



Minsthorpe Community College

Knowledge Organiser Year 8 – Autumn Term 2

Name:

P&A group:

Knowledge Assessment: Wednesday 20th December 2023 – 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: How does Steinbeck explore the theme of 'Outsiders'	Year 8: Autumn Term 2
Week 1, 2 & 3: Racism and Social Injustice		Week 4 & 5: Outsiders and the American Dream	Week 6 & Week 7
Motif – Dominant or recurring idea in an artistic work. The word motif (moh-teef) is derived from the French phrase motif meaning “pattern.” Social Mobility – The ability to change an individual's social class or status. Pugnacious – Eager or quick to argue, quarrel or fight. Injustice – Lack of fairness Intertextuality – Relationship between literary texts. Stereotype – A widely held but fixed & oversimplified image of a particular type of person or thing. Steinbeck uses the motif of animal imagery to reveal both Lennie's physical strength (Bear/paws) and his emotional state. (Sheep/Bleating). Racism in the 1930's Crooks is a victim of segregation and racism on the ranch. He is made to sleep in the harness room with the horses depicting how he is treated like an animal. This kind of treatment towards black people was not uncommon at this time despite slavery being abolished in 1865. Lynching (to kill someone for an alleged offence without a legal trial, especially by hanging) was not an illegal act until 1928. So, when Curley's wife threatens to get Crooks 'Hung up on a tree', it is a genuine threat. An example of intertextuality is Amy Saunders poem 'You're not black'. In the first stanza she uses lines from Billie Holiday's famous song inspired by Lynchings in The Southern states of America. I sit with them at lunch Fried chicken on my plate I eat with a knife and fork "You're not black, if you don't use your hands to eat" Yet I know that hands tied up the strange fruit on the trees in the south The fruit for the crows to pluck For the rain to gather, for the wind to suck For the sun to rot, for the trees to drop.*		Contemptuously – To be scornful, disrespectful. Indignation – Anger and annoyance at what is perceived as unfair treatment. Optimistic – Hopeful about the future or the success of something. Subjugate – To bring under control. Façade – A deceptive outward appearance. Structure refers to how a text is organised and how the parts all fit together. Steinbeck deliberately structures Of Mice and Men to show the effects of prejudice on the characters hopes and dreams. The motif of light is used to represent hope in Of Mice and Men. It could also ne used metaphorically for joy, love or good versus evil. Metaphor (a figure of speech that describes and object or action in a way that isn't literally true) in poetry is an effective device as it helps to create a better picture in the reader's mind. "The moon was a ghostly galleon tossed upon cloudy seas" <i>The Highwayman, by Alfred Noyes</i>  "Darkness cannot drive out darkness; only light can do that." <i>Martin Luther King</i>  "Hope is the thing with feathers." <i>Emily Dickinson</i>  The American Dream: An ideal that every citizen of the United States should have the opportunity to achieve success and prosperity and happiness through hard work and determination regardless of their social class or background. Steinbeck believed that The American Dream was a fallacy and demonstrates this through his characters' shattered dreams and loss of life.	Inevitable: A situation that is unavoidable or certain to happen. Relatable: Enabling a person to feel that they can relate to someone or something. Outdated: Out of date Controversial: Giving rise to controversy or disagreement. Cyclical structure: A structure that refers to the focus of the end of the text being related somehow to the focus of the beginning. Steinbeck uses a cyclical structure to represent the natural cycles of nature and the inevitability of Lennie's death. A couple of other examples of cyclical structures... Beginning  At the beginning of Disney's 'Lion King', Simba, the protagonist is born and presented to the kingdom with his mother and father on Pride rock. After a long and arduous battle to regain power of the kingdom from his evil uncle, Scar, Simba and his wife return to pride rock with their own child - balance and equilibrium is returned to the  End  Beginning  At the beginning of Shakespeare's 'Macbeth', the eponymous character battles with the traitor Macdonald and is victorious in battle. At the end of the play, after Macbeth usurped the throne from his king, the play ends with a battle between Macbeth and Macduff, a loyal defender of the true heir to Scotland. Macbeth is defeated and the Throne of Scotland is returned to its rightful heir.  End 





Subject: Maths

Week 1: Linear Graphs

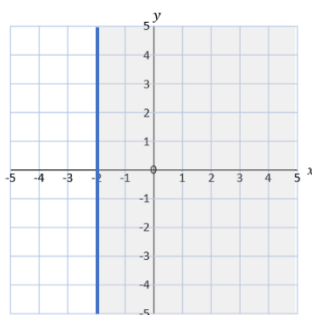
Graphical inequalities

We can represent a region on a graph that satisfies the inequality.

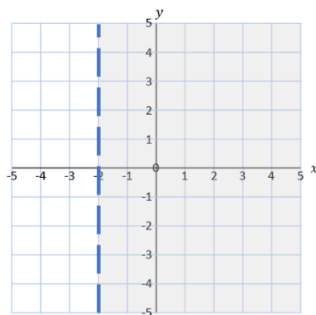
When the inequality is less than or greater than ($<$, $>$) but **equal to** use a **dotted** line.

When the inequality is less than or greater than ($\leq$, $\geq$) and **not equal to** a **solid** line is used.

For example



This region represents the inequality $x \geq -2$.



This region represents the inequality $x > -2$.

Table of values

To plot a straight-line graph, use a **table of values** to create coordinates.

For example

Plot the line $y = 2x + 1$

x	-2	-1	0	1	2	3
y	-3	-1	1	3	5	7

Complete the table by **substituting** in the values of **x** to get the values for **y**.

KPOW: Equations and Inequalities

Week 2: Linear Graphs

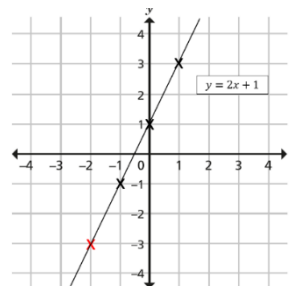
For the first value $x = -2$ so $y = 2 \times -2 + 1$

$$y = -4 + 1$$

$$y = -3$$

This creates the co-ordinate **(-2, -3)**.

All the co-ordinates are then plotted and joined up to create a straight line:



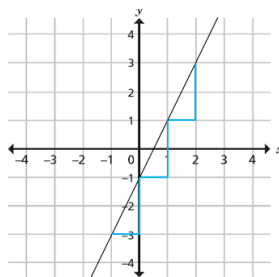
Equation of a line

The general equation of a line is $y = mx + c$.

m represents the **gradient** of the line and **c** represents where the line **intercepts** the y-axis. **Gradient** is a measure of how steep the line is.

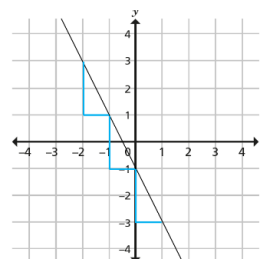
For example

This line has a gradient of 2 and it crosses the y-axis at (0, -1) so the equation of this line is $y = 2x - 1$.



This line has a gradient of -2 and crosses the y-axis at (0, -1) so the equation of this

line is $y = -2x - 1$.



Year 8: Autumn Term 2

Week 3: Accuracy and Estimation

Keywords

Approximation: A result that is not exact, but is close enough to use.

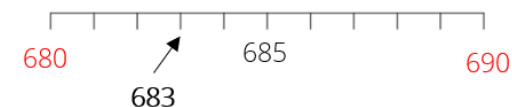
Integer: A whole number.

We use rounded numbers to make the numbers easier to use. For example, if there is exactly 1 978 547 people at a football match we might use 2 000 000 as an **approximate** number.

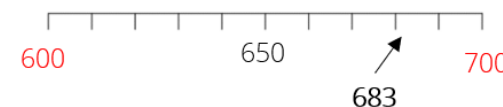
Rounding to powers of 10

683 rounded to the **nearest ten** is 680 because 683 is closer to 680 than 690.

680 rounded to the nearest 100 is 700 because 680 is

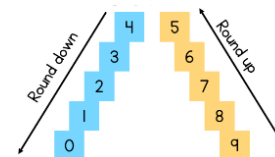


closer to 700 than 600.



Use the approximately symbol ($\approx$) when rounding. For example,

$$683 \approx 700.$$



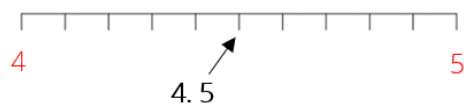


Subject: Maths

Week 4: Accuracy and estimation

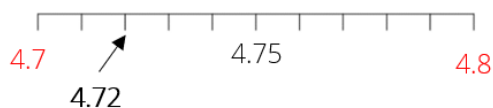
Rounding to the nearest integer

4.5 rounded to the nearest **integer** is **5** because it is exactly **half way** between **4** and **5** and when the number lies **half way** between then round up.



Rounding to decimal places

4.72 is closer to **4.7** than **4.8** so $4.72 \approx 4.7$ to the nearest one decimal place.



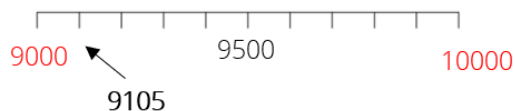
Significant figures

The first significant figure is the digit with the **highest place value** in a number.

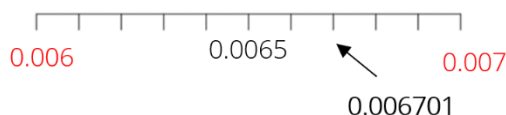
The first significant figure in the number **9105** is **9** and the first significant figure in **0.006801** is **6**.

Rounding to one significant figure

9105 rounded to one significant figure is **9000**.



0.006701 rounded to one significant figure is **0.007**.



When **estimating** a calculation, round all the numbers to **one significant figure first**.

KPOW: Equations and Inequalities

Week 5: Percentages

Equivalent fractions, decimals and percentages

Per**cent**ages are an amount out of **100**.

To convert between decimals, fractions and percentages use a place value chart.

Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten Thousandths
TTh	Th	H	T	O	t	h	th	thh
10,000	1,000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$	$\frac{1}{10,000}$
				0	3			

For example

0.3 is **3 tenths** so $0.3 = \frac{3}{10}$. To convert to a percentage the denominator must be **100**.

$$0.3 = \frac{3}{10} = \frac{30}{100} = 30\%$$

Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten Thousandths
TTh	Th	H	T	O	t	h	th	thh
10,000	1,000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$	$\frac{1}{10,000}$
				0	8	3		

0.83 is **83 hundredths** so $0.83 = \frac{83}{100}$ and

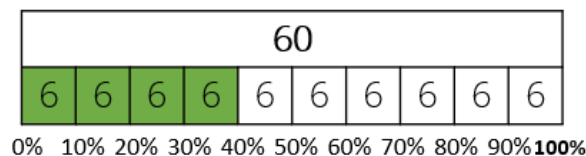
$$0.83 = \frac{83}{100} = 83\%$$

Year 8: Autumn Term 2

Week 6 & 7: Percentages

Percentages of amounts

To find percentages of amounts, use a **bar model**.



For example

Find 40% of 60:

$$10\% \text{ of } 60: 60 \div 10 = 6$$

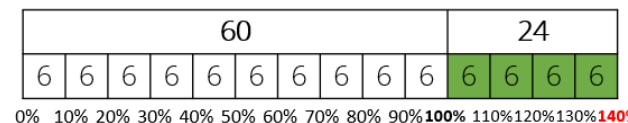
$$40\% \text{ of } 60: 6 \times 4 = 24$$

Percentage increase and decrease.

We can also **increase** or **decrease** quantities by a percentage.

For example

To **increase** 60 by 40% you can either calculate 40% of 60 then add it to the amount:



$$40\% \text{ of } 60 = 24$$

$$\text{Increase } 60 \text{ by } 40\%: 60 + 24 = 84$$

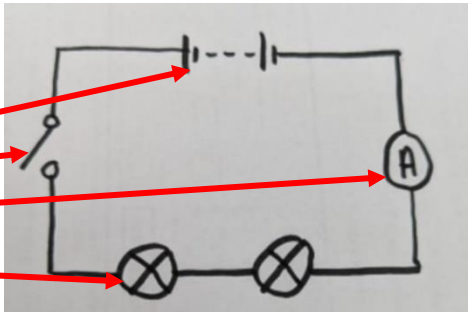
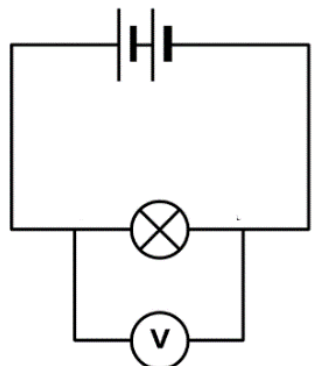
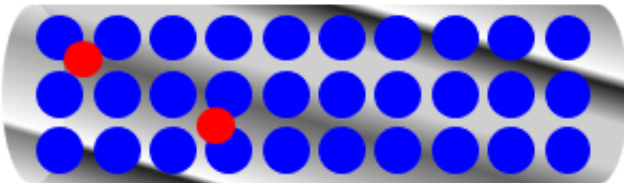
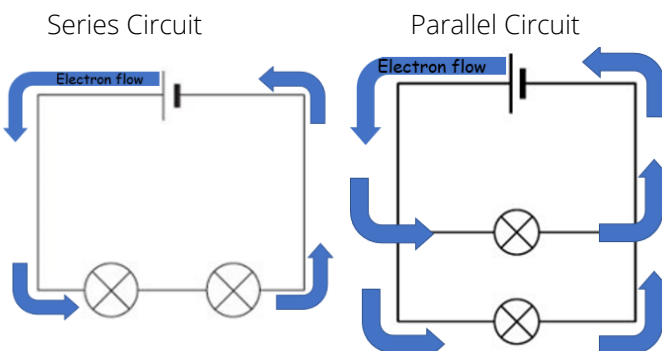
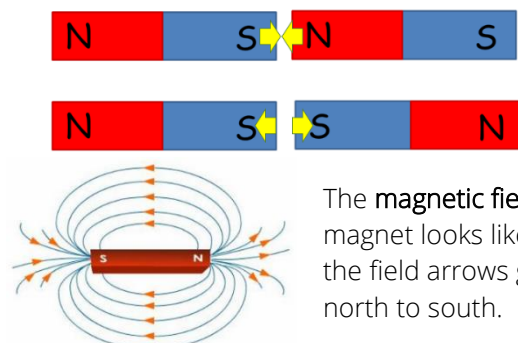
OR you can use a **decimal multiplier**. An increase of **40%** is the same as finding **140%**:

$$140\% = \frac{140}{100} = 1.4$$

$$1.4 \times 60 = 84$$

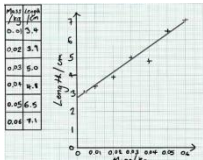
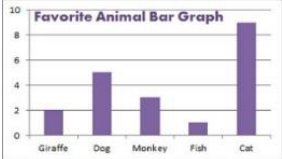
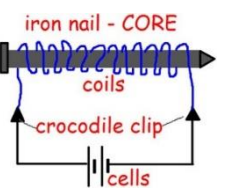
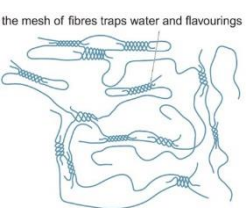




Subject: Physics	KPOW:	Year 8: Autumn Term 2
Week 1: Conductors and insulators	Week 2: Introduction to circuits and current	Week 3: Measuring potential difference
Keyword definitions Conductor: A material that will allow electricity to flow through it. Insulator: A material that slows down the flow of electricity through it.  A plug is made from two main materials, the pins are made of brass which is a metal and is a good conductor of electricity. The case is made of plastic which is a good insulator of electricity. This is so that you don't get electrocuted when you touch it.	Keyword definitions Electrical circuit: A series of wires and electrical components, eg: 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.	Keyword definitions 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 4: Calculating resistance	Week 5: Series and parallel circuits	Week 6 and 7: Magnets and the compass
Keyword definitions 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).	Keyword definitions 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.  Series Circuit Parallel Circuit	Keyword definitions 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: Working Scientifically	KPOW:	Year 8: Autumn Term 2
Week 1 & 2: Measurements and Evidence	Week 3: Graphs and Variables	Week 4: Models
Keyword definitions Accuracy – How close a measurement is to the true value. Precision – How close together measurements are. Reproducible – If someone else can repeat your work and get similar results. Evidence – Scientific data that supports or disproves a hypothesis or theory. Scientists take measurements for three reasons; 1. To make sure our results are as accurate as possible. 2. To make sure our experiments are reproducible. 3. To provide evidence to support our conclusions (findings).	Scientists plot graphs to help us visualise patterns in data and spot anomalies (results that don't fit). The x- axis on a graph is the horizontal axis.  (x is across) The y-axis on a graph is the vertical axis. The independent (changing) variable usually goes on the x axis and the dependent (measured) variable usually goes on the y axis.   Line graphs are used when the data is continuous (numbers). Bar graphs are used when there is categoric data (categories / words).	Keyword definitions Solar system – A group of stars, planets, moons, comets and asteroids. Scale model – A copy of something that is much larger or smaller than the actual thing. If a model has a scale of 1:24 cm, this means that 1cm on the model is equal to 24cm on the actual thing, so to find the scale model length, you would divide the actual length by 24 (the scale length). We can use models in science to represent things like cells and atoms which are very small or to represent things that are too large to study as a whole, such as the solar system. 
Week 5: Reaction time / Electromagnets	Week 6: Gelatine	Week 7: Acids / Pendulums
Key definitions Reaction time – The length of time taken to react to a stimulus (a change or event). Electromagnet – A magnet made by passing an electric current through a coil of wire around a metal core. Investigating reaction time To investigate reaction time, a ruler is dropped by one person and caught by another. The dependent variable is the measurement where the ruler is caught. Investigating electromagnets You can change the strength of the magnet by changing the number of coils of wire and measure the strength by counting the number of paper clips the magnet can pick up. 	Investigating the effect of different fruits on gelatine Variables: Independent – Change the type of fruit. Dependent – Observe if the jelly has set in a specific time. Control – Keep the amounts of gelatine, water and fruit the same. The science: Gelatine contains a protein called collagen which forms a mesh that traps water as it cools, setting the jelly. Fruits contain enzymes (biological substance that speeds up reactions) which break down proteins, stopping the jelly from setting. Heating the fruit first denatures (destroys) the enzymes meaning the jelly can still set. 	Investigating the strength of different types of acid Acids have low pH values (1-6) while alkalis have high pH values (8-14). Acids will lower the pH of alkalis causing them to become neutral (pH7). To investigate the strength of an acid we need to test its ability to neutralise an alkali. Independent variable – Change the type of acid. Dependent variable – Measure the amount of acid needed to neutralise the alkali. Control variables – Keep the volume of alkali used the same. Investigating pendulums A pendulum is a mass hung from a fixed point which can swing freely. To investigate pendulums, you can change the mass, the length of the string and the angle of the swing.

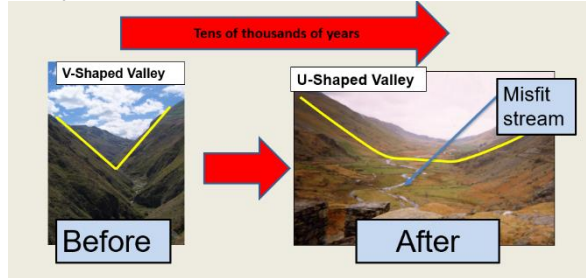




Subject: French	KPOW: Les Vacances Reading	Year 8: Autumn Term 2
Week 1: Key time phrases, verbs & countries	Week 2: Key verbs and types of transport	Week 3: Key verbs/vocab & accommodation
L'année prochaine [next year] Cet été [this summer] À l'avenir [in the future] Dans le futur [in the future] Pendant les grandes vacances [during the big holidays] je vais aller en [I am going to go to] on va aller en [we are going to go to] Allemagne [Germany] Angleterre [England] Espagne [Spain] France [France] Italie [Italy] Turquie [Turkey] Croatie [Croatia] Egypte [Egypt]	je vais aller en vacances [I am going to go on holiday] on va aller en vacances [we are going to go on holiday] en avion [by plane] en bateau [by boat] en car [by coach] en voiture [by car] en train [by train] en ferry [by ferry] en vélo [by bike]	je vais passer... [I am going to spend...] on va passer... [We are going to spend...] une semaine [1 week] deux semaines [2 weeks] là-bas [over there] avec ma famille [with my family] je vais rester dans [I am going to stay in] on va rester dans [We are going to stay in] la maison de ma famille [with family] un camping [a campsite] un hôtel bon marché [a cheap hotel] un hôtel de luxe [a luxury hotel] une caravane [a caravan] un appartement [a flat]
Week 4: Key future tense verbs and adjectives	Week 5: Future/conditional tense & activities	Week 6 & 7: Future/conditional tense & activities
ce sera [it will be] ce ne sera pas [it won't be] qui sera [which will be] ennuyeux [boring] barbant [boring] amusant [fun] génial [great] reposant [relaxing] moins cher [cheaper] moderne [modern] intéressant [interesting] divertissant [entertaining] passionnant [exciting] animé [lively]	Je vais... [I am going...] On va... [We are going...] Je voudrais... / J'aimerais... [I would like] On voudrait... / On aimerait... [We would like] acheter des souvenirs [to buy souvenirs] aller à la piscine [to go the swimming pool] aller à la plage [to go to the beach] aller en boîte [to go clubbing] bronzer [to sunbathe] danser [to dance] faire des courses [to go shopping] faire de la plongée [to go scuba diving] faire du sport [to do sport] faire du tourisme [to go sightseeing] faire du vélo [to go biking]	Je vais... [I am going...] On va... [We are going...] Je voudrais... / J'aimerais... [I would like] On voudrait... / On aimerait... [We would like] jouer avec des amis [to play with some friends] manger et dormir [to eat and sleep] manger de la nourriture délicieuse [to eat delicious food] me/se reposer [to rest] sortir en ville [go out into town] visiter la ville [to visit the town] visiter les monuments [to visit the sights] ce serait [it would be] ce ne serait pas [it would not be] qui serait [which would be]



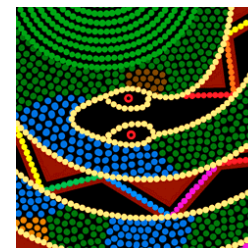


Subject: Geography	KPOW: Global Weather	Year 8: Autumn Term 2																		
Week 1: Tropical Storms – Location & Formation	Week 2: Tropical Storms – Case Study	Week 3: Mitigating Tropical Storms																		
A tropical storm forms in an area of extremely low pressure. This extreme weather is located between the Tropic of Cancer and Capricorn. Hurricanes are formed in the Atlantic Ocean. They track from east to west in the northern hemisphere. Typhoons are formed in the Pacific Ocean, whereas cyclones can be found in the Indian ocean. A tropical storm is formed when the sun warms the ocean and warm air rises rapidly. The rising air, cools and condenses which forms clouds. Rising air is replaced by moist, cool air. Air begins to spiral caused by the spinning movement of the Earth. Violent winds spread outwards and leaves an area of calm in the centre, this is called the eye of the storm.	Hurricane Sandy was a category three hurricane which hit the USA in October 2012. The effects of tropical storms can be categorised into social (people), economic (money) and environmental. <table border="1"> <thead> <tr> <th>Social</th><th>Economic</th><th>Environmental</th></tr> </thead> <tbody> <tr> <td>-223 dead</td><td>-\$65 billion worth of damage</td><td>-Widespread flooding</td></tr> <tr> <td>-Many homeless</td><td>-Businesses damaged</td><td>-Sewers backed up</td></tr> <tr> <td>-Many without food and water</td><td>-Jobs lost</td><td>-Petrol and oil leaks</td></tr> <tr> <td>-Schools closed</td><td></td><td>-Trees blown down</td></tr> <tr> <td></td><td></td><td>-Habitats damaged</td></tr> </tbody> </table>	Social	Economic	Environmental	-223 dead	-\$65 billion worth of damage	-Widespread flooding	-Many homeless	-Businesses damaged	-Sewers backed up	-Many without food and water	-Jobs lost	-Petrol and oil leaks	-Schools closed		-Trees blown down			-Habitats damaged	Mitigation means to reduce the effects of something such as a hurricane. Humans use the three Ps: Prediction, protection, and planning to mitigate the effects of hurricanes. Prediction: Satellites are used to take pictures of hurricanes from space and predict when and where they will happen. Protection: Houses can be built on stilts to protect from floods caused by storm surges. Planning: In the USA, there is National Hurricane Preparedness Week which helps people to prepare an evacuation plan. Wealthier countries can mitigate hurricanes effectively as they have more wealth to pay for prediction, protection, and planning.
Social	Economic	Environmental																		
-223 dead	-\$65 billion worth of damage	-Widespread flooding																		
-Many homeless	-Businesses damaged	-Sewers backed up																		
-Many without food and water	-Jobs lost	-Petrol and oil leaks																		
-Schools closed		-Trees blown down																		
		-Habitats damaged																		
Week 4 & Week 5: Skills lesson and KPOW	Week 6 - New Topic - Glaciation	Week 7: Glacial Processes																		
When a tropical storm is approaching land, we use a variety of maps which enable us to prepare for the event, these often come from satellites that travel around the Earth. The maps help us to predict the storm's path and prepare the cities, towns and villages so people can protect their homes. It is important to know the storm's path, its size and its speed to enable a country's population to plan for its arrival. Week 5 = KPOW	What is an Ice Age? Around 110 000 a new Ice Age began which affected some of the British Isles; this ended 10 000 years ago. An Ice Age is a time when the average temperature of Earth was low, and glaciers spread. A glacier is a large mass of ice often shaped like a river that flows very slowly, under the force of gravity. Glacial ice when there is layer upon layer of falling snow, and the temperature falls below 0°C then the snow will not melt, and the glaciers will grow. It takes 20 to 40 years for the layers to compress and form glacier ice.	Nant Ffrancon valley is in North Wales and is a landscape that has been shaped by glacial processes. The main glacial processes are freeze-thaw weathering, abrasion and plucking. These processes have combined to change the shape of the Nant Ffrancon valley from a V-shaped river valley into a U-shaped glacial trough. In the bottom of the valley flows a misfit stream. 																		





Subject: History		KPOW: Impact of the British in India		Year 8: Autumn Term 2	
Week 1: Empire		Week 2: Westward Exploration		Week 3: impact on indigenous people	
What is an empire? A group of countries, (colonies), ruled over by another country. Why should we study the British Empire? To help us understand the impact the British Empire has had around the world. Why did Britain want an empire? To get valuable raw materials, to take more land and to have more countries to sell goods to. How did Britain get its empire? If Britain won a war against another country they may take over land. Explorers 'found' new places and claimed them and when British companies traded with other countries they often took over.		Renaissance = a time of discovery/exploration. Why go west? New technology made longer journeys possible. Columbus sailed across the Atlantic to find a new route to China. Instead, he 'discovered' the Caribbean. Spanish explorers found gold in South America. British explorers were less successful and stole gold from other ships, acting as pirates. Some sailors, given permission by the King, were called privateers. From piracy to plantations. Over time, groups settled in the Americas and set up plantations to grow crops. At first they used indentured servants – who paid for their passage in work. Later they used enslaved Africans.		Like the first settlers in the British Isles, the first settlers in North America arrived by crossing a land bridge from Asia. Before the British arrived: Native groups used the natural resources available in each region. Those who lived near water fished, and those further in land hunted animals such as deer. Different groups developed their own customs, such as building totem poles. The impact of European settlers: At first relationships were positive, but the British did not treat the native people with respect. Many villages were destroyed. European diseases, like measles and smallpox, also had a devastating impact.	
Week 4: India before the British Incredible India: Rich in natural resources, including gemstones and gold. Since ancient times, science, art and mathematics have all flourished there. Before the arrival of Europeans: India was divided into lots of kingdoms. In the early 1500s the Mughals invaded and took control. They united the many states and India became very wealthy. They Mughals ruled peacefully, embracing local cultures until they lost control in the early 1700s. European Interest: Seeing the conflict as an opportunity, the French, Dutch and British decided to help the Indian Princes. They then demanded land or goods in return for their help.		Week 5: invasion of India and KPOW Countries set up trading stations along the coast. The British ones were run by the East India Company. They traded cheap goods for spices, silk and coffee which they then sold in Britain for profit. The EIC started to take over land and fought against regional rulers. After the Battle of Plassey and the Battle of Buxar the British, led by Robert Clive, expanded further into India and more land came under British rule. During the Bengal Famine of 1770, 10million people died and the British faced many rebellions, usually because of high taxation or land being taken.		Week 6 & Week 7: Australia The indigenous people of Australia are the Aboriginal people. They used natural resources for everything including food and shelter. Their traditions are some of the longest surviving in human history. 1770: James Cook arrived in Australia. He 'claimed' the land for Britain even though there were people already living there. The 'First Fleeters' arrived from Britain in 1788 to set up a new colony in Australia. Convicts were sent to Australia as punishment = transportation. Conflict between the British settlers and Aboriginal people led to massacres of Indigenous Australians.	



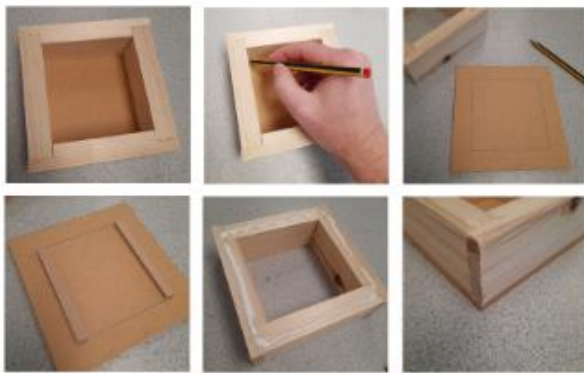


Subject: DT - Food	KPOW: Cupcake practical	Year 8: Autumn Term 2
Week 1 & Week 2	Week 3, 4 & 5	Week 6 & Week 7
Cake Theory – Cake making methods Rubbing in method - Fat is rubbed into the flour using fingertips & additional ingredients are added. - Liquid added to bind together dry ingredients. - Used to make scones, rock buns, crumble topping. Raising agent Chemical- Baking Powder or Self Raising flour. Mechanical - Sieving Rubbing In. Melting method - Fat is melted with the sugars and syrups. - Dry ingredients added. - Liquids bind all ingredients together. - Used to make brownies, flapjack, gingerbread. Raising agent Chemical- Bicarbonate of soda. Creaming method - Fat and sugar are creamed together. - Eggs are slowly added a bit at a time. - Flour is folded in. - Used to make Victoria sponge, cupcakes, Madeira cake. Raising agent Chemical- Baking Powder or Self Raising flour. Mechanical- Creaming/ sieving. Whisking method - Eggs and sugar are whisked until mixture has doubled in volume. - Flour is gently folded in. - Used for swiss roll, gateaux, flan case. Raising agent Mechanical- Whisking, sieving.	Cupcake ingredients 175g (6 oz) softened butter or margarine 175g (6 oz) caster sugar 2 teaspoons vanilla extract 3 eggs 175g (6 oz) self-raising flour (if chocolate flavoured 140g SR flour 35g cocoa) Buttercream- (200g butter + 400g icing sugar) Decorations e.g - Chocolate/ nutella/ biscoff - Sprinkles/choc decorations - Bun cases x12 Simple method for making cupcakes 1. Weigh out the butter and sugar and place in into a bowl and whizz up until light and fluffy – use a spoon or electric whisk. 2. Pour in the vanilla essence and add the eggs - whizz again to make a smooth batter. 3. Add the flour and/or cocoa and fold in until it is smooth. Stop once in the middle of this and scrape the sides down using a spatula. The longer mixing time enables air to get into the mixture which will make it lighter. 4. Place cases into tin and pour evenly into the 12 cupcake cases, 60% full. 5. Bake for about 14 minutes. Keep an eye on them. They will be perfect when they bounce back to the touch and the top still looks slightly sticky, leave to cool, decorate.	Special diets/ timelines Food allergy- eating a particular food would trigger an immune reaction. Food intolerance- difficulty digesting a particular food. Coeliac disease A condition where your immune system attacks your own tissues when you eat gluten. This damages your gut (small intestine) so you are unable to take in nutrient. Lactose Intolerance A digestive disorder caused by the inability to digest lactose, the main carbohydrate in dairy products. Vegetarians- Choose not to eat meat or fish. Vegans- Chosen not to eat meat or use anything that comes from an animal.  Baby- milk is a key necessity full of vitamins and protein, first solid foods should be fruit and veg then slowly cereals, dairy and other foods introduced. Toddler- some milk still, starchy foods like potatoes, pasta, rice as well as some protein lean meat and fruit and veg- still soft in texture nothing too hard or crunchy. Teenager- growth and development is rapid during this part of life and a real mix and balance of nutrients is required with low fat diet being very important. Adult- similar to a teenager unless woman is pregnant or breast feeding where they have to consider certain foods and how they could affect the baby. Elderly- energy requirement is not as great but high protein and vitamins are essential as bone disease can affect this age group. Spellings Test: YEAST CREAMING WEIGHING STARCH CARBOHYDRATE PROTEIN PROCESS METHOD HYGIENE APPERTISING GELATINISATION APPEARANCE INSTRUCTIONS JUSTIFICATION EVALUATION



Subject: DT – Product Design

Week 1 & Week 2: Drawing and Rendering



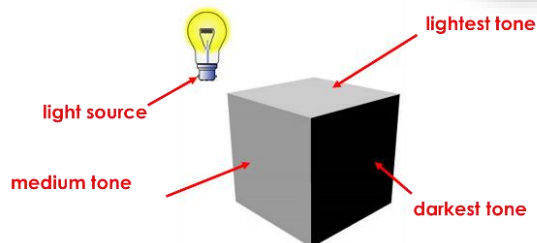
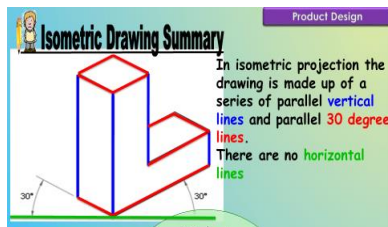
Theory

Oblique drawings only show one side of the shape in any real detail.

Isometric is more realistic 3D image.

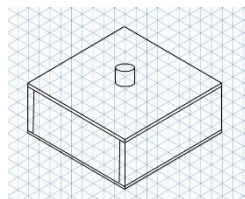
Rendering – Add colour to a shape or an object to make it look 3D.

3 tone rendering – Uses three varying tones of colour.

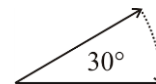


KPOW: Making

Week 3 & Week 4: Isometric Drawing



Isometric drawings are produced to a clear and detailed drawn version of an idea or final design. The horizontal lines are drawn at 30 degree angles.



Key words:

Flush – Materials all even and flat when put together.

Band facer – A machine which sands wood along a long belt aka a belt sander).

Finish – The way the manufacture of product is completed (complete to a high standard).

Isometric paper – graph paper with angled boxes to help draw in 3D.

Theory

How paper is made – The manufacturing process used to convert trees (source material) into paper.

Sustainability - Avoidance of depletion (using them up) of natural resources.

6 R's

Reduce – Reduce materials used.

Rethink – Design to think about environment.

Recycle – Reprocess material to make something else.

Reuse – Use a product to make something else.

Refuse – Do not buy it if you do not need it.

Repair – Fix it instead of replacing.

Year 8: Autumn Term 2

Week 5, 6 & 7: CAD & CAM



Welding strategy - using a range of shapes to form a new shape. This can be done free hand or using templates.

Modelling is an integral part of the design process and

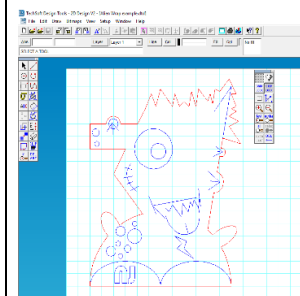
helps the designer to see faults before manufacturing.

Key words

Modelling – Test how the product looks before making it out of the chosen materials.

Presentation – Thinking about layout, colour, and annotation.

Fine liners – Thin nibbed pens to add detail when designing.



In industry CAD and CAM are used on large scale manufacturing. CAD is what we produce on a computer and CAM is the manufacturing process which is informed by the computer.

Keywords

Techsoft 2D Design – CAD software that is used to create designs which will be cut using a laser cutter.

CAD – Computer aided design.

CAM – Computer aided manufacture.

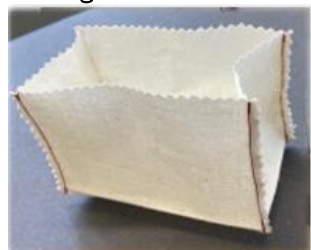


Subject: DT - Textiles

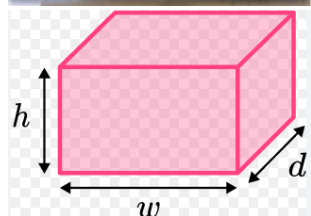
Week 2 & Week 3

Mixed Materials Storage Product

Making fabric box for inside:



Use **Pinking Shears** (cut a zig-zag edge to reduce fraying which is when the threads unravel).



3D = 3 dimensional, meaning has three dimensions, depth, width, and height.

Joining the box to the sides:



Functional – this means being practical and useful rather than just attractive.

Theory – Mind Mapping:



A mind map is a diagram where information is shown visually. They help you:

- Organise information
- Prepare for tests

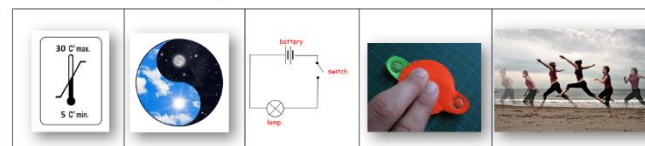
KPOW: Storage Product

Week 4 & Week 5

Key Theory Topics:

SMART materials are materials that Respond Automatically to a Changing Environment (**RACE = acronym**)

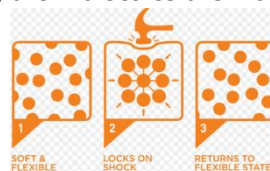
Examples of **change** are:



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



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



Modern Materials:

Kevlar – very strong, used for bullet proof vests.

Rhovyl - long lasting antibacterial properties, used for bedding, underwear etc.

Nomex – Heat resistant, fire fighters and racing drivers clothing.

Carbon Fibre – used to reinforce other materials, lightweight, flameproof, used for helmets and racing cars.

Super Hydrophobic – repels water, used on electronic circuits and footwear etc.

Year 8: Autumn Term 2

Week 6 & Week 7

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

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

Geotextiles: Materials used in civil engineering (e.g., road, bridge, canal, and dam building). Function is to:

- **REINFORCE** (strengthen & support)
- **FILTER** (allow water through, but not unwanted materials)
- **SEPARATE** (different layers separated)

E-Textiles: Fabrics which incorporate (include) electronics (i.e., conductive thread, printed on circuit board or micro wires woven into material). They need a POWER SOURCE to active them (i.e., a battery).

Function of E-Textiles is they can SENSE, ACUTATE, COMMUNICATE AND STORE information (**SACS = acronym**).

Key areas where E-textiles are being developed are:

Medicine – gowns and vests that can read vitals such as blood pressure, temperature etc.

Sports Performance – Rugby box and football vest that read vitals as player is performing.

Military – Uniforms with the capability to record information and communicate with others.

Fashion & Novelty – light up garments for the catwalk and other novelties.





Subject: Core PE

Week 1 & Week 2: Warm Up

Definition- This happens before you take part in sport. Without a warmup, a performer is more likely to become injured.

Example- Before a rugby match, the team will warm up to create heat in their muscles to increase elasticity and prevent muscles from becoming strained.

Prevention of injury- If you do not warm up before exercise, muscles will more likely become strained due to not enough blood flow to the working muscles.



KPOW: Key Words

Week 3 & Week 4: Playing to the rules

Definition- If players do not stick to the rules of the sport, they increase the risk of injury to others.

Example- If a boxer does not follow the rules and hits their opponent in the back of the head, they could become concussed.

Prevention of injury- By playing to the rules, performers are less likely to become injured. This allows sport to become safer.



Year 8: Autumn Term 2

Week 5, 6 & 7: Sprain

Definition- To wrench or twist the ligaments of a joint violently, which causes pain and swelling, but not dislocation.

Example- A footballer may sprain their ankle when running on uneven surfaces.

Prevention of injury- Ensuring that you do not overstretch when playing sport will help to prevent a sprain.





Subject: Computing & Digital Media	KPOW: Hardware	Year 8: Autumn Term 2																			
Week 1 & Week 2	Week 3 & Week 4	Week 5, 6 & 7:																			
Keywords: Respond: To say or do something as a reaction to something that has been said or done. Malware: Harmful software created to cause damage or gain illegal access to computer systems.	Keywords: Vector Graphics: A form of computer graphics that are created using mathematical shapes and lines. Page orientation: is the way in which a rectangular page is oriented for normal viewing. The two most common are portrait and landscape.	Keywords: Computer Hardware: any physical parts or components that make up a computer system.																			
Types of network: LAN – local area network (such as home/college). WAN – wide area network (such as internet) Devices can be connected together in a network via wired (Ethernet cables) or wireless networks (Wi-Fi). We need other network hardware to connect them together such as: Switch: used to connect devices together. Router: used to connect different networks together (such as connect home (LAN) to the internet (WAN)). Wireless access point (WAP): used to connect wireless devices to a network. Networks are vulnerable to attacks by hackers, so organisations often have set rules to reduce the threat, these include: • Backing up data regularly • Strong passwords for everyone • Different levels of access • Up to date anti-malware and firewall	Applications for creating & editing graphics. Adobe Illustrator – allows to create vector graphics using a wide range of tools. Adobe Photoshop – used for editing images such as photos or create new images by combining several other images. Vector Images:  Made using a mathematical formula using shapes, lines, strokes and fills. They have scalability which means that increasing the image size doesn't affect the quality of the image. Logo's, illustrations and cartoons are made using vector images.	<table><tr><th>Peripheral</th><th>Use</th></tr><tr><td>Keyboard</td><td>Input device</td></tr><tr><td>Mouse</td><td>Input device</td></tr><tr><td>Microphone</td><td>Input device</td></tr><tr><td>Camera</td><td>Input device</td></tr><tr><td>Printer</td><td>Output device</td></tr><tr><td>Headphones</td><td>Output device</td></tr><tr><td>Speakers</td><td>Output device</td></tr><tr><td>Interactive screen</td><td>Input & Output device</td></tr></table>	Peripheral	Use	Keyboard	Input device	Mouse	Input device	Microphone	Input device	Camera	Input device	Printer	Output device	Headphones	Output device	Speakers	Output device	Interactive screen	Input & Output device	Computer storage As well as inputting & outputting data, the computer has to process and store data. Secondary storage is used for long term storage of files and data. There are 3 types of secondary storage: • Magnetic Eg: Hard disk drive (HDD) • Optical eg: CD, DVD or Blu-ray • Solid state eg: Memory stick or SD card
Peripheral	Use																				
Keyboard	Input device																				
Mouse	Input device																				
Microphone	Input device																				
Camera	Input device																				
Printer	Output device																				
Headphones	Output device																				
Speakers	Output device																				
Interactive screen	Input & Output device																				

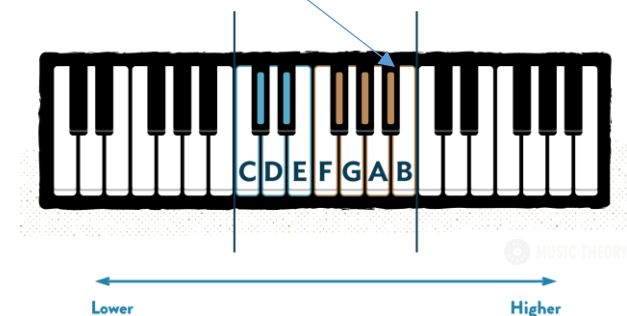


Subject: Music

Week 1 & Week 2: Notes on a keyboard

Notes on a keyboard:

The notes on a keyboard follow a pattern of two black notes then three black notes. Before every 2 black notes is the note 'C'. The notes to follow are D E F G A B and then back to C. In blues music, the B is flattened and is the black key next to B.



Walking Bass

In blues music, the walking bass part is in most blues songs, often played on a double bass or bass guitar. It sounds like you are walking up and down the instrument.



John Lee Hooker

was an American blues singer, songwriter, and guitarist.

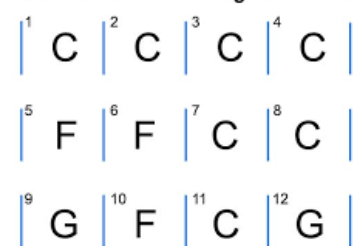
KPOW: Blues

Week 3 & Week 4: Developing Keyboard Skills

Chords

A chord is 2 or more notes played at the same time. In Blues Music there are 3 chords: C (CEG) F (FAC) G (GBD)

12 Bar Blues Chord Progression in C



Blues chord sequence

This is the pattern of the blues chords when played alongside the walking bass.

C Major Scale - Treble Clef Ascending



Octave:

A series of eight notes occupying the interval between (and including) two notes. Above you can see all the notes in the octave between Middle C and High C in the C Major Scale.

Year 8: Autumn Term 2

Week 5, Week 6 & Week 7: Theory & Facts

Note Values

Music Theory is the written aspect of music which gives us information about how long musical notes should be held on for.

Notes	Name		Value
	Semibreve	Whole note	4 beats
	Minim	Half note	2 beats
	Crotchet	Quarter note	1 beat
	Quaver	Eighth note	1/2 beat
	Semi-quaver	Sixteenth note	1/4 beat
	2 Quavers	2 Eighth notes	1 beat
	4 Semi-quavers	4 Sixteenth notes	1 beat

Where does Blues come from

The blues music originated on Southern plantations in the 19th Century. Its inventors were slaves, ex-slaves and the descendants of slaves - African-American sharecroppers who sang as they toiled in the cotton and vegetable fields.

Instruments

The main Instruments that can be heard in a piece of blues music is saxophone from the woodwind family. It has a very smooth jazz sound to it.

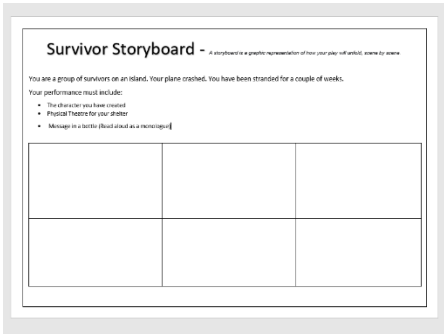




Subject: Art	KPOW: China inspired Final Piece	Year 8: Autumn Term 2
Week 1 & Week 2:	Week 3 & Week 4:	Week 5 & Week 6 & Week 7:
Keywords and definitions Pattern - a repeated decorative design. Repeat - the recurrence of an action or event. Space (negative space) - the empty space around and between the subject(s) of an image. Design - a plan or drawing produced to show the look and function or workings of a building, garment, painting or other object before it is made.	Outcome development A mirror repeat pattern involves the use of symmetry. The design in this kind of repeat is flipped right, then flipped down and then flipped left to complete the full design.	Mirror repeat Colour application Colour blending - skills to blend different colours together such as complimentary groups of colour from colour theory. Dark to light tones blended together create 3D qualities. Complimentary Colours – colour such as red/green, Blue/orange and yellow/purple. Symmetrical - made up of exactly similar parts facing each other.





Subject: Drama	KPOW: Devised Performance	Year 8: Autumn Term 2
Week 1 & Week 2	Week 3 & Week 4 & Week 5	Week 6 & Week 7
Devising theatre <i>Continuing with the devising process. Devising – to plan or invent through careful thought.</i> Tableaux - A Motionless image that is representing a scene from a story. Conscience alley: a technique to present two sides of and argument/opinion at the same time, selecting then the most compelling argument.  Storyboard: A graphic representation of how your story will unfold, scene by scene. 	Exploration of ideas <i>If you explore an idea or suggestion, you think about it or comment on it in detail, in order to assess it carefully.</i> Thought tracking – When a character steps out of a scene to address the audience about how they are feeling.  Choral speaking – a group of performers who speak in unison. They orally interpret, memorise, and perform a prose using the spoken, not singing voice. 	Perform and reflect - KPOW KPOW – Key piece of work Performance – An act of presenting a play, concert, or other form of entertainment.  Peer Feedback – Enables the performer to improve their work, based on feedback of strength and weaknesses.  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.





Subject: Learning 4 Life

Week 1 & Week 2: Benoit

Please learn the information below:



Pierre-Marie Benoit

- Born in France in 1895
- A priest (Roman Catholic)
- Saved more than 4,000 Jews.

- He moved back to France from Rome when WWII started.
- In France, he witnessed first hand how Jews were being mistreated.



- He vowed to do all he could to protect Jews.
- He printed thousands of baptism certificates and fake passports.
- He then helped to smuggle Jews to Switzerland or Spain.

- Despite the Nazi's invading France he continued to help, even when he became a refugee himself.
- A refugee is a person who is forced to flee his/her own country due to war or conflict.



When the war ended in 1945, his actions were described as 'heroic' and he was named as 'A Righteous Among the Nations' for his bravery.

Week 3 & Week 4: Judaism

Please learn these facts about the religion of Judaism:



Synagogue

Jewish place of worship.
It is the centre for Jewish life.



Torah

Jewish holy book (but it's a scroll).
Written in Hebrew.
Contains the 613 laws Jews are expected to follow.



Yad

A pointer. Used to follow the words when reading the Torah.



Ark

Where the Torah is kept.
Always faces towards Jerusalem.



Tefillin

Prayer boxes.
One is worn on the head, the other on the left arm.



Tallit

Jewish prayer shawl.
It many fringes represent the 613 laws Jews are expected to follow.



Kippah

A skull cap.
Also known as a yarmulka.



Shabbat

The Jewish day of rest.
Friday sunset until Saturday sunset
Considered the most important celebration.

Year 8: Autumn Term 2

Week 5 & Week 6 & Week 7: Hanukah

Please learn these key facts about Hanukah;
Its history...



Hanukah is the Jewish festival of lights.

It lasts for 8 days and is celebrated every winter.



It is a story about fighting for beliefs nearly 2,000 years ago.

The Greek King (Antiochus) expected Jews to worship his gods, they refused.

There was a long battle between the Jews and Antiochus.



When the Jews were victorious, they claimed back their Temple.

There was only enough oil for one day for the 'everlasting light'.



Somehow, the oil lasted for 8 days, it was a miracle!

Jews took this to mean that God was pleased that they had stood up for their beliefs.

How it is celebrated...



Jews eat foods such as doughnuts cooked with oil (to remember the miracle).



Jews exchange gifts.



Games are played, e.g., Dreidel.





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 every **Monday** and must be submitted to **Satchel: One** on **Friday**

Remember to date each piece of work and state the week you are submitting from. Please provide a clear image of your Home Learning and offer one submission per subject.

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