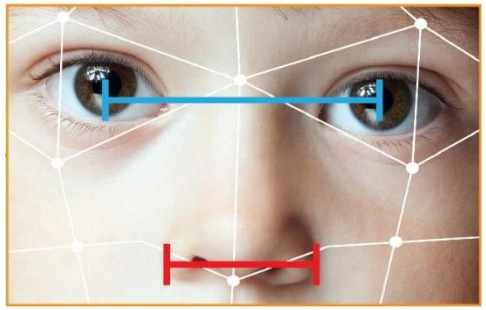
The AI in a self-driving car needs to consider lots of factors before making any decisions.





Facial recognition

Uses measurements taken between key points on the image of a face. These can be turned into ratios. It is these ratios that are used to unlock your phone, not the way someone looks.



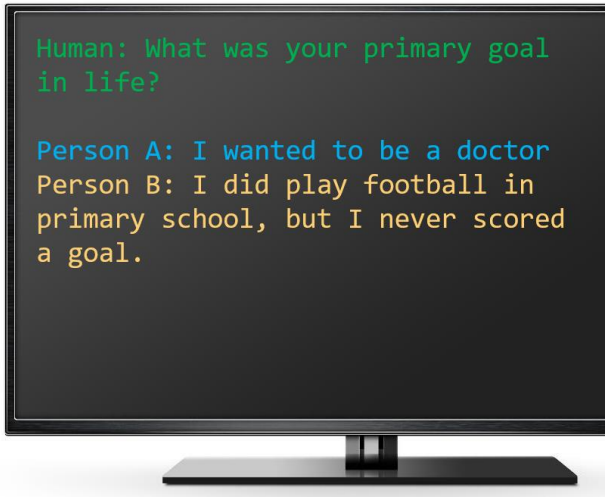
Year 9 Computing – Term 1B: "I am a Machine Learning Engineer"

Facts and rules

Machine learning will create FACTS and RULES itself based on data that has been provided to it. A fact for classifying a person might be that, 'people have a mouth', a rule that helps to classify a person could be 'people might wear sunglasses'

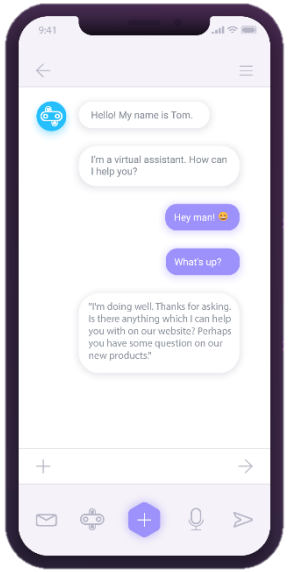
The Turing Test

This test was created by Alan Turing in 1950. A human sits in one room and asks questions through a computer. If the human cannot tell the difference between talking to a computer and a human, the computer passes the test.



Chatbots

Chatbots, also known as virtual assistants are able to help people by replying to messages or voice commands.



Issues with machine learning…

If you do not provide enough data to the AI, the machine learning element could get confused – If we tell the AI that 'people might wear sunglasses', it could confuse the dog in the top left as a person or the dog above as a Sheep.

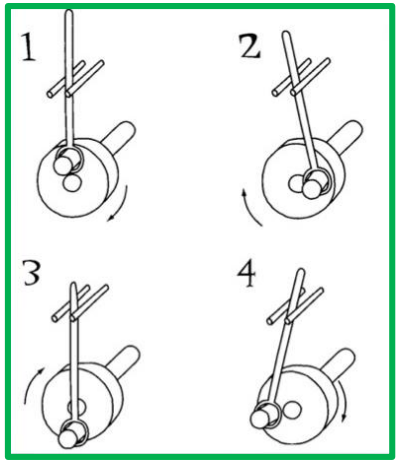
Year 9 Design and Technology – Term 1B: Cam Toy

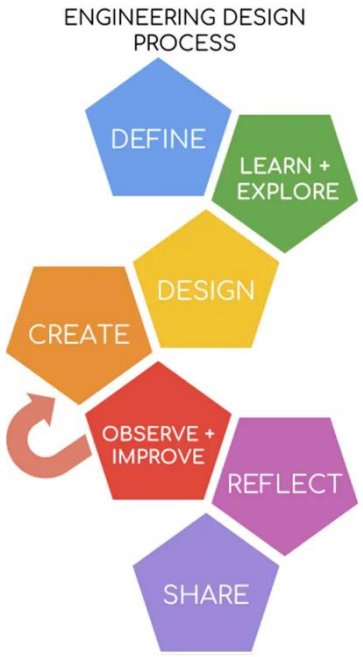
Scan the QR codes to go to the Automata Museum Website

Key vocabulary	Definition
Follower	Follower gear means the gear after the idler gear.
Automata	A mechanical figure or contrivance constructed to act as if by its own motive power.
Specification	As a list of criteria a product needs to address.
Moodboard	A mood board is essentially an arrangement of images that inspire designers.
Cam Shaft	Is a shaft that contains a row of pointed cams, in order to convert rotational motion to reciprocating motion.
Prototype	Is an early sample, model, or release of a product built to test a concept or process.
Fulcrum	Pivot point on which a lever turns.
Flat Follower	Flat followers have a flat bottom that sits on the cam. These cope well under load but aren't very accurate and have a lot of friction.
Gear Tooth	A gear tooth is a single protruding section on the outer edge of a gear wheel.
Kinetic	Refers to motion or movement.

Automata Toys.

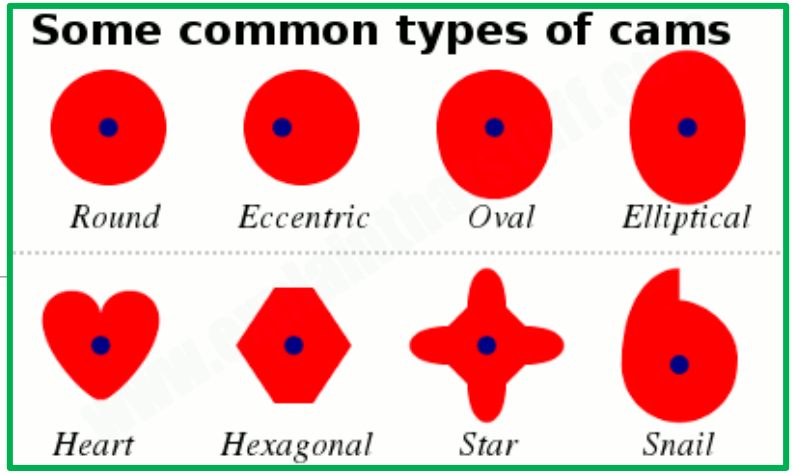
Scan the QR code to watch a video about Designer Amedeo Capelli Automatas.





5 Habits

1. **Look at other designers' work.**
2. **Do not be afraid to experiment.**
3. **Think about what they want to be known for.**
4. **Listen to what clients have to say.**
5. **Explain your work.**



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Year 9 Drama– Term 1B: Bertolt Brecht – Epic Theatre

WHO
Bertolt Brecht was born in Germany in 1898 and died at the age of 58 in 1956. He is one of the most famous people in the world of theatre. He was a playwright, a director, an actor and developed many ideas and theories about theatre and acting which means he is considered to be a theatre practitioner. His plays are still performed around the world and his theories are still used in the performances of other plays.

WHERE AND WHEN
After serving as a medic in the First World War and appalled by the effects of the war, he went first to Munich and then to Berlin in pursuit of a career in the theatre. That period of his life came to an end in 1933 when the Nazis came to power in Germany. Brecht fled and during this period the Nazis removed his citizenship, so he was a stateless citizen. By the time of his death in 1956, Brecht had established the **Berliner Ensemble** and was regarded as one of the greatest theatrical practitioners.

WHAT
Brecht made many changes to the theatre of his day. He disagreed with the fact that an audience should be swept along with the emotion of a production. Before Brecht, the theatre of the day would use realistic story lines and high emotion, it would expect the audience to believe in the characters and the situations.
Brecht felt that the theatre should be something that made the audience feel more than simple emotion –he wanted it to make the audience **think** or **learn** something and to **make a change for the better** as a result.

THE V EFFECT

Songs–to remind the audience that they are watching a performance and to change the tone or atmosphere.
Spass–fun –making the audience laugh and then making them question why they are finding serious things funny.
Design–The audience were reminded that they were in a theatre watching a performance as the house lights were left on, all of the set was visible from the start and the actors did all of the set changes. Costumes were also changed on stage and the actors played the instruments used for the songs on stage.
Placards–Signs were held up to tell the audience the title of the scene and even what was going to happen in them, this was to take away suspense and emotion and allow the audience to think about the scene instead.
Direct address –The actors speak directly to the audience, sometimes in the form of questions, this reminds the audience that what they are seeing isn't real and forces them to think about what they are watching. This is called **'breaking the fourth wall'**.
Multi role-play –The actors play more than one part in the performance, changing characters in front of the audience's eyes and reminding the audience that they are actors and not the characters. This technique also stops the audience from becoming too emotionally involved with the characters.
Representational costume –The actors would simply put on one item of clothing, or an accessory such as a hat or glasses to represent that they were a particular character –they didn't try to 'become' the character.

Year 9 Food – Term 1B: Food science

The effect of heat on protein

Functional and chemical properties of food

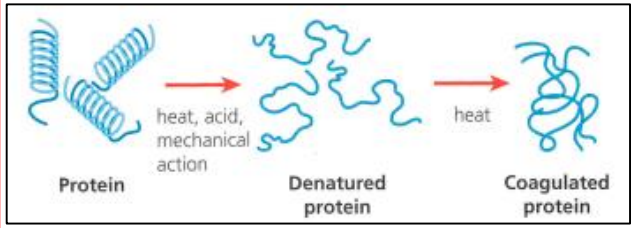
Denaturation

Denaturation happens when the long chains of amino acids that make up proteins unfold. This happens in recipes when protein foods are either heated, beaten or exposed to acidic foods. Examples are below:

- **heat** from a pan when frying an egg
- **acid** (lemon juice) in a meat marinade
- **mechanical action** when whisking egg whites for a meringue.

Coagulation

Coagulation happens when the protein in food sets during the cooking process. We cook protein foods to make them nicer to eat. A cooked egg is nicer than a raw egg.



The diagram shows proteins denaturing (change shape) and then coagulating (set).

Scan the QR code to watch a video about the protein section of the Eatwell guide. Scan to complete the quiz on fish processing/fish in the diet.

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Key vocabulary	Definition
Binding	To bring ingredients in a mixture together using a binding ingredient (egg).
Coagulation	When protein sets during the cooking process.
Coating	To add another ingredient to create an attractive finish or protective layer.
Conduction	Heat transfers from a cooking pan/tray to the food, e.g., cookies on a tray.
Convection	Heat travels through air and water, e.g., boiling eggs, baking in the oven.
Denaturation	When long chains of amino acids in proteins unfold and change shape.
Denature	Heat, acid and mechanical action cause proteins to denature.
DRVs - Dietary reference value	These are estimated amounts of nutrients that are needed by different groups of healthy people. They relate to a person's age, gender and activity.
Fibre	Fibre makes us feel full. It is essential for a healthy digestive system.
Polysaccharide	Starch is a complex carbohydrate which takes the body longer to digest.

Protein foods including fish

SCAN TO WATCH

SCAN FOR QUIZ

This section of the Eatwell guide supplies us with the macronutrient protein. It includes food from animal and plant sources. Most animal sources have all the amino acids our body needs to make new proteins so they are called **High Biological Value (HBV)**. Most plant sources have some amino acids missing so are called **Low Biological Value (LBV)** so have to be combined with others to get protein complementation.

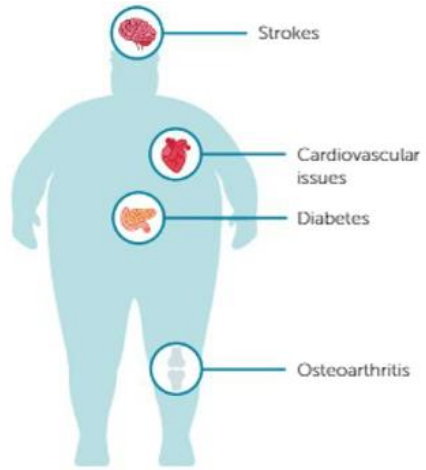
Processing of fish

SCAN TO WATCH

Scan the QR code to watch a video about processing fish.

Takeaways

A restaurant or shop selling cooked food to be eaten elsewhere. There are many different types of takeaways – pizza, Chinese, Indian, fish and chips are just a few. Takeaways can be high in fat and salt, for these reasons they should be eaten infrequently as they can cause people to put weight on. Some health effects of being overweight are in the diagram below.



Carbohydrates

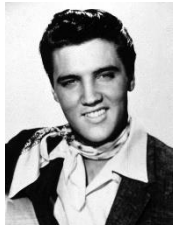
One of the three macronutrients; primary function is energy. Complex carbohydrates supply slow release energy that our body has to break down so will last longer.

SCAN TO WATCH

Scan the QR codes to watch a video about carbohydrates and complete your homework quiz.

SCAN FOR QUIZ

Year 9 Music – Term 1B: Decades - Keywords

50s – Rock and Roll	60s – The British Invasion	70s - Disco	80s
Music in the 1950s was dominated by the birth of **rock and roll**. Rock and roll was a powerful new form of music that combined elements of **rhythm and blues (R&B), pop, blues, and hillbilly** music to create a sound that truly shook America. 	On February 7 the **Beatles** arrived in New York for their inaugural U.S. visit, and two days later played on The Ed Sullivan Show to hysterical response and record viewership, thereby effecting a cataclysmic cultural shift and triggering a musical movement that would come to be known as the **British Invasion.** 	Disco is a genre of dance music and a subculture that emerged in the 1970s from the United States' urban nightlife scene. Its sound is typified by four-on-the-floor **beats, syncopated basslines, string sections, horns, electric piano, synthesizers, and electric rhythm guitars.** 	Synth-pop (also known as electropop or technopop) is a music genre that uses the synthesizer as the dominant musical instrument. What does synth pop sound like? Early synth-pop has been described as "**eerie, sterile, and vaguely menacing", using droning electronics** with little change in inflection. Common lyrical themes of synth-pop songs were **isolation, urban anomie, and feelings of being emotionally cold and hollow.**

90s - Britpop

Britpop, movement of British rock bands in the 1990s that drew consciously on the tradition of **melodic, guitar-based British pop music** established by the Beatles. Like nearly all musical youth trends, Britpop was about **songs, guitars, jackets, and attitudes**—though not necessarily in that order. Lyrics written by Britpop bands were made to be relevant to young people in Britain, and the **songs released during this movement embraced and emphasised 'Britishness'.**

Britpop sparked a period of greater pride in the culture of the United Kingdom, in a cultural movement known as **Cool Britannia**.

Year 9 Physical Education – Term 1B: Aerobic and Anaerobic Exercise

The **anaerobic** respiratory system supplies energy very quickly for sports such as vaulting in gymnastics or throwing a javelin where the activity only lasts a few seconds.

This system breaks down glucose into lactic acid. Glucose is derived from carbohydrates. It produces energy very quickly.

Glucose → energy + lactic acid

The lactic acid energy system produces the majority of the energy for moderate to high intensity activities such as running 400 metres. However, lactic acid is a fatiguing by-product of this energy pathway and causes pain and discomfort in the working muscles. It is for this reason that the winner of a 400 m race is typically the athlete who slows down the least.

Athletes showing signs of fatigue and pain towards the end of a 400 m race.

The **aerobic** respiratory system is responsible for producing the majority of our energy while our bodies are at rest or taking part in low-intensity exercise for long periods of time such as jogging or long-distance cycling.

Glucose + oxygen → energy + water + carbon dioxide

Glucose from carbohydrates and fats supply the energy for the aerobic energy system and can supply energy for long periods of time.
Carbohydrate food sources include rice, bread, potatoes, bananas and energy drinks. Fat food sources include butter, oils, cheese, milk and nuts.

LA TELE Y EL CINE

TV/film

Suelo ver - I tend to watch
Me encantan - I love
Me molan - I like
Me chiflan - I'm crazy about
Prefiero - I prefer

No aguanto - I can't stand
No soporto - I can't stand
Odio - I hate

los concursos -gameshows
los programas de deportes - sports programmes
los documentales -documentaries
las series policiaca - crime series
los realitys - reality TV shows
los culebrónes/las telenovelas - soaps
las comedias - a comedys
el telediario/las noticias - the news
los dibujo animados - cartoons
el meteo - the weather
los misterios - mysteries
las películas de amor - love films
las películas de terror - horror films
las películas de acción - action films
las películas de aventuras - adventure films
las películas de animación - animated films
las películas de ciencia - ficción - sci-fi films
las películas de fantasia - fantasy films
las películas extranjera - foreign films

porque son - because they are

divertidos/as - fun
entretenidos/as - entertaining
informativos/as - informative
emocionantes - exciting
interesantes - interesting
adictivos/as - addictive

aburridos/as - boring
tontos/a - silly
malos/as - bad/rubbish
infantiles - childish

LA TELE Y EL CINE

TV/film

Anoche= last night
Ayer= yesterday
Después del colegio= after school
El fin de semana pasado= last weekend.

Vi= I watched
Fui= I went
Comí= I ate
Bebí= I drank
Me gustó= I liked it
Me gustaron= I liked them

La protagonista= the main character
El argumento= the plot
La historia= the story
La música= the music
La ropa= the clothes/costumes

las palomitas de maíz

Fue = it was

Fueron = they were

divertidos/as - fun
entretenidos/as - entertaining
informativos/as - informative
emocionantes - exciting
interesantes - interesting
adictivos/as - addictive

aburridos/as - boring
tontos/a - silly
malos/as - bad/rubbish
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Notes

Notes

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