



Minsthorpe Community College

Knowledge Organiser Year 8 – Spring Term 1

Name:

P&A group:

Knowledge Assessment: Thursday 12th February 2026– Period 3

Vision

Minsthorpe Community College: A place where everyone plays a part in strengthening our learning community through **motivation, commitment and care.**

Motivation ♦ Commitment ♦ Care



Look

**Look at the information carefully.
Read it three times.**
It may help to **say** it as you read it.



Cover

Cover it with your hand or a piece of paper.



Write

Write it out from memory.



Check

**Check what you have written matches the information exactly.
Have you got it correct?
If so, tick your work to show it is correct.**



Correct

**If it doesn't match exactly, use a different coloured pen to correct it.
Repeat.**
When you get it 100% correct, move on to the **next** piece of information.





Subject: English	KPOW: What is Love? Reading	Year 8: Spring Term 1
Week 1 & Week 2	Week 3 & Week 4	Week 5 & Week 6
<p>What is Love? Much Ado About Nothing- Characters</p> <ul style="list-style-type: none"> • Leonato – the Governor of Messina • Hero – Leonato’s daughter (the stereotypical heroine) • Beatrice – Leonato’s niece (the atypical heroine) • Don Pedro – the prince • Don John – the malcontent, Don Pedro’s illegitimate brother • Claudio – the romantic hero • Benedick – the comic wit <p>Vocabulary: stereotypical – adjective: a widely held, but fixed and over-simplified idea of someone or something. atypical – adjective: unusual, not representative of a type, group, or class. antagonistic – adjective: showing or feeling active opposition or hostility towards someone or something. superficial – adjective: a shallow view of what is important, only appearing on the surface. deception – noun: creating misunderstanding or a false view by hiding the truth.</p> <p>Terminology A theme is a fundamental idea or meaning that is central to a text. An oxymoron is a figure of speech putting two contradictory or opposing ideas together eg: the deafening silence. An extended metaphor is a metaphor that continues and is developed over a number of lines or verses. The malcontent is the antagonist, an unhappy character who causes trouble.</p>	<p>Terminology Dramatic irony is a situation when the audience knows something the characters do not. A soliloquy is the act of speaking one’s thoughts aloud on stage. A malapropism is the mistaken use of a word often for a similar sounding one, often with amusing effect. Prose is written or spoken language without rhyme or rhythm. Ordinary sentences, the opposite of poetry. Blank verse is poetry with a regular rhythm that does not rhyme. Bathos is a sudden change from a serious subject to a ridiculous or very ordinary one.</p> <p>Vocabulary duty – noun: a responsibility, a moral or legal obligation. duplicitous – adjective: deceitful, someone who cannot be trusted. gull – verb: the act of deceiving or fooling someone. infidelity – noun: being unfaithful or cheating upon a loved one. treachery – noun: an act of betrayal and deceit. defame – verb: to ruin someone’s good reputation.</p>	<p>Vocabulary misogynist – adjective: a person who strongly dislikes or is prejudiced towards women, a woman-hater. hubris – noun: excessive pride. volatile – adjective: liable to change rapidly and unpredictably. tempestuous – adjective: characterised by strong and turbulent or conflicting emotion.</p> <p>Terminology Antithesis is the placing of opposite ideas together to create a contrasting effect. A pun is a play on words, creating a joke from similar sounding words with different meanings. Context recap: William Shakespeare wrote ‘Much Ado About Nothing’ in 1599. The monarch at that time was Queen Elizabeth 1. It was A patriarchal society. The genre of the play is comedy. It explores the themes of loyalty, deception. and gender. The narrative structure of the play is:</p>





Maths

Week 1: Real life graphs and rate of change

Linear relationships

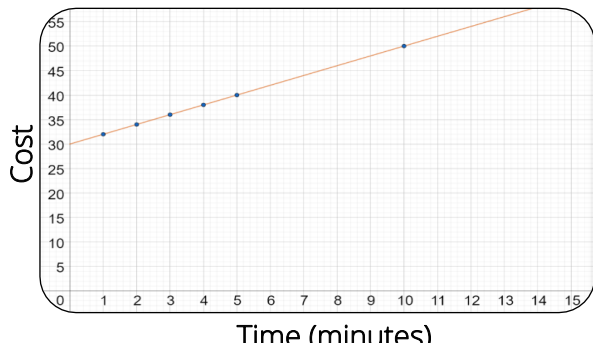
A linear relationship is one that will create a straight line when plotted.

For example:

A mobile phone costs £30 upfront and then £2 per minute on a call.

Time (mins)	1	2	3
Calculation	$£30 + 2 \times 1$	$£30 + 2 \times 2$	$£30 + £2 \times 3$
Cost	£32	£34	£36

Plotting this scenario creates a straight line so time and cost have a linear relationship here.



Piecewise relationships

When a graph has different gradients in different sections it is called a piecewise relationship.

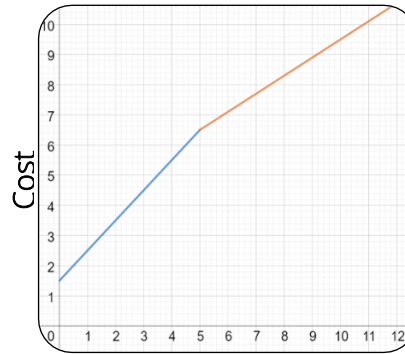
Proportional reasoning

Week 2: Rate of Change

For example:

A taxi drive costs £1.50 call out fee, £1 for the first 5 kilometres and 80p for every kilometre after that.

Here the **blue** and **orange** sections have different gradient, so distance and cost have a piecewise relationship here.

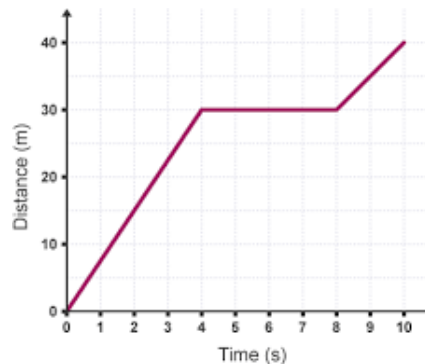


Therefore, we cannot write a single equation to capture both rates.

Distance-time graphs

The gradient of each segment represents the speed something is travelling.

Horizontal line segments show something remaining stationary for a period of time.



Year 8: Spring Term 1

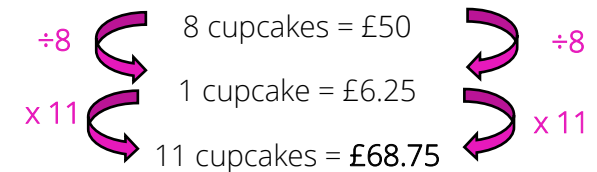
Week 3: Direct and inverse proportion

Unitary method

When it is not obvious what the constant of proportionality is, find the value of 1.

For example:

8 cupcakes cost £50. How much do 11 cupcakes cost?



Direct proportion is where one value **increases**, the other **increases**.

Inverse proportion is where one value **increases**, the other **decreases**.

Direct Proportion

$y \propto x$
 $y = kx$, for a constant k

Inverse Proportion

$y \propto \frac{1}{x}$
 $y = \frac{k}{x}$, for a constant k



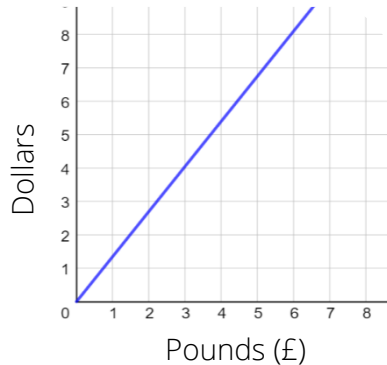


Maths

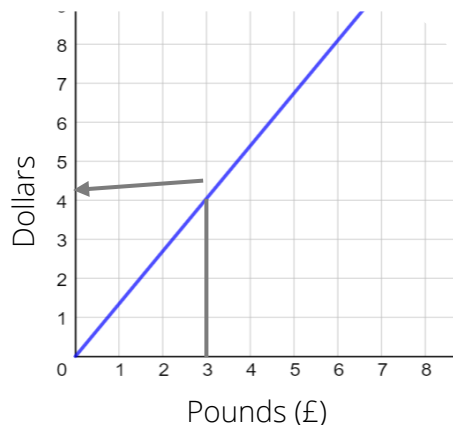
Week 4: Direct and inverse proportion

Direct proportion graphs

If the relationship between two amounts is directly proportional, the graph will be a straight line and go through (0,0). For example:



We can use this graph to help calculate the value of £3 in dollars:



Draw a straight line up from £3 to the graph and then a straight line across to read off £3 = \$4.

Proportional reasoning

Week 5: Univariate Data

Collecting data

Primary data is information that you collect yourself. Secondary data is information that has been collected by someone else for a different purpose.

Types of data

Qualitative data is worded information, such as:

- o What is your favourite chocolate bar?

Quantitative data is numerical, such as:

- o How many pets do you have?

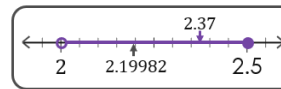
Quantitative data can be separated into two categories: continuous and discrete.

Continuous data are numbers that can take any value within a range, such as:

- o Height
- o Weight

Discrete data can only take certain values, such as:

- o Shoe size
- o Number of siblings



Charts

Data can be collected using a frequency table and then displayed using a bar chart or pie chart

- Frequency: The number of times something happens.

Year 8: Spring Term 1

Week 6: Univariate Data

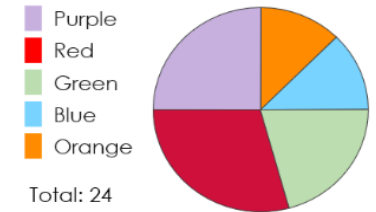
Bar charts

Key features of a bar chart:

- o The bars must be the same width.
- o The bars must be equally spaced.
- o The scale must go up by the same amount.
- o The axis and bars must be labelled.

Pie charts

Pie charts show the proportion of each category.



Averages

To compare

quantitative data, we can calculate averages.

Mode: Most frequent number.

Median: Quantity in the middle of ordered numbers, e.g.

7, 5, 6, 9, 8, 5

5, 5, 6, 7, 8, 9

$$\text{Median} = \frac{6+7}{2} = \frac{13}{2} = 6.5$$

Mean: Total amount shared evenly between the amount of data, e.g.

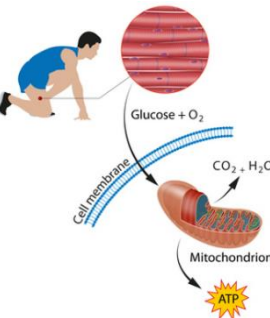
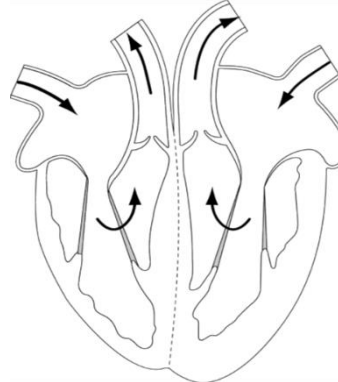
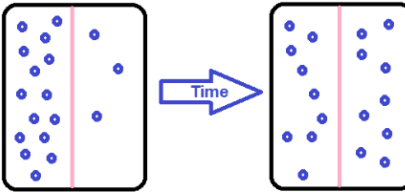
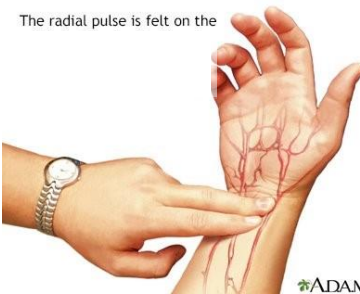
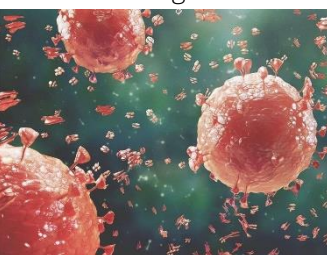
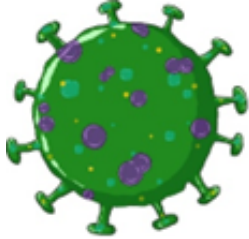
$$\frac{5 + 5 + 6 + 7 + 8 + 9}{6} = \frac{40}{6} = 6.666 \dots$$

The range is not an average, it is a measure of the spread of the data.

Range = highest value subtract the lowest value





Subject: Science - Biology	Assessment Week 2/3	Year 8: Spring Term 1
<p>Week 1: Respiration</p> <p>Respiration: A chemical reaction that breaks down glucose and releases energy.</p> <p>Aerobic respiration: Respiration that happens in the mitochondria in the presence of oxygen.</p> <p>Anaerobic respiration: Respiration that happens in the cytoplasm and not in the presence of oxygen.</p>  <p>Aerobic respiration is constantly happening whereas anaerobic respiration happens when there is a lack of oxygen, often during intensive exercise.</p>	<p>Week 2: Heart and blood circulation</p> <p>Heart: A muscular organ in the chest that pumps blood around the circulatory system.</p> <p>Circulatory system: A series of veins, arteries and capillaries that circulate blood around the body.</p>  <p>The heart is made of four chambers, two atria and two ventricles. The ventricles pump the blood to the lungs and the body. The atria receive blood from the lungs and body.</p>	<p>Week 3: Shark Attack</p> <p>Breathing: The process of taking air into the lungs and then expelling it out of the lungs.</p> <p>Independent variable: The one we change in an experiment.</p> <p>Dependent variable: The one we measure in an experiment.</p> <p>Control variables: The ones we keep the same in an experiment.</p>  <p>Blood particles will diffuse from areas of high concentration to areas of low concentration.</p>
<p>Week 4: Anaerobic Respiration</p> <p>Physiology – Understanding the mechanisms of living things.</p> <p>Heart Rate- The speed at which blood is pumped around the body.</p> <p>Your heart rate or pulse can be measured by feeling the radial pulse just below the thumb.</p> <p>When you exercise your pulse increases to pump more blood around the body.</p> 	<p>Week 5: Fermentation of Yeast</p> <p>Phagocytosis – The engulfing of pathogens and their destruction by enzymes.</p> <p>Pathogen – A microorganism that causes a disease.</p> <p>Vector – An organism that can spread a disease.</p>  <p>There are four main types of pathogens:</p> <ul style="list-style-type: none"> • Viruses • Bacteria • Fungi • Protists <p>Pathogens can be transmitted by direct contact (skin to skin), by water (dirty or contaminated), air (coughs and sneezes), unhygienic food preparation (food poisoning) or a vector (e.g. a mosquito).</p>	<p>Week 6: Structure of the Heart</p> <p>Communicable diseases are infectious which means they can be transferred from one organism to another.</p> <p>Non-communicable diseases cannot be transferred in the same way and are often genetic.</p> <p>Viruses – Tiny particles that cause diseases in people, animals, or plants. Different viruses may cause the common cold, influenza (flu), chicken pox, the measles and many more.</p>  <p>Viruses are so small they can only be seen on very powerful microscopes.</p>





Subject: Science - Physics

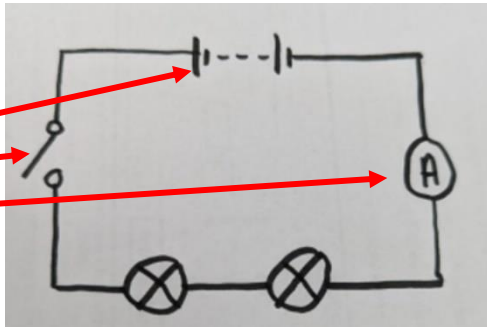
Assessment Week 2/3

Year 8: Spring Term 1

Week 1: Introduction to circuits

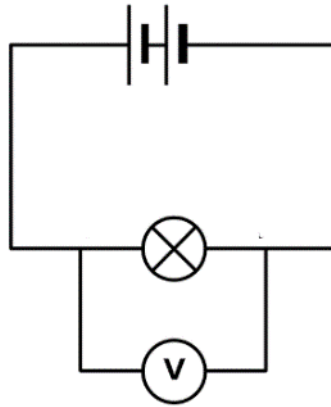
Electrical circuit: A series of wires and electrical components, e.g: switch, lamp, motor.
Current: A measure of how quickly the electrons flow around a circuit, it is measured in amps.
Ammeter: A component used to measure current.

This circuit contains a **battery**, a **switch**, an **ammeter** and two **lamps**.



Week 2: Measuring current and PD

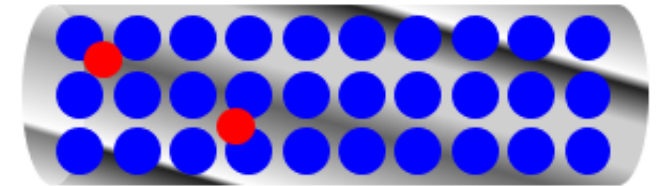
Potential difference (pd): A difference in potential between two points on a circuit, it is measured in volts.
Voltmeter: A component used to measure pd.



When measuring the pd of a component like this **lamp**, the **voltmeter** is always connected to either side of the component. It can be said the voltmeter is **parallel** to the lamp.

Week 3: Calculating resistance

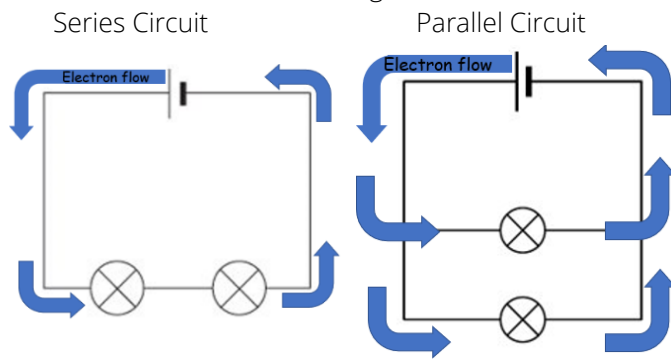
Resistance: Is a measure of how much a material slows down the flow of electrical current, it is measured in Ohms.
Variable Resistor: A component used to change the resistance of a circuit.



When **electrons** (red circles) flow through a wire they experience **resistance** because of all the collisions they have with the **ions** (blue circles).

Week 4: Series and parallel circuits

Series: A circuit where there is only one route for the electrons to flow through.
Parallel: A circuit where there is more than one route for the electrons to flow through.



Week 5: Static electricity

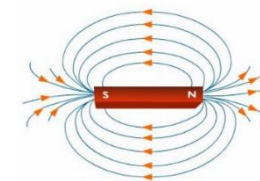
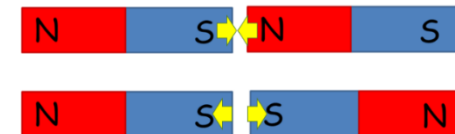
Static Electricity: An imbalance of charge which is formed when electrons are transferred on the surface of an insulator.



When you rub a balloon on your hair, **electrons** go from one to the other. Your hair and the balloon now have **opposite charges** on their surface, so they **attract** each other.

Week 6: Magnets and magnetic fields

Magnetism: A force exerted by magnets when they attract and repel each other.
Magnetic field: An area around a magnet in which a magnetic force is exerted. Like poles will **repel**, whilst opposite poles **attract**.



The **magnetic field** of a bar magnet looks like this with the field arrows going from north to south.





Subject: Geography

KPOW: Glaciation

Year 8: Spring Term 1

Week 1: Glacial Landforms of Erosion

Glaciers **erode** the landscape through the processes of **abrasion** (scraping) and **plucking** (picking). The main erosional landforms are corries, arêtes, pyramidal peaks, and u-shaped valleys.

Hollow = a bowl-shaped dip in the land's surface

Name and description	How does it form?
Corrie – A bowl-shaped hollow at the top of a mountain or hill.	Layers of snow compact and turn into ice – the ice erodes the land.
Pyramidal Peak – Three-sided Mountain.	3 corries erode back-to-back creating a sharp point.
U-Shaped Valley – deep valley with steep sides & a wide valley floor.	When glaciers flow down old river valleys, they make the valley wider and deeper.

Week 2: Glacial Landforms of Deposition

Glaciers **deposit** material when they lose energy. This material is called **moraine**.

Terminal moraine is found at the **snout** (end) of a glacier. **Lateral moraine** is found at the **sides** of the glacier.

Landforms:

- **Erratics** are large boulders that do not fit in with the surroundings. They have been carried there by the glacier and deposited when it melted.



Drumlins are small hills that look like the back of a spoon.

Week 3: Tourism and Glaciation

The Lake District has great examples of glacial **landforms**. It is a National Park, which is **an area where the landscape is preserved and protected**. However, **conflict** can arise between locals and tourists who want to use the National Park for different reasons.

Around **18 million** people visit the Lake District each year to hike, bike ride, climb and do water sports there.

Advantages = Tourism **creates jobs** and money from tourists can be used to preserve the area and improve local facilities.

Disadvantages = Tourism can cause traffic and **congestion**; holiday homes drive up the house prices for local families and tourism can create more pollution and litter.



Week 4: Glaciation KPOW

KPOW – Keywords recap

Glacier - A large mass of ice, shaped like a river.

Plucking - Ice freezes to rock then pulls away large pieces.

Hollow - A bowl-shaped dip in the land's surface.

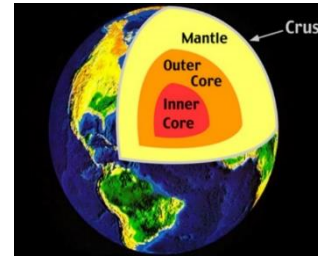
Deposition - Dropping sediment.

Tourism - When people travel away from home for pleasure.



Week 5: New Topic – Our Restless Earth

The Earth is split into **four** layers, the inner core, outer core, mantle, and crust. The crust is the **outer** layer of the Earth. There are **two types of crust** **oceanic** and **continental crust**. The crust is split into tectonic plates. Where the plates meet is called a **plate boundary**. There are three types of plate boundary.



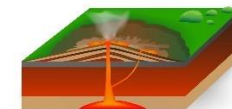
- **Destructive** - the plates move **together**, and one sinks under the other.
- **Constructive** - the plates move **apart**.
- **Conservative** - the plates slide **past** each other.

Week 6: Types of Volcanoes

A volcano is a **vent** (opening) in the Earth's crust through which magma rises.

Shield volcanoes are formed at **constructive** margins where the **plates move apart**. They produce runny lava that flows long distances creating gentle sides. Eruptions are usually gentle.

Composite volcanoes are formed at **destructive** margins, where the plates **move towards each other**. They produce thick lava that flows short distances creating steep sides. Eruptions are usually violent.



Shield volcano



Composite Volcano





Subject: History

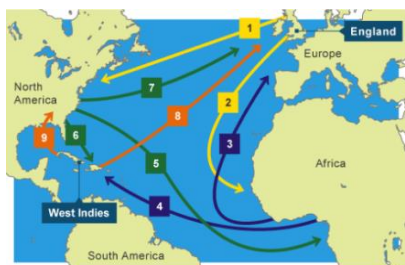
KPOW: Yaa Asantewaa: A hero?

Year 8: Spring Term 1

Week 1 & Week 2: Slave Trade and Experiences

Week 3 & Week 4: Abolition and Asante

Week 5 & Week 6: Yaa Asantewaa and KPOW



1	Manufactured goods, luxuries	6	Fish, flour, livestock, lumber
2	Guns, cloth, iron, beer	7	Whale oil, lumber, furs, rice, silk, indigo, tobacco
3	Gold, ivory, spices, hardwoods	8	Sugar, molasses, wood
4	Slaves	9	Slaves, sugar, molasses
5	Rum, iron, gunpowder, tools		

What was the Slave Trade?

Human beings were bought and sold.

'Triangular Trade' was the sailing route taken by British slave traders. It was a journey of three stages.

Stage 1: The Capture of African People

Criminals and members of rival tribes were sold into the slave trade as a punishment. Others were kidnapped by European slave traders.

Stage 2: The Middle Passage: African people were treated as cargo; they were shackled by their arms and legs and taken from Africa to the Americas across the Atlantic Ocean.

Stage 3: How enslaved people were sold in the Americas.

Enslaved people were sold by auction to highest bidder and sent to work on plantations.

Life on the plantations

Enslaved people were forced to work on plantations without pay to grow crops such as coffee and sugar. Workers were split into gangs depending on ability, age, health, and gender.

Punishments: Enslaved people were punished in several ways, for example whipping and beatings were common for stealing food or refusing to work.

Why was the Slave Trade abolished in Britain in 1807?

1 – Slave resistance made the trade less profitable and less attractive. Some enslaved people used passive resistance e.g. pretending to be sick. Others used active (violent) methods e.g. burning crops/attempting to kill their master.

An example of successful resistance:

Enslaved people of St Dominique violently resisted, this led to the abolition of slavery on the island in 1804 and the creation of independent Haiti.

2 – Abolitionists were people who helped to end slavery. For example, William Wilberforce was an MP who made many speeches in parliament against the slave trade. Victory? In 1807 the slave trade was abolished. Slavery itself was later abolished in 1833.

3 - Economy: From the 1770s onwards, the West Indies became less important to Britain as Cuba and Brazil could produce cheaper sugar, as a result many plantations in the West Indies were closed. Therefore, less enslaved people were needed.

History of an African nation: Rise of Asante

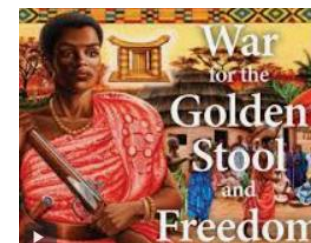
The Asante rose to power in Africa in the 1700s. The Akan people (later the Asante people) traded gold and enslaved people in return for weapons, with the Portuguese - increasing their economic and military strength.

Fall of the Asante Kingdom

After the banning of the slave trade in 1807 – Britain was looking for a new way to profit from West Africa, so they attempted to colonise the region. The Asante put up a formidable opposition and managed to remain independent for almost a century. It took 4 wars for the British to gain control of the Asante area

Why should Yaa Asantewaa be remembered?

The kingdom of the Asante was a matrilineal society - people living there inherited their mother's name and status not their fathers.



The Asantehema (Queen mother) would advise the male Asantehene (ruler). Some argue she was a co-ruler. They would sit on chairs of equal size to show their equal status. Women proved their power in Asante when the Asantehema led a rebellion against the Asantehene in 1820.

Significance: After the 4th Anglo-Asante war in 1896, the Asantehene was exiled by the British leaving the Asantehema – Yaa Asantewaa to rule over the Asante people. She then led her people in war against the British over the Golden Stool (believed to hold the souls of the Asante people). Initially, the Asante men did not respond to her call to war – they soon changed their minds when she threatened to call on the women instead.

Results: Short term: The British army defeated the Asante and exiled Yaa Asantewaa. However, they were not able to take the Golden Stool – Yaa Asantewaa proved she was a hero by keeping the Stool safe. Consequently, protecting the souls of her people.

Long-term: After being colonised by the British the Asante Kingdom became known as Ghana. After WW2, the Ghanaian people wanted a reward: Their freedom. They became the first colonised African nation to gain independence in 1957. Their leader used the stories of Yaa Asantewaa to inspire his people to fight for this.





Subject: DT - Food

KPOW: End of Module

Year 8: Spring Term 1

Week 1 & Week 2

Week 3 & Week 4

Week 5 & Week 6

Kitchen Health and Safety recap from year 7

- Aprons must be worn during all practical sessions to protect against burns and splashes.
- Long hair must be tied back.
- Hands must be washed regularly throughout but always at the start.
- Equipment must be washed, dried, and put back after use.



Knife safety

Bridge method- when the hand is curled and shaped like a bridge for knife to go under- rounded products, like apple, strawberries, and onion.

Claw method- when a product is gripped by the fingertips in a claw shape and the fingertips are pulled back for safety before cutting- long products such as cucumber and leeks.

The bridge and claw method can be used to produce fruit kebabs with a garnish.

Weighing and measuring ensures **accuracy** when making food during practicals. Always measure in grams (g).



Bread ingredients

- 500g Strong Plain flour, 1 sachet yeast, 1 teaspoon salt, 25g margarine, 1 teaspoon sugar, 1/2 pint warm water
- Extra ingredients e.g.: Cheese, tomato puree, pepperoni, cocoa/chocolate, berries

Function of ingredients

So what is in bread? What do the ingredients do?

Flour
Flour is the main ingredients and forms the framework of the bread.
Dextrinization
(The effect of dry heat on starch) occurs when bread is cooked.

strong white bread flour by Sainsbury's

Yeast produces Carbon Dioxide (CO2) GAS, which makes the bread rise.
FOOD. WARMTH. MOISTURE. TIME
In order to multiply.

Water (H2O) is needed to **Bind** the ingredients together & help the gluten development.
Water is needed for the yeast to ferment.

Fat & Oil **Weaken**
The gluten and **Restrict**
the action of the yeast. This gives it a close texture.

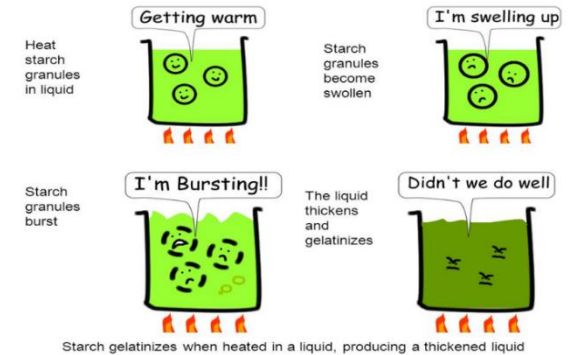
Salt and/or sugar, adds **Flavour** & aids the development of Gluten.

Method for making bread

1. Weigh out the ingredients
2. Add bread flour, sugar and butter in a bowl
3. Rub in until light and golden – add salt
4. Make a well and add yeast and extra flavouring
5. 150 ML of warm water A DROP AT A TIME
6. Mix until it forms a dough - IF DRY ADD MORE WATER IF WET ADD MORE FLOUR
7. Knead on a floured surface for 8 minutes until stretchy
8. Shape into desired shape and place on a baking tray to prove
9. Bake at 220 degrees for 15-20 minutes

Gelatinisation

This is the process that occurs when making a sauce and it thickens. A plain sauce is called a ROUX sauce.



Dishes that use a ROUX sauce are:

Macaroni Cheese / Carbonara Ingredients

- 25g (40g for thicker sauce) Plain flour
- 25g (40g for thicker sauce) Margarine
- 1 pint milk, 200g cheese, 300g Pasta

Topping – 100g cheese and/or breadcrumbs (optional)

Extra ingredients that can be added - Bacon, cooked chicken, onions, mushrooms, garlic etc

Lasagne

- 50g Plain flour
- 50g Margarine
- 1 pint milk
- 200g cheese
- 1 pack lasagne
- 1 pack mince meat
- 1 onion (optional)

1 tin tomatoes and ½ tube tomato puree OR 1 tin of tomato pasta sauce

Extra cheese for the topping

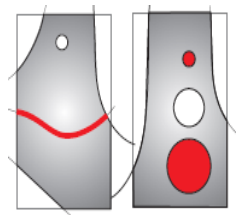
Garnish = a small amount of food used to decorate other food e.g. Parsley or herbs





Subject: DT – Product Design

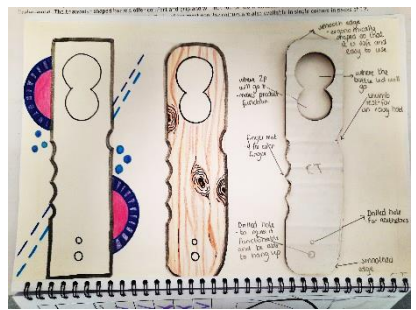
Week 1 & Week 2: Dull to Dynamic Strategy



Design rules – Generating quick sketches to help develop unique designs.

Dull to Dynamic strategy helps create the final idea considering **anthropometric**

measurements (so the bottle opener fits in the hand comfortably when using it). Dull to dynamic means turning a basic (dull) idea, into a dynamic outcome.



Key terms:

Ergonomics - The study of people and their working environment, especially to improve effectiveness.

Specification – Precise description of the design and make details that the final product is required to achieve/ meet.

Theory

Workshop Health and Safety.

- Goggles must be worn on all workshop machinery.
- Long hair must be tied back on machinery.
- Aprons must be worn during all practical lessons.

Key terms:

PPE – Personal Protective Equipment

KPOW: Design & Evaluation

Week 3 & Week 4: Wooden Bottle Opener



Workshop skills to cut and shape and smooth the bottle opener using a range of tools and equipment. Product should **reflect** the design and match the **design specifications** given.

Tools and equipment

Countersink drill bit –Drills a cone like hole so the flat head screw sits flush against the wood.

Chuck key – Attaching drill bit to the pillar drill.

Forstner drill bit – Drill blind holes (the holes to attach the 2p and open your bottle).

Chuck key – Used to attach drill bit to the pillar drill.

Evaluation

You will evaluate your completed product and your skills in detail looking at **WWW** (what went well) and **EBI** (even better if). Testing for quality of finish.

Theory

Ergonomics = making products efficient to use. Ergonomics considers issues such as:

- Shape
- Size
- Pressure
- Use
- Features

Ergonomics uses **anthropometrics** (size) to improve products and make them comfortable to use.

Year 8: Spring Term 1

Week 5 & Week 6: Storage Box



Workshop skills - measure, mark and cut **½ lap joints** and shape a **frame for the wooden storage box**

complete with **inserts**. **Decoupage** – gluing pictures to the surface and sealing with varnish.

Key words:

Tenon saw – Cuts straight lines.

Tri square – Used to mark and check 90* angles.

½ lap joint – A joint between two timbers halved together so they overlap each other to create a flush surface.

Metal file – A tool to shape and smooth materials.

Filler – a mixture of PVA glue and sawdust to create a wood filler that is designed to fill holes and imperfections.

Aesthetic – Pleasing qualities of a product e.g., shape, design, colour, pattern.

Keystone 10cm = 100mm (for every 1 cm = 10 mm)

Theory
Product Analysis – looking at existing products and studying how well they do their job looking at

ACCESS FM – Aesthetics, cost, customer, environment, size, safety, function, materials.





Subject: DT - Textiles

Week 1 & Week 2

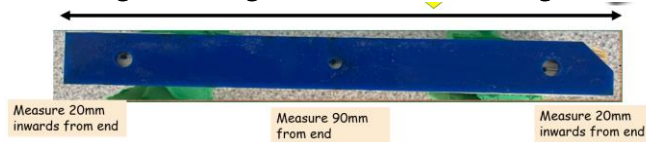
Mixed Materials Storage Product

Taping wood together:



Tape around the wood with masking tape to hold it firmly so that you can then accurately drill all 4 pieces together.

Measuring & Marking the wood before drilling it:



The blue template that is used to help you achieve accuracy is called a 'JIG' (something that guides you to achieve the same again and again therefore consistent and accurate).

Design theme: Pop Art – Art movement of 1950s & 60. Challenged traditional fine art using images from popular culture like comic books and product labels – everyday life things. It uses bright colours. Famous artists of this movement include Andy Warhol and Roy Lichtenstein.



KPOW: Storage Product

Week 3 & Week 4

Creating a block print



Place template on foam, draw round, cut out, stick on block with double-sided tape.

Creating patterns using a block:



THEORY: SMART materials Respond Automatically to a Changing Environment (RACE = acronym) Examples of change are: temperature, light, electrical current, pressure and motion.

Microencapsulation: microscopic bubbles filled with a substance then sprayed onto fabric. Examples of substances are anti-bacterial, fragrance, antiallergic & mosquito repellent.

D30 = smart material that is like playdough until it is hit (blunt force), its molecules then lock solid.

Thermo chromic = dyes that change colour in response to changes in TEMPERATURE.

Photo chromic = dyes that change colour in response to ULTRAVIOLET LIGHT (UV).

Year 8: Spring Term 1

Week 5 & Week 6

Product Analysis

Investigating similar products to those you wish to design and make. Gathering useful information such as what materials they are made from, the cost, the function, what is successful about them and what, in your opinion would make them even better.

A Hem – the finish made to the bottom of clothes such as trousers and skirts. The edge is turned up to create a neat finish (overlocked and turned, or turned twice so no raw edge).

Plain Seam – how most clothing is joined, it's the most common joining seam. Two pieces of the garment are laid together and sewn on the Seam Allowance (normally 1.5cm).

Casing – this is like a hem, but the fold is larger which creates a space between the stitch and the top that something like elastic or a drawstring could be pulled through. For this project, the space will need to be big enough to push the dowel through.



THEORY: modern materials that have been created through technological development. Examples of such are Kevlar (V strong, bullet proof vests), Super hydrophobic (repels water), Nomex (fire resistant), Carbon Fibre (light, rigid – racing cars) and Rhovyl (long lasting antibacterial).





Subject: Core PE

Week 1 & Week 2: Strain

Definition- A stretch or tear in the muscle. Sometimes this is known as a pulled muscle. Strains occur due to overstretching.

Example- A footballer might strain their hamstring when they are overstretching for an interception.

Prevention of injury- A strain could be prevented by doing a proper warm up and stretching before exercise.



KPOW: Key Words

Week 3 & Week 4: Concussion

Definition- A concussion is a mild head / brain injury. It's caused by a blow to the head or by whiplash.

Example- A rugby player might get a concussion if there is a clash of heads or if there is an impact with the ground.

Prevention of injury- A concussion can be avoided by playing to the rules of the sport or by wearing protective headwear.



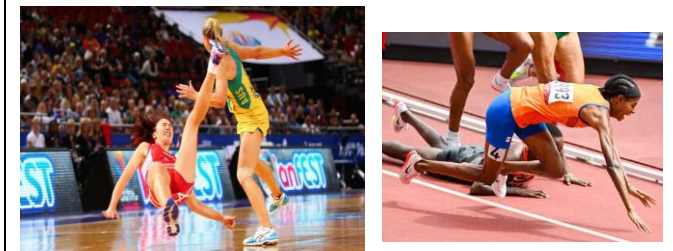
Year 8: Spring Term 1

Week 5 & Week 6: Dislocation

Definition- A dislocation is where one of the bones at a joint comes out of place.

Example- A netball player may dislocate their shoulder if they put their arms out to stop a fall.

Prevention of injury- A dislocation could be avoided by playing to the rules of the sport and avoiding any unnecessary contact.





Subject: Computing & Digital Media	KPOW: Number Systems	Year 8: Spring Term 1																																												
Week 1 & Week 2	Week 3 & Week 4	Week 5 & Week 6																																												
<p>Keywords: Denary: Also known as decimal, a base 10 number system that uses 10 different units (0-9). Binary: A base 2 number system, that uses two units: 1 and 0.</p>	<p>Keywords: Hexadecimal: A base 16 number system that uses 16 different units (0-F). Binary Overflow: 8-bit binary has a maximum value of 11111111 (255). Anything over this value, for example 278 will produce an overflow error.</p>	<p>Keywords: Storage: Something that holds data. LAN: Local Area Network WAN: Wide Area Network</p>																																												
<p>Computers uses the binary number system since the CPU is made up of billions of transistors. These are like switches which turn on and off (1 and 0).</p> <p>Humans use the denary number system; this is our standard counting numbers. We need to convert between binary & denary.</p> <p>A binary number is written as a pattern of 8 digits, each digit is either a 0 or a 1. We use placeholders to help us read and write binary numbers.</p> <p>The pattern 00001001 when written out under the placeholders would be the number 9 as shown below: (8 + 1 = 9)</p> <table border="1" data-bbox="109 1038 766 1114"> <tr> <td>128</td><td>64</td><td>32</td><td>16</td><td>8</td><td>4</td><td>2</td><td>1</td> </tr> <tr> <td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>1</td> </tr> </table> <ul style="list-style-type: none"> Converting denary into binary: 66 = 01000010 (0+64+0+0+0+0+2+0). Converting binary into denary: 01010001 = 81 (0+64+0+16+0+0+0+1). 	128	64	32	16	8	4	2	1	0	0	0	0	1	0	0	1	<p>Binary addition rules</p> <table border="1" data-bbox="808 528 1435 676"> <tr> <td>Rule One:</td><td>0 + 0 = 0</td> </tr> <tr> <td>Rule Two:</td><td>1 + 0 = 1</td> </tr> <tr> <td>Rule Three:</td><td>1 + 1 = 10 (binary for 2)</td> </tr> <tr> <td>Rule Four:</td><td>1 + 1 + 1 = 11 (binary for 3)</td> </tr> </table> <p>Hexadecimal number system Numbers 0 – 9 are the same as denary.</p> <table border="1" data-bbox="808 786 1435 861"> <tr> <td>Den</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td> </tr> <tr> <td>Hex</td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td> </tr> </table> <p>Converting Binary to Hexadecimal</p> <ol style="list-style-type: none"> Break the binary up into groups of 4 digits. Convert each group of 4 digits into denary. Convert each denary value into its hex. Put the hex digits together. <p>Converting Hexadecimal to Binary</p> <ol style="list-style-type: none"> Split the hex number into 2 individual digits. Convert each hex value into denary. Convert denary digit into 4 binary digits. Combine all 8 binary digits to make one 8 bit binary number. 	Rule One:	0 + 0 = 0	Rule Two:	1 + 0 = 1	Rule Three:	1 + 1 = 10 (binary for 2)	Rule Four:	1 + 1 + 1 = 11 (binary for 3)	Den	10	11	12	13	14	15	Hex	A	B	C	D	E	F	<p>Primary storage: is directly accessed by the CPU and is fast access memory.</p> <p>Secondary storage: is slower and is used for long term storage of files. There are 3 types of secondary storage:</p> <table border="1" data-bbox="1485 746 2130 895"> <thead> <tr> <th>Magnetic</th> <th>Solid State</th> <th>Optical</th> </tr> </thead> <tbody> <tr> <td>Hard disk drive (HDD) Tape drive</td> <td>USB Flash drive SD Card</td> <td>CD DVD Blu ray</td> </tr> </tbody> </table> <p>Types of networks: LAN covers a small geographical location. E.g. LANS are used in small businesses, schools, and in homes.</p> <p>WAN covers a large geographical location. e.g: The internet is the largest WAN.</p>	Magnetic	Solid State	Optical	Hard disk drive (HDD) Tape drive	USB Flash drive SD Card	CD DVD Blu ray
128	64	32	16	8	4	2	1																																							
0	0	0	0	1	0	0	1																																							
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Subject: Music

Week 1 & Week 2: Introduction to ensemble

Shut up and Dance:

"Shut Up and Dance" is an energetic pop song performed by the band Walk the Moon. The song features a driving 4/4 beat, infectious melodies and upbeat lyrics.



Ensemble:

A group of musicians performing in time.



Vocal Projection:

The strength of speaking or singing whereby your voice is used powerfully and clearly. You should project your voice when singing as part of an ensemble.



Pulse:

A steady beat.



KPOW: Shut Up and Dance

Week 3 & Week 4: Building confidence

Confidence:

To believe in yourself and your abilities to perform. Showing confidence in your performance helps you connect with the audience and convey musical expression effectively.



Fluency:

To be in time and have no pauses or mistakes.



Communication:

Effective communication helps ensemble members stay in time with each other leading to an accurate performance.



Stage Presence:

The ability to engage with the audience and convey confidence during a performance.



Year 8: Spring Term 1

Week 5 & Week 6: KPOW performance

Rehearsal:

A practice session where musicians come together to prepare for a performance. It allows musicians to work on timing and build their confidence.



Expression:

The communication of emotions and feelings through music. It helps the audience connect with the performance.



Timing:

Playing in time to the beat. It ensures that musicians play together in sync. It's essential for creating an accurate performance.






Adaptability:

The ability to adjust, change, or respond to new situations. It allows musicians to navigate unexpected situations, collaborate effectively with others and maintain an accurate performance.








Subject: Art	KPOW: Culture - Pop Art	Year 8: Spring Term 1
Week 1 & Week 2: Baseline	Week 3 & Week 4: Artist Page	Week 5 & Week 6: Artist page development
<p>Keywords and definitions</p> <ul style="list-style-type: none"> • Depth: The perceived distance between the background and foreground of a composition. • Influence: The capacity to have an effect on the character, development or behaviour of someone or something. • Research: A creative activity to increase knowledge and understanding. <p>Observational Drawing: to record a subject as accurately as possible.</p> 	<p>Research – Pop Art. Sarah Graham</p> <p>During this topic you will learn about Pop Art and the artist Sara Graham.</p> <ul style="list-style-type: none"> • Popular Culture: is all the elements that make up our everyday life. This includes our routines, jobs, fashions, food and belongings and are usually shared interests with our friends, families and communities. • Pop (short for popular) Art: is an Art movement from the 1950s to 1960s. The movement challenged the idea of other traditional art forms by including imagery from popular culture such as advertising, comic books and regular, everyday items. • Sarah Graham: works with oil paints on canvas to create hyper realistic paintings. She uses everyday objects to inspire her work. 	<p>Artist page development.</p> <p>Create a page all about the Pop Art. Think about the layout carefully. This page is very important as it will form the basis of the next stage of your project. Change the size of images, overlap and add pencil colour using your knowledge of colour blending.</p> <p>Outcome: A piece of Art that you have created using inspiration from others along with your own ideas.</p> <p>Layout: The arrangement of elements on a page usually referring to specific placement of image, text and style.</p> 





Subject: Drama	KPOW: Physical Theatre	Year 8: Spring Term 1
<p>Week 1 & 2: Introduction to Physical Theatre</p>	<p>Week 3 & Week 4: Techniques</p>	<p>Week 5 & Week 6: Practical Exploration</p>
<p>Physical Theatre - is a type of performance that uses physicality of movement as the primary method of storytelling.</p> <p>Warm up: prepare for physical activity or a performance by exercising or practising beforehand.</p> <p><i>'Warming up your body before a performance is critical for the actor.'</i></p>  <p>Break into 8: is a physical theatre device with 8 simple steps.</p> <p>Canon: when an actor performs a phrase of movements one after the other.</p> <p>Synchronised Movement: when two or more actors move in the same way at the exact same time.</p> <p>Transition: The movement from one scene to another is called a transition.</p>	<p>Frantic Assembly: an internationally renowned physical theatre company founded in 1994.</p> <p>Abstract Theatre – Abstract theatre is centred around the concept of representing situations and emotions, as opposed to acting them out in a realistic way.</p> <p><i>'Our aim is to make inspiring and accessible work across the world.'</i></p>  <p>Mirroring – Partners stand facing each other. One is the leader, the other is the "mirror." The leader begins to make simple gestures or movements. The "mirror" duplicates the leader's movements exactly how a mirror would.</p> <p>Round by Through: When you create a series of movement by going 'round' your partner, being 'by/parallel to your partner and going 'through' your partner.</p>	<p>Verbatim – Copied, quoted, or translated in the same words as were used originally.</p> <p>Rehearsal: a session of exercise or practice, usually private, in preparation for a play or a performance.</p> <p><i>'Don't practice until you get it right. Practice until you can't get it wrong.'</i></p>  <p>Performance – An act of presenting a play, concert, or other form of entertainment.</p> <p>Peer Feedback – Enables the performer to improve their work, based on feedback of strength and weaknesses.</p> <p>Self - Reflection – Enables you to question your performance work, in a positive way, what you do and why you do it and then deciding whether there is a better, or more efficient, way of doing it in the future.</p>





Subject: Learning 4 Life






Week 1 & Week 2: Key Words

Please learn the definitions of the following 12 words:

Segregation	To separate black people from white people.
Equality	To treat all people in the same way.
Civil Rights	The rights of all people to receive equal treatment.
Sexism	The belief that some people are superior to others due to their sex
Suffragettes	Women seeking the right to vote through organised protests.
Martyr	A person who is killed because of their religious or other beliefs.
Campaign	To work in an organised/active way towards a particular goal.
Motivation	A reason for acting/behaving in a certain way.
Racism	The belief that some people are superior to others due to their race.
Commitment	To be dedicated to a cause.
Aspiration	A dream or ambition to achieve something.
Compassion	Sympathetic pity and concern for the sufferings or misfortunes of others.

Week 3 & Week 4: Lazarus & the Rich Man







Please read and learn the story below:
Lazarus and the Rich Man

	The rich man had everything he needed and more.
	Lazarus had nothing but he always did all he could to help others.
	The rich man does nothing to help Lazarus, he even forbids his servant from giving Lazarus his scraps.
	When the rich man dies he goes to Hell. This is because didn't help Lazarus when he was alive.
	When Lazarus dies he goes to Heaven. This is because he was always willing to help others.

Year 8: Spring Term 1

Week 5 & Week 6: The Suffragettes

Please learn these key facts below;
The suffragettes were women who organised protests in order to earn the right to vote for women.
Read and learn the facts below about the suffragettes:

	There were many women who were suffragettes including: Millicent Fawcett, Emmeline Pankhurst and Emily Wilding Davison
	The suffragettes weren't scared to speak out, they even shouted at Winston Churchill when he was an MP
	The suffragettes protested in many ways; chained themselves to Buckingham Palace, burned down churches and attacked politicians
	In 1913 the Cat and Mouse Act was introduced which meant those in prison on hunger strike could be released then re-arrested when healthy again
	Emily Wilding Davison is famous as she was killed by the King's horse at the Epsom Derby trying to place a suffragette sash on the horse mid race.
	Finally in 1918 women over the age of 30 earned the right to vote. It wasn't until 1928 that women were given the same voting rights as men





Home Learning Schedule

Day	Subject to Learn	
Monday	English and Learning 4 Life	
Tuesday	Maths and Computing & Digital Media	Sparx Week B
Wednesday	Science	Educake Week A
Thursday	French, History and Geography	
Friday	Design Technology, PE & Creative	



Home Learning is set, on Satchel:One, every **Monday** and will be submitted in P&A Time every **Monday**.

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