



Minsthorpe Community College

Knowledge Organiser

Year 7 – Autumn Term 1

Name:

P&A group:

Knowledge Assessment: Thursday 26th October 2023 – Period 1

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.





English		KPOW: How do writers construct narratives?	Year 7: Autumn Term 1
Week 2: Gothic Conventions		Week 3: Woman in Black and Foreshadowing	Week 4: Pathetic Fallacy and Foreboding
<p>Key word definitions</p> <p>Narrative: a spoken or written account of connected events; a story.</p> <p>Genre: the type of text or the family of texts it belongs to.</p> <p>Convention: i) a way of behaving considered to be correct or polite in society ii) a traditional style or tradition associated with a text type.</p> <p>Key learning points</p> <p>The main gothic conventions are:</p> <ul style="list-style-type: none"> • secluded setting • mystery and suspense • supernatural • omens/ visions • women in distress • overwrought emotion • imagery associated with horror. 		<p>Key word definitions</p> <p>Stigma: a mark of disgrace associated with a particular circumstance, quality or person.</p> <p>Patriarchal: A system of society in which men typically hold all of the power and women are excluded from it.</p> <p>Foreshadowing: is a literary device in which a writer gives an advance hint of what is to come later in the story.</p> <p>Key learning points: Edwardian Context:</p> <ul style="list-style-type: none"> • Highly patriarchal society – women denied rights and the vote. • Pregnancy out of wedlock viewed as sinful and shameful. • Rigid class divides. <p>Key Skills:</p> <ul style="list-style-type: none"> • PIN: 'Pin down' your quotation – where does it come from / what has happened before it is said / why says it etc. • QU: Always use quotations or evidence from the text to support your ideas. You should always include "..." quotation marks. • Ex: Give reasons for your ideas. Think about using phrases like "because" and "as" to help you. • T: Name specific methods with terminology. 	<p>Key word definitions</p> <p>Allusion: an expression designed to call something to mind without mentioning it explicitly; an indirect or passing reference e.g. to the Bible or mythology.</p> <p>Ominous: (adjective) giving the worrying impression that something bad is going to happen.</p> <p>Pathetic Fallacy: The weather and season can be described with human emotions to reflect the mood of a character or create a tone.</p> <p>Foreboding: a feeling that something bad will happen- fearful apprehension.</p> <p>Key learning points: Cultural Awareness:</p> <ul style="list-style-type: none"> • <i>Inferno</i> (Italian for "Hell") is the first part of Italian writer Dante Alighieri's 14th-century epic poem Divine Comedy. In the poem, Hell is depicted as nine concentric circles of torment located within the Earth. • <i>Sir Bedivere-From Arthurian legend-</i> a strong and trusted warrior. On his deathbed, King Arthur handed over Excalibur to him, his most trusted and strongest warrior, to throw into the lake. Sir Bedivere was the only one left standing. <p>Key Skills:</p> <ul style="list-style-type: none"> • Z: Zoom into language- important words, phrases or devices.
Week 5: Contrast and Language Choices		Week 6: Practice Assessment	Weeks 7 and 8: Reading Assessment Preparation
<p>Key word definitions</p> <p>Superiority: (noun) the state or fact of being better, more important, or higher in rank than others.</p> <p>Contrast: (noun) the state of being strikingly different from something else in juxtaposition of close association.</p> <p>Spectre: (noun) i) a ghost ii) something widely feared as a possible unpleasant or dangerous occurrence. (e.g. a threat, a menace, a vision).</p> <p>Key Learning Points:</p> <p>Word Class: Adjective-can be used before a noun, to make the noun's meaning more specific.</p> <p>Verbs: are sometimes called 'doing words' because many verbs name an action that someone does. Many verbs name states or feelings rather than actions.</p> <p>Similes: a figure of speech involving the comparison of one thing with another thing of a different kind, used to make a description more emphatic or vivid (e.g. as brave as a lion).</p> <p>Cultural Awareness:</p> <p>allusions to "the raven" in literature, because of its black plumage, croaking call, and diet of carrion, the raven is often associated with loss and ill omen.</p> <p>Edwardian Context: those in the cosmopolitan regions such as London, often looked down on people from the country, believing them to be less sophisticated.</p>		<p>Key word definitions</p> <p>Reverie (noun): a state of being pleasantly lost in one's thoughts; a daydream.</p> <p>Malevolence: (noun) the state of having or showing a wish for evil to others.</p> <p>Paralysed: (adj) part or wholly incapable of movement.</p> <p>Key Learning Points:</p> <p>Cultural Allusion: Miss Havisham is a character in the Charles Dickens novel Great Expectations (1861). She is a wealthy spinster, once jilted at the altar, who insists on wearing her wedding dress for the rest of her life.</p> <p>Nouns: are sometimes called 'naming words' because they name people, places and 'things.'</p> <p>Abstract noun: a noun denoting an idea, quality, or state rather than a concrete object, e.g. truth, danger, happiness.</p> <p>Adverb: They can modify a verb, an adjective, another adverb or even a whole clause.</p> <p>Key Skill: CF - Clearly focus on answering the question with an idea.</p>	<p>Key word definitions:</p> <p>Impenetrable- (adjective): impossible to pass through or enter/ Impossible to understand.</p> <p>Trauma- (noun) a deeply distressing or disturbing experience. In medicine (physical injury).</p> <p>Key Learning Points:</p> <ul style="list-style-type: none"> • Review and consolidation of all writer's methods used so far. • Revision of key skills in preparation for Reading Assessment.





Maths

Week 2: Place Value

Key representations

Thousands	Hundreds	Tens	Ones
4	7	3	2

This number represents the number four thousand, seven hundred and thirty-two.
In digits this is 4 732.

Decimals

This decimal place value chart is representing the number two point eight tenths and 3 thousandths.

Tens	Ones	Tenths	Hundredths	Thousandths
T	O	t	h	th
10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$
2	8	0	0	3

Multiplying and dividing by 10 and 100

Use a place value table to multiply and divide by multiples of 10. When multiplying or dividing by ten the digits will move one place and when multiplying or dividing by 100 the digits will move two places.

For example, $50.6 \times 10 = 506$

100s	10s	1s	Tenths
	5	0	6
5	0	6	

$470 \div 100 = 4.7$

100s	10s	1s	Tenths	Hundredths	Thousandths
4	7	0	8		
		4	7	0	8

KPOW: Number system

Week 3: Properties of arithmetic

Fact families

Here is a fact family, using the bar model for $7 \times 12 = 84$

84						
12	12	12	12	12	12	12

$$12 \times 7 = 84$$

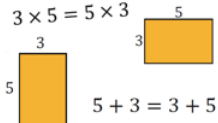
$$84 \div 12 = 7$$

$$7 \times 12 = 84$$

$$84 \div 7 = 12$$

Commutativity

Commutativity is where a different order of the calculation gives the same answer.

Examples	Non examples
$3 \times 5 = 5 \times 3$  $5 + 3 = 3 + 5$	$15 \div 3 \neq 3 \div 15$ $5 - 3 \neq 3 - 5$

Associativity

When adding and multiplying numbers you can change the grouping of the numbers in the problem and it will have no effect on the answer. For example:

$$36 \times 5 = 180$$

$$4 \times 9 \times 5 = 180$$

Distributivity

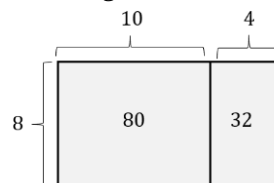
When multiplying an addition by a number it will give the same result as multiplying each number individually then adding the products together.

$$8 \times 14 = 8 \times (10 + 4)$$

$$= 8 \times 10 + 8 \times 4$$

$$= 80 + 32$$

$$= 112$$

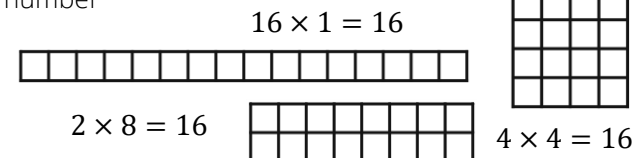


Year 7: Autumn Term 1

Week 4: Factors and multiples

Factors

Factors are numbers we can multiply to get the target number



There are 5 factors of 16. They are: 1, 16, 2, 8 and 4.
There are 4 factors of 10. They are: 1, 10, 2 and 5.

These are factor pairs

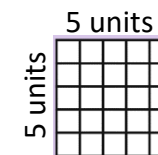
Prime numbers

Prime numbers have exactly 2 factors. The first ten prime numbers are:
2, 3, 5, 7, 11, 13, 17, 19, 23, 29, ...

1 is not prime because it has only one factor

Square numbers

A square number is the result of multiplying a number by itself.



$$5^2 = 5 \times 5 = 25$$

The first ten square numbers are:
1, 4, 9, 16, 25, 36, 49, 81, 100, ...





Week 5: Factors and Multiples

Common factors

The factors of 15 are: 1, 15, 3 and 5.

The factors of 40 are: 1, 40, 2, 20, 4, 10, 5 and 8.

The common factors of 15 and 40 are the numbers that are in both lists. They are: 1 and 5.

The **highest common factor** (HCF) of 15 and 40 is 5.

Multiples

Multiples are lots of a number.

For example, the first five multiples of 3 are:

3, 6, 9, 12, 15, ...

Common multiples

The first five multiples of 3 are:

3, 6, 9, 12, 15, ...

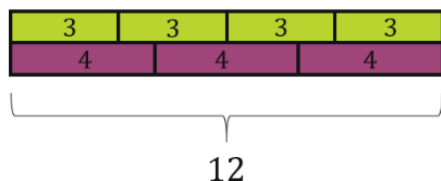
The first five multiples of 4 are:

4, 8, 12, 16, 20, ...

The common multiples will appear in both lists.

For example, the common multiples of 4 and 3 shown here is 12.

The **lowest common multiple** (LCM) of 3 and 4 is 12.



Week 6: Formal Methods

When using a formal method always use a **column method** for addition, subtraction and multiplication.

Always start from the **right**

Addition

$$46 + 76 = 122$$

100s	10s	1s
	4	6
+	7	6
		2

1

100s	10s	1s
	4	6
+	7	6
1	2	2

1

$$86 - 59 = 27$$

100s	10s	1s
	7	8
	5	9
	2	7

$$6 + 6 = 12$$

The ten goes in the ten's column.

$$4 + 7 = 11$$

Remember to add the extra ten.

Subtraction

$$6 - 9$$

requires an **exchange** with the tens column to become $16 - 9 = 7$

Multiplication

$$316 \times 25 = 7900$$

$$(136 \times 5)$$

$$(136 \times 20)$$

$$\begin{array}{r} 316 \\ \times 25 \\ \hline 1580 \\ + 6320 \\ \hline 7900 \end{array}$$

Weeks 7 and 8: Order of Operations

Division

To divide use the **bus stop method**.

$$365 \div 5 = 93$$

The number on top is how many 5s go into the 4.

$$\begin{array}{r} 0 \\ 5 \overline{) 465} \end{array}$$

4 is less than 5 so 4 is the **remainder**. It carries to the ten's column.

$$\begin{array}{r} 09 \\ 5 \overline{) 465} \end{array}$$

The next number is how many 5s go into 46 with 1 as a remainder. Which leaves 15 into 5 goes 3 times.

$$\begin{array}{r} 093 \\ 5 \overline{) 465} \end{array}$$

Order of operations

The diagram tells us the order operations must be completed in. Multiplication and division have the same priority, so these can be completed in any order. Addition and subtraction also have the same priority.

B	Brackets
I	Indices
D M	Division and multiplication
A S	Addition and subtraction

Key examples

$$3 + 5 \times 8 =$$

$$3 + 40 = 43$$

$$(3 + 5) \times 8 =$$

$$8 \times 8 = 64$$

$$(2 \times 3) - (5 \times 8) =$$

$$6 - 40 = -36$$

$$5 + 6^2 \div 9 =$$

$$5 + 36 \div 9 =$$

$$5 + 4 = 9$$





Science: Biology

Week 2: Animal & Plant Cells

Keyword definitions

All cells contain these organelles;

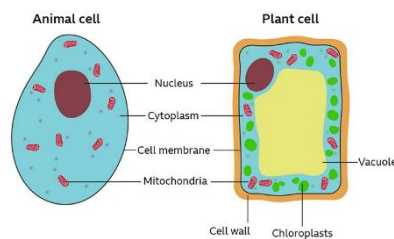
Cytoplasm: It fills the cell and most chemical reactions take place here.

Cell membrane: Controls movement of substances in and out of the cell.

Nucleus: Contains the DNA and controls the cell.

Ribosomes: Synthesise (make) proteins.

Mitochondria: Release energy.



Plant cells also contain a vacuole and cell wall for structure and chloroplasts so that they can carry out photosynthesis.

KPOW: Cells, Tissues and Organs

Week 3: Specialised Cells

Keyword definitions

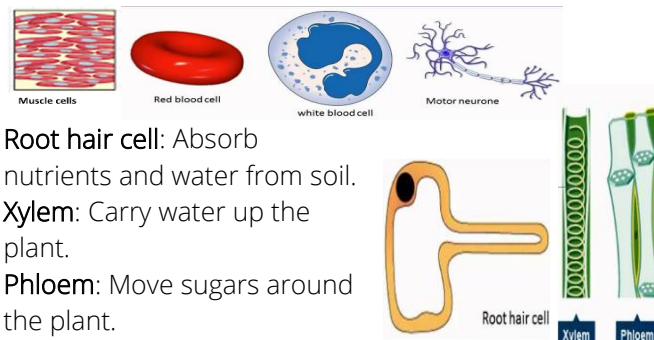
Specialised cells – Cells that have special features to make them good at a particular function (job).

Muscle cells: Contract to cause movement.

Red blood cell: Contain haemoglobin to carry oxygen.

White blood cell: Destroy harmful microbes.

Neurones: (nerve cells) Carry electrical impulses.



Root hair cell: Absorb nutrients and water from soil.

Xylem: Carry water up the plant.

Phloem: Move sugars around the plant.

Year 7: Autumn Term 1

Week 4: The Digestive System

Key word definitions

Cell: The basic subunit (building block) of living things.

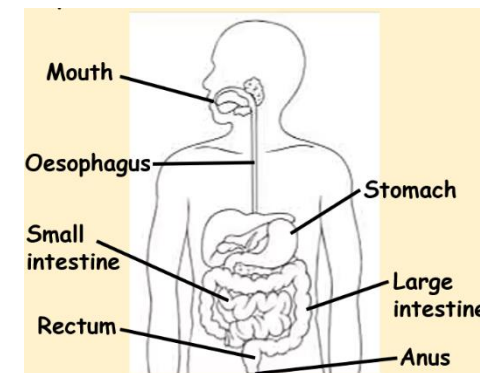
Tissue: Similar cells grouped together.

Organ: Similar tissues grouped together.

Organ system: Different organs that work together and have a shared function.

The Digestive system

contains all the organs that allow you to break down and absorb nutrients from food.



Week 5: Food Tests

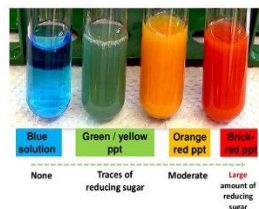
Keyword definitions

Food tests – Chemical tests that allow us to identify certain nutrients in foods.

Nutrient	Test	Positive result
Starch	Iodine	Turns black
Protein	Biuret reagent	Turns lilac.
Sugar	Benedicts reagent	Turns red,

If the **positive result** is seen when these reagents are added to foods, this tells us that particular nutrient is present in the food.

Benedicts reagent can turn different colours depending on the **amount** of sugar present.



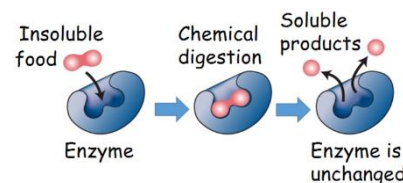
Week 6: Enzymes & Healthy Diet

Keyword definitions

Enzymes – Proteins that speed up chemical reactions in our body.

The digestive system uses enzymes to help break down our food. Enzymes work using the lock and key mechanism.

Each enzyme only fits one type of nutrient.



Enzyme	Breaks down...	...into...
Amylase	Starch	Sugars
Protease	Proteins	Amino acids
Lipase	Fats	Glycerol and fatty acids.

Weeks 7 and 8: Diseases

We need carbohydrates, fats, proteins, vitamins, minerals, fibre and water in our diet to be healthy.

Deficiency diseases are caused by a lack of certain nutrients in our diet, usually vitamins and minerals.

Scurvy is caused by a lack of vitamin C.

Rickets is caused by a lack of vitamin D.

Anaemia is caused by a lack of iron.

A **non-communicable disease** is one that cannot be passed on from person to person.

Deficiency diseases are examples of these along with diabetes, cancer, heart disease and cystic fibrosis.

A **risk factor** is something that makes you more likely to suffer from a non-communicable disease e.g. obesity (being severely overweight) is a risk factor for heart disease and diabetes.





Science: Chemistry

Week 2: Solids, Liquids and Gases

Key word definitions:

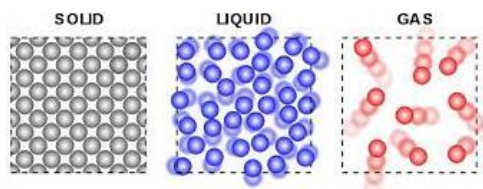
Solids: Particles are close together and vibrate about a fixed position.

Liquids: Particles are close together and move at random.

Gases: Particles are far apart and move at random.

Key learning points:

- All matter, in fact everything is made of particles.
- Particles behave differently in solids, liquids and gases.
- The particle model explains the differences between solids, liquids and gases.



KPOW: Matter and Substances

Week 3: Changes of State

Key word definitions:

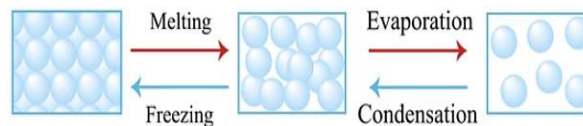
Freezing: A liquid turning into a solid.

Melting: A solid turning into a liquid.

Evaporating: A liquid turning into a gas.

Key learning points:

- Solids, liquids and gases change state when they are heated or cooled.
- Processes such as evaporation and boiling change the state of substances.
- A particle model can be used to show how solids, liquids and gases change state.



Year 7: Autumn Term 1

Week 4: Gas Pressure

Key word definitions:

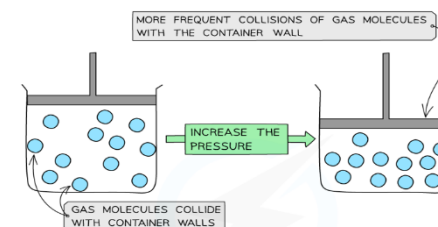
Volume: The amount of space something takes up. Measured in cm^3 .

Compression: The reduction of the volume causes an increase in pressure.

Diffusion: Particles moving from a high concentration to a low concentration.

Key learning points:

- Gas pressure is increased when the temperature increases or the volume of the container decreases.



Week 5: Solutions

Key word definitions

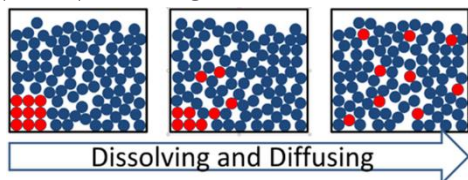
Solute: A substance that dissolves in a liquid to form a solution.

Solvent: A liquid in which other substances dissolve.

Solution: A mixture formed when a solute dissolves in a solvent.

Key learning points

- A solution is made when a solute dissolves into a solvent.
- If a substance can dissolve into a solvent, it is soluble. If it cannot dissolve, it is described as insoluble.
- Heating, stirring and using fine powders are all ways to speed up dissolving.



Week 6: Pure and Impure Substances

Key word definitions

Pure: A substance is pure if no other substances are mixed with it.

Mixture: A lot of different chemicals jumbled up together but not chemically joined.

Key learning points

- Most materials that we use are mixtures, and just a few are pure elements or pure compounds.
- In chemistry, a pure substance is a single substance made of only one type of particle.
- Impurities change the temperature at which a substance melts and boils.



Weeks 7 and 8: Separating Mixtures

Key word definitions

Dissolving: The process of a solid mixing evenly into a liquid forming a solution.

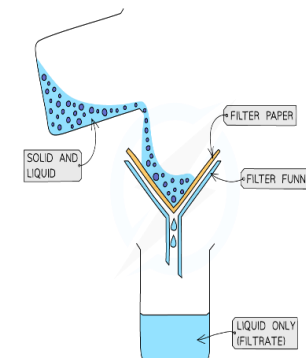
Filtering: Separating things that have not dissolved from a liquid.

Evaporating: Removing a liquid by heating.

Key learning points:


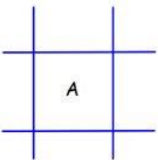
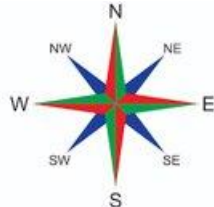
Substances can be separated using different methods that include:

- Dissolving
- Filtration
- Evaporation
- Crystallisation






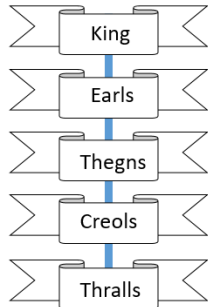








Geography	KPOW: An introduction to the UK.	Year 7: Autumn Term 1
Week 2: Our island home.	Week 3: Land's End to John o' Groats.	Week 4: The UK in Europe
<p>There are many ways to describe where we live. We often use the British Isles, the UK and Great Britain, some even just say England. The UK includes Scotland, England, Wales and Northern Ireland. The British Isles includes the whole of the UK plus the Republic of Ireland. However, Great Britain just includes Scotland, England and Wales. It can get a little muddled.</p> <p>One thing we need to be clear on is that England is only a small part of the UK.</p> 	<p>The Land's End to John o' Groats route stretches the whole length of the British Isles, starting in the south-west of Cornwall and ending in the north-east corner of Scotland.</p> <p>Many people choose to either walk, cycle or run the 1407 km challenge, raising money for charity.</p> <p>The route travels through a variety of diverse rural and urban landscapes, including four national parks; Dartmoor, the Lake District, Loch Lomond and the Cairngorms. These spectacular landscapes attract tourists who enjoy outdoor activities such as walking, climbing and water sports.</p>	<p>The UK is located mainly between 50 and 60 degrees North.</p> <p>The UK has many links with Europe including for food, to gain energy and for tourism. The most popular destination for UK holiday makers is Spain (10 million per year).</p> <p>Cheap flights in the past have led to the increase in travel to European countries.</p> <p>The UK's links with Europe are vital for us to maintain our quality of life. Without these links our lives would be very different.</p>
Week 5: Our local environment	Week 6: The UK through Ordnance Survey maps	Weeks 7 and 8: Key Piece of work (KPOW)
<p>Our local environment is a small area that surrounds us. It consists of human and physical features. Fieldwork is when you go outside the classroom and find things out for yourself.</p> <p>This lesson is very skilled based. In the lesson we will carry out data collection techniques. This is what we do to collect the information we need. Secondly, we will carry out data presentation techniques. This is when we return to the classroom and graph or map our information. We will then practice our evaluation skills to see what went well about the fieldwork and what we could improve if we did it again.</p>	<p>Maps come in lots of varieties and can be used by lots of groups of people. With maps we need to know:</p> <ul style="list-style-type: none"> • The 8 points of the compass (see picture) • That OS maps show an area in lots of detail • OS maps use grid lines and symbols to help find places easier • 4 figure grid references make finding a specific place on a map easier • The rule for 4 figure grid references is along the corridor and then up the stairs  	<p>In your KPOW, you will be asked about a range of things from the topic you have covered in class. You need to learn the following key words:</p> <p>Keywords:</p> <p>L1: Scale – the size of an area represented on a map.</p> <p>L2: Diversity – lots/ a variety of.</p> <p>L3: Latitude – distance north or south of the equator.</p> <p>L4: Local environment – a small area such as a housing estate or park.</p> <p>L5: Grid references – used to find a location on an OS map.</p>





History		KPOW: What impact did settlers have on the England?	Year 7: Autumn Term 1
Week 2: Who were the early settlers?		Week 3: What impact did settlers have on Britain?	Week 4: How was Anglo Saxon England ruled?
<p>The British Isles = the islands that make up what most people call Britain today.</p> <p>Most evidence comes from artefacts.</p> <p>People originally arrived from Europe via a land bridge. 8500BC - the climate warms, the water rises and the land bridge disappears and Britain became an island.</p> <p>More settlers arrived by boat.</p> <p>The Bronze Age: 2500BC – new settlers arrived who could make tools from bronze.</p> <p>The Iron Age: 800BC – people learned how to make tools from iron.</p> <p>Artefact = an object made by a human being, often used to find out about the past.</p>  		<p>Celts: Arrived from central Europe. Farmed, built forts and held yearly assemblies to settle disputes.</p> <p>Romans: Arrived from Italy, invaded Britain in AD43. Many Roman towns are still important today such as York and Lincoln.</p> <p>Anglo Saxons: Came from modern day Denmark and Germany. They gave England its name – Angle Land.</p> <p>Vikings: Arrived from Scandinavia. After years of fighting, they made an agreement to split England into two. Saxons in the south and Vikings in the north.</p> 	<p>In 1042, Anglo Saxon was peacefully united under one King – Edward the Confessor.</p> <p>He was helped by a group of advisors called the Witan.</p> <p>Society was split into groups:</p> <p>Earls = heads of important families.</p> <p>Thegns (pronounced thane) = Local landowners.</p> <p>Ceorls (pronounced churl) = Ordinary villagers.</p> <p>Thralls = Slaves, prisoners captured during war, law breakers and people unable to pay off debts.</p> 
Week 5: Why was England attractive to invaders?		Week 6: KPOW	Weeks 7 and 8: Claimants to the throne
<p>Coins: Produced their own coins to make trading easier.</p> <p>Crafts: Were highly skilled craft workers making tools, pots, jewellery, musical instruments and even board games.</p> <p>Writing: Some educated Saxons communicated with the rest of Europe using letters.</p> <p>Buildings: Wooden buildings were gradually replaced by reusing the stone from Roman buildings.</p> <p>Goods: The Saxons had many valuable goods to trade such as tin, wool, honey, copper, wheat and salt.</p>  		<p>Inhabitants = a person or animal who occupies a place.</p> <p>Settlers = people who move from one area to another and stay.</p> <p>Earl = The heads of important families who helped the king to rule.</p> <p>Natural resources = materials from the earth used to support life and people's needs.</p> <p>Trade = Buying and selling goods and services.</p> <p>Craft workers = Highly skilled workers who can make things.</p>  <p>Explain = give reasons.</p> <p>Impact = influence or effect.</p>	<p>Edward the Confessor: Dies in January 1066 leaving no heir.</p> <p>Harald Hardrada:</p> <p>Viking. His ancestor Canute had been King of England 1016-1035. Parts of the north still supported the Vikings.</p> <p>Harold Godwinson:</p> <p>English. Claimed Edward had promised him the throne. He was an important Earl with a lot of support in England.</p> <p>William Duke of Normandy:</p> <p>Norman. Claimed Edward had promised him the throne. Said that Harold Godwinson had promised to support him.</p> 





Technology: Food

Week 2 & Week 3

Key terms in cooking:

Simmering- cooking a product then reducing the heat to low, e.g. curry.

Boiling- cooking a product in bubbling water, e.g. pasta.

Frying- cooking something in a small amount of fat, e.g. onions.

Chopping- using a knife to cut a product into small chunks, e.g. peppers.

Peeling- taking the skin off a product, e.g. apple.

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.



Practical planning

You will plan to make fruit kebabs that will be garnished by using the bridge and claw method.

Simple method

1. Wash and chop fruit into even pieces.
2. Slide onto skewer through the centre.
3. Melt chocolate in 30 second bursts in the microwave and drizzle over.
4. Present on a plate.



KPOW: Healthy Eating

Week 4 & Week 5

Practical Planning

You will make a hot sandwich by showcasing skills in knife safety, time management, using a sequence of work and health and safety as well as using a hob and managing pan handles safely to the side.

Simple method

1. Put pan on heat and add a small amount of oil.
2. Add bacon or sausage and cook until crispy and brown.
3. While meat is cooking butter bread & place on serving plate.
4. Add cooked bacon/sausage to bottom slice of bread and place another slice on top.
5. Add sauce and cut in half.
6. Present and enjoy!



Nutrients and Eatwell

Nutrient	Function	Where from?
Carbohydrate Fast release- sugars Slow release- starches	Gives us energy	Starches- cereal, potatoes, pasta, rice Sugars- white sugar, sweets, honey
Fat Saturated- bad Unsaturated- good	Keeps us warm and insulated	Processed meat- meatballs, burgers, fried food-chips, junk food-biscuits, cakes Avocado, coconut, plant oils, olives, nuts
Vitamins and Minerals	Prevent illness	Any fruit, vegetable or salad item
Protein	Helps bodies to grow and repair	Lean meat- chicken, steak, fish, eggs, milk
Fibre	Helps our digestion	Brown bread, brown rice, brown pasta ie wholewheat items- cereals such as Weetabix, bran flakes

Year 7: Autumn Term 1

Week 6 & Week 7 & Week 8

Practical Planning

You will plan to make Spaghetti Bolognese, this will showcase you using a hob as well as following a plan of making, using time management, and following health and safety rules.



Half of the group will make Spaghetti Bolognese and the other half will be the sous chef (helper).

Simple method

1. Put water in a saucepan up-to the half-way mark and get onto boil.
2. Chop up onion and crush garlic- use bridge or claw method.
3. Fry off in a wok pan until soft.
4. Add mince and cook until brown.
5. Add tomatoes, herbs, spices and leave to simmer for 10 minutes.
6. Drain pasta and plate up pasta on the base and meat sauce on top.

Food provenance and seasonality

You will learn where food comes from and where in the world fruit and vegetables grow.

Food provenance- where food is grown raised or reared.

Seasonality- when food is harvested and grown at specific times of the year, e.g., strawberries in the UK in June/July.





Technology: Product Design

Week 2 & Week 3

Use the Landscape strategy to create 3 designs for your wooden key ring. This strategy helps you understand how a piece of acrylic can be inlayed (stuck) between two pieces of wood. These designs are to be colour rendered (to look realistic), with the inlayed acrylic having a bright contrasting colour

Tools and machinery used to create the wooden keyring:

Tenon saw – for cutting straight lines

Band facer – for hard sanding

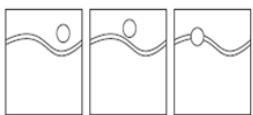
Sandpaper – for light sanding

Files – for chamfering (removing) the edges of the timber.

Pillar drill – to drill the key ring hole

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.



Week 4 & Week 5

Iterative design process is where the designer will test the success of a product throughout, rather than just at the end.

This iterative process will help to produce a design for a wooden children's toy that is themed on transport.

Woods.

Natural wood comes from trees, synthetic wood is man-made.

Softwood grow faster than hardwoods, and therefore are less expensive.

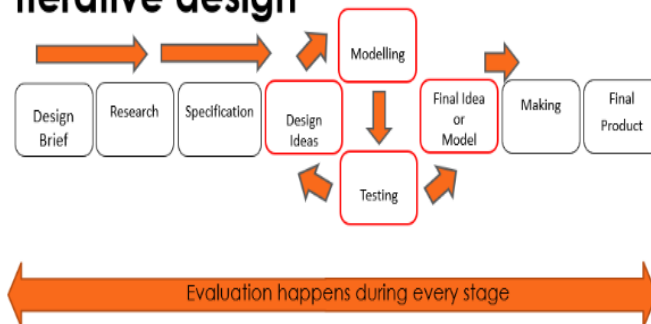
Coniferous trees – Softwood – Scots pine, parana pine, spruce, cedar.

Deciduous trees (grows leaves that are lost in Autumn)

- Hardwood – Beech, elm, ash, mahogany, oak.

The Design Process

Iterative design



Year 7: Autumn Term 1

Week 6 & Week 7 & Week 8

The tangram strategy helps you to create simple ideas using geometric shapes. Tangrams originated in China as a puzzle.

Designs produced are in grids of 7cm by 15cm.

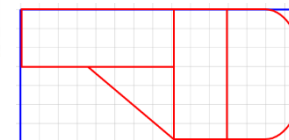
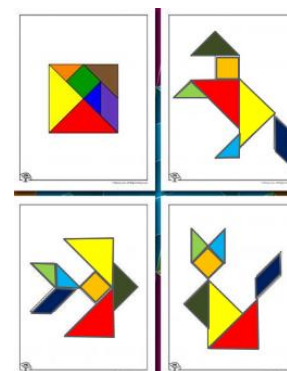
15cm = 150mm

7cm = 70mm

Man-made boards:

MDF (Medium density fibreboard), chipboard, hardboard, blockboard, plywood.

Man-made boards are made in factories and generally use the leftovers, such as sawdust and wood chippings. They are less expensive than natural wood but can be more stable.





Technology: Textiles

Week 2 & Week 3

Sketching – quick, initial ideas drawn in pencil.

Key Word: CULTURE – ideas, customs and social behaviour of a group/society.

Theme – *British Culture*

Cuisine – typical British food, fish & chips, English breakfast, cream tea.

Iconic images – (iconic = Very famous/widely recognised) e.g. Houses of Parliament, London Bus, Union Jack Flag.

Symbolism (use of symbols, in this case pictures, to represent ideas) – **umbrella** because that's what British businessmen carry because it rains a lot; a **crown** for the royal family; a **football** to show a love of sport.



Surface decoration techniques – how you can decorate fabric to enhance (improve) its appearance (how it looks).

Key Word: RESIST – coating/method applied to prevent dye being absorbed (soaked up) by the fabric.

Techniques:

Batik – is a resist method, the resist is the dried wax. Tool used is Tjanting (see pic below).

Tie dye – is a resist method, the resist is the elastic band tied tightly around the material (see pic below).

Stencil – Is NOT a resist method. Cut shape out of card, that becomes your stencil which is a template (see pic below). Dabbing paste on using a sponge.



Theory: Fibres – Thin strands that are joined together to make a yarn.

Key Word: FIBRES

Fibre: hair like structure. **Yarn:** lots of fibres twisted together.

Woven: yarns placed over and under each other to create a fabric.

Table showing **SOURCES** (where they come from) of fibres

Natural		Man-made	
PLANT	ANIMAL	REGENERATED	SYNTHETIC
Flax (grown to make linen)	Wool (from a sheep)	Viscose	Acrylic
Jute (used to make canvas)	Angora (rabbit & goat)	Cellulose acetate	Nylon
Bamboo (in the nettle family)	Horsehair	Rubber	Polyester
Cotton (from seed of cotton plant)	Silk (from a cocoon produced from silk worms)	Tencel (microfibre)	Lycra
Hemp (tall plant with a long stalk)	Cashmere (goat)	Rayon	Tactel (microfibre)

KPOW: Design & Make a cushion cover

Week 4 & Week 5

Sewing machine introduction – threading a machine (top thread and bottom thread [spool]).

Key Word: DISRUPT – prevent a system or process from continuing as usual (DO NOT DISRUPT OTHERS).

The sewing machine & the skills to sew around to help develop control (directing the machine) and accuracy (precise and where the stitch should be).

Health and Safety:



Surface decoration technique Applique

Key Word & Technique: APPLIQUE – stitching a small piece of fabric onto a larger piece to make a pattern or design.

Materials & Method: Bondaweb – double sided fabric glue.

1. Iron rough side of bondaweb to the back of the small piece of fabric.
2. Draw image onto tracing paper side.
3. Steps 3,4 & 5 see image below:

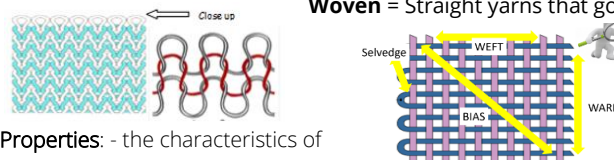


Theory: Fabric Construction methods Woven & Knitted – How yarn is made into fabric.

Key Word: CONSTRUCTION – The process of building something i.e. how it is made.

Knitted = Loops of yarn that interlock.

Woven = Straight yarns that go



Properties: – the characteristics of either a fibre, yarn or fabric:

Properties of knitted fabric – stretchy, doesn't fray, unravels if damaged, drops creases easily
Common knitted products – woolly hats, gloves, scarves, tights, socks, t-shirts.

Properties of woven fabric – strong, frays, creases easily, doesn't stretch.

Common woven products – trousers, shirts, bedding, curtains.

Weft – thread that goes from left to right, right to left & over and under the warp thread.

Warp – threads that are vertical and which are set on the loom (machine you weave on).

Selvedge – the finished edge of the fabric that does not fray.

Bias – is positioned diagonally across the fabric (at 45 degrees), so the fabric is stretchy and then hangs differently.

Year 7: Autumn Term 1

Week 6 & Week 7 & Week 8

Final Idea – a development of the cushion design which evolves from the sketches page ideas, selecting the most suitable images/ideas for each surface decoration technique (Batik, tie dye, stencil, applique).



Key word: SUITABLE – right or appropriate.

Successful colour shading – even use of the pencil to get clear colouring in.



Tonal shading – to add deeper colour on parts of the design by pressing harder to add a more realistic finish.

Representing batik – double line

your design so it remains white, add colour either side of it (see image above).

Annotation of Final Idea – a note of explanation or comment added to a diagram / drawing.

Key Word: CONCISE – giving a lot of information clearly in a few words

Areas to explain:

1. How images link to British Culture –

Reflecting – shows what it is like / **Common** – Found or done often / **Iconic** – famous or popular / **Symbolises** – to represent something / **Monarchy** – country with a king or queen / **Popular** – liked by many / **Recognisable** – capable of being identified / **Represents** – sign or symbol of something / **National** – of a country & its people / **Famous** – known and recognised by many / **Historical** – used to describe something from the past

2. The challenges are:

Curves / fiddly processes / difficult area of ... / complicated ... / complex process of ... / being able to ... / Symmetry of ... / ensuring the accuracy of ...

Theory: Fabric construction methods, Laminated and Bonded & Microfibrres

Key words: COMPRESSED – flattened by pressure. **MICRO** – ancient Greek word meaning small.

Laminated Fabric (layers of fabric glued and bonded together).

Bonded Fabric (fibres that are compressed [PRESSURE PRESSED] together using heat, pressure and an adhesive [GLUE]).

Microfibre – less than 1 denier thick which is equivalent to 60/100 times finer than a human hair.

Look like: shaped like a star (snowflake or flower describes them too).

How they work: they trap dust and dirt in their grooves.




Made from: synthetic fibres, normally polyester or nylon.

Common products made from microfibre: sportswear, dusters, sports & dog towels and underwear.

Properties: ultra fine, Washable, high strength, comfortable, high absorption, breathable.





Core PE	KPOW: Skeletal and Muscular System.	Year 7: Autumn Term 1
Week 2 & Week 3	Week 4 & Week 5	Week 6 & Week 7 & Week 8
<p>Name of bone: Cranium</p> <p>Location: Head</p> <p>Type of Bone: Flat</p> <p>Function of Bone: Protection of the brain.</p> <p>Sporting Example: Protects the football player from concussion, when heading the ball, by cushioning the blow.</p> 	<p>Name of bone: Ribs</p> <p>Location: Chest</p> <p>Type of Bone: Flat</p> <p>Function of Bone: Protection of the heart and lungs.</p> <p>Sporting Example: Protects the rugby player from a punctured lung, during a rugby tackle, by cushioning the blow.</p> 	<p>Name of bone: Humerus</p> <p>Location: Upper arm</p> <p>Type of Bone: Long</p> <p>Function of Bone: Major movements of the arm.</p> <p>Sporting Example: Playing a smash in badminton.</p> 
<p>Skill that is being promoted in lessons, that will be an advantage in the world of work:</p> <p>Staying positive at all times.</p>		

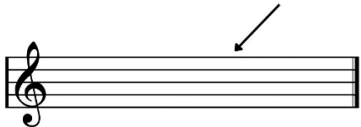






















Computing & Digital Media	KPOW: Computer Hardware	Year 7: Autumn Term 1																																																			
Week 2 & Week 3	Week 4 & Week 5	Week 6 & Week 7 & Week 8																																																			
Keywords: Online Safety - The safe and responsible use of the internet and the technology you use.	Keywords: Peripheral – A piece of equipment, such as a printer, that can be connected to a computer. Input & Output – An input refers to data being entered into a computer, whereas data generated by a computer is referred to as an output.	Keywords: Storage – Something that holds data. Capacity – The maximum amount a storage device such as a hard drive can hold.																																																			
<p>A password is classed as a strong password if it has the following characteristics:</p> <ul style="list-style-type: none"> • It is not personal to you. • At least 8 characters long. • Contains a mixture of upper and lower characters. • Contains special characters such as symbols. • Contains numbers. <p>To stay safe online, you should:</p> <ul style="list-style-type: none"> • Not display personal information on your profile, such as what school you attend, age or your address. • Only 'add' people you know. • Make sure your account is set to 'private'. <p>Who can you go to if you need help with something that has happened online?</p> <ul style="list-style-type: none"> • A teacher. • Your parents. • The E-Safety co-ordinator in school. • The Police. 	<p>Hardware is any item of a computer that you can physically touch. Example of hardware are:</p> <ul style="list-style-type: none"> • Motherboard – The backbone of the computer, every other piece of hardware connects to this. • CPU – This is the brain of the computer that processes everything. • RAM - Holds the data and software that is currently being used. <p>Peripheral devices are those that can be plugged into a computer and used as accessories. Each peripheral device is either an input or an output:</p> <table border="1"> <thead> <tr> <th>Peripheral</th><th>Input</th><th>Output</th></tr> </thead> <tbody> <tr> <td>Headphones</td><td></td><td>✓</td></tr> <tr> <td>Mouse</td><td>✓</td><td></td></tr> <tr> <td>Keyboard</td><td>✓</td><td></td></tr> <tr> <td>Printer</td><td></td><td>✓</td></tr> <tr> <td>Monitor</td><td></td><td>✓</td></tr> </tbody> </table> <p>Software is a program that will run on the computer. You can use it and interact with it but cannot touch it physically. Examples of software include:</p> <ul style="list-style-type: none"> • Microsoft PowerPoint. • Adobe Photoshop. • Microsoft Word. • Google Chrome. 	Peripheral	Input	Output	Headphones		✓	Mouse	✓		Keyboard	✓		Printer		✓	Monitor		✓	<p>There are two types of storage that computers make use of- these are primary and secondary storage:</p> <p>Primary storage – is directly accessed by the CPU and is normally the fastest memory in the computer. Primary storage is RAM, ROM and cache (memory inside the CPU).</p> <p>Secondary storage – this is where you can permanently save your files. Secondary storage is split into three different categories. See below:</p> <table border="1"> <thead> <tr> <th>Magnetic</th><th>Solid State</th><th>Optical</th></tr> </thead> <tbody> <tr> <td>Hard disk drive</td><td>USB Flash drive</td><td>CD</td></tr> <tr> <td>Tape drive</td><td>SD Card</td><td>DVD</td></tr> <tr> <td></td><td></td><td>Blu ray</td></tr> </tbody> </table> <p>Storage is measured in Bytes and speed, such as the CPU, is measured in Hertz.</p> <table border="1"> <thead> <tr> <th>Order</th><th>Hertz</th><th>Bytes</th></tr> </thead> <tbody> <tr> <td>Smallest</td><td></td><td>Bit</td></tr> <tr> <td>↑</td><td>Hz</td><td>Byte</td></tr> <tr> <td></td><td>KHz</td><td>KB</td></tr> <tr> <td></td><td>MHz</td><td>MB</td></tr> <tr> <td>↓</td><td>GHz</td><td>GB</td></tr> <tr> <td>Largest</td><td></td><td>TB</td></tr> </tbody> </table>	Magnetic	Solid State	Optical	Hard disk drive	USB Flash drive	CD	Tape drive	SD Card	DVD			Blu ray	Order	Hertz	Bytes	Smallest		Bit	↑	Hz	Byte		KHz	KB		MHz	MB	↓	GHz	GB	Largest		TB
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Music	KPOW: Rap	Year 7: Autumn Term 1																		
Week 2 & Week 3: Basic Elements	Week 4 & Week 5: Elements Continued	Week 6 & Week 7 & Week 8: Performance																		
<p>Key words and definitions</p> <p>Stave</p>  <p>Pitch How high or low a note is.</p> <p>Dynamics How loudly or quietly a piece of music should be played.</p> <p>Tempo The speed at which a passage of music is or should be played.</p> <p>Treble Clef</p>  <p>Pitch on the stave: The Spaces on a stave spell the word FACE:</p> 	<p>Key words and definitions</p> <p>Ostinato A motif or phrase that persistently repeats, usually in the same voice and pitch. A Pattern that repeats.</p> <p>Duration How long or short a note is. The different names for notes are Semibreve, Minim, Crotchet, Quaver and Semiquaver.</p> <p>Tonality Whether a song is Major (happy) or Minor (Sad).</p> <p>Pitch on the stave: The lines of the stave are EGBDF. An easy way to remember this is: Every Good Boy Deserves Football.</p>  <p>Teamwork: Your rap performance is an ensemble, and every member of your group should make a meaningful contribution to the performance.</p>	<p>Keywords and definitions</p> <p>Percussion A family of instruments that must be hit (usually with a beater) to make a sound, e.g. Drums.</p> <p>Performance When a musician demonstrates their skills practically.</p> <p>Ensemble When a group of musicians perform together. These are the different note values (duration):</p> <table border="1"> <thead> <tr> <th>Note Names</th><th>Note Symbols</th><th>Note Value</th></tr> </thead> <tbody> <tr> <td>Semibreve</td><td></td><td>4 beats</td></tr> <tr> <td>Minim</td><td></td><td>2 beats</td></tr> <tr> <td>Crotchet</td><td></td><td>1 beat</td></tr> <tr> <td>Quaver</td><td></td><td>½ of a beat</td></tr> <tr> <td>Semiquaver</td><td></td><td>¼ of a beat</td></tr> </tbody> </table> <p>Respect: When people are performing it is important to show respect. You can do this by sitting silently and watching their performance with focus. You should be prepared to give feedback.</p> <p>Peer Feedback: While watching others perform, you should be prepared to give feedback at the end. You should think of 'what went well' (WWW) and one 'even better if' (EBI)</p>	Note Names	Note Symbols	Note Value	Semibreve		4 beats	Minim		2 beats	Crotchet		1 beat	Quaver		½ of a beat	Semiquaver		¼ of a beat
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Art

Week 2 & Week 3

Key words and definitions

Tone/Value – highlight, mid tones and shadow. This is used to make our drawings look realistic and 3D.

Line - a line is a mark made on a surface that joins different points. **Lines** can vary in length, width, direction and shape.

Develop – making progress by refining, improving and exploring.

Culture – social traits, beliefs, ideas, possessions that characterise your community and time period.

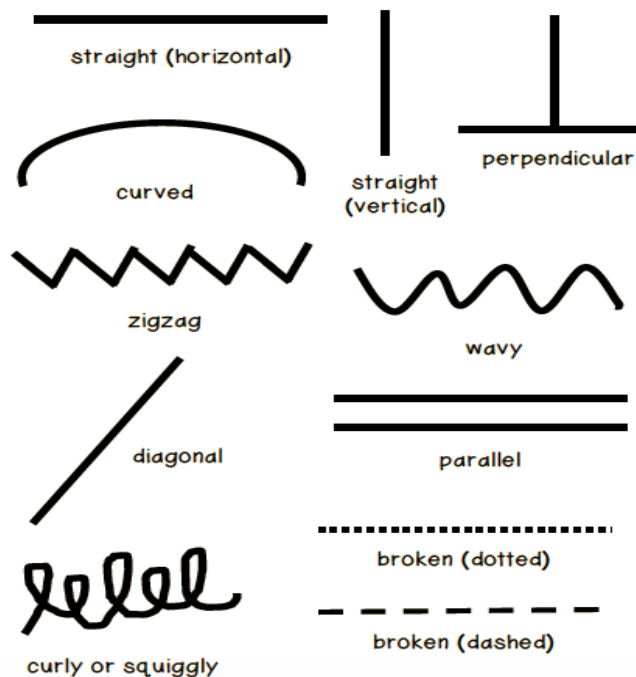
Outcome - A piece of Art that you have created using inspiration from others along with your own ideas.

Pattern - a design in which lines, shapes, forms or colours are repeated.

Observational drawing - to record a subject as accurately as possible.

Week 4 & Week 5

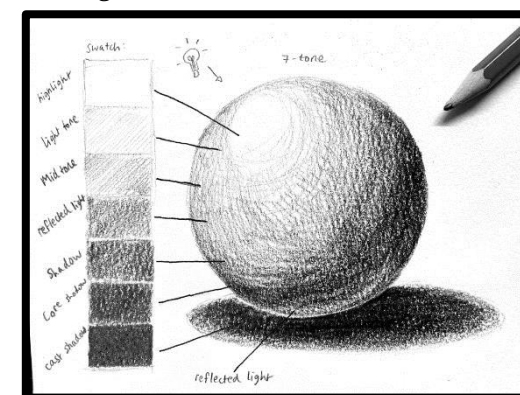
Types of Lines



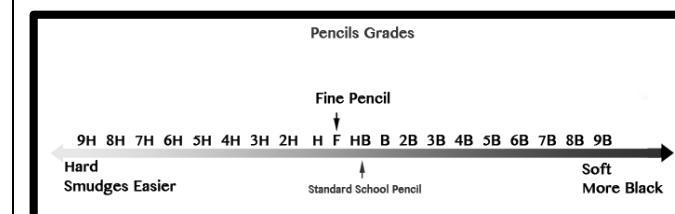
Year 7: Autumn Term 1

Week 6 & Week 7 & Week 8




Pencil control - How you hold your pencil and the pressure you use are important factors within drawing and **shading** - the process of adding value to create the illusion of form, space, and most importantly, light in a drawing. Heavy pressure = dark shade and gentle pressure = light shade.



Blending - Moving from one tone to the next smoothly.





Drama	KPOW: Introduction to Drama	Year 7: Autumn Term 1
Week 2 & Week 3	Week 4 & Week 5	Week 6 & Week 7 & Week 8
<p>Health and Safety Expectations in the Drama Studio</p> <ul style="list-style-type: none"> You must remove your bag, coats and shoes. No running in the Drama studio. No physical contact with other students. Respect the space and your peers.  <p>Skills</p> <p>Blocking: to stop a conversation from happening by giving one word answers.</p> <p>Accepting: to converse in a conversation allowing the scene to flow.</p> <p>Skills in Drama that will be an advantage in the world of work: Leadership, Speaking, Team work, Creativity, Communication, problem solving.</p> <div data-bbox="98 1244 779 1426"> <p>Key Word:</p> <p>Conversation a talk, especially an informal one, between 2 or more people.</p> </div>	<p>Baseline assessment with script</p> <ul style="list-style-type: none"> Drama Assessment: a practical performance acting on stage. Script: the written text of a play or film.  <p>Skills</p> <p>Spontaneous: the skill of making something up on the spot.</p> <p>Rehearsal: a rehearsal is a practice for a performance done prior to an event or before viewing by an audience.</p> <p>Audience Awareness: the correct positioning on stage. You must be in clear view of the audience.</p> <div data-bbox="788 1244 1469 1426"> <p>Key Word:</p> <p>Improvisation: created spontaneously or without preparation.</p> </div>	<p>Imagination and Creativity – Sales Pitch</p> <ul style="list-style-type: none"> Imagination: the ability to think of new ideas.  <p>Skills</p> <p>Persuasive Language: can be used to help to sell products or to convince people to accept a view or idea.</p> <p>Performing: showing your piece of theatre to an audience.</p> <p>Evaluate work: give feedback to peers on their performance that includes strengths and areas for improvement. This will help them improve their work.</p> <div data-bbox="1478 1244 2145 1426"> <p>Key Word:</p> <p>Prop: items held or used by actors onstage to make the action more realistic.</p> </div>





Learning 4 Life

Week 2 & Week 3

Please learn the definitions of the following 12 words:

Hygiene	Maintaining health and preventing disease through cleanliness.
Protein	This is needed to build, maintain, and repair the tissues in our body.
Calories	The amount of energy or sugar in a food is measured by these.
Dairy	Any food made from milk products.
Physical	Relating to the body, not the mind.
Obesity	A medical condition that occurs when a person carries excess weight.
Health	A person's mental or physical condition.
Care	The provision of what is necessary for the health, welfare, maintenance, and protection of something.
Guru Nanak	The name of the person who founded the religion of Sikhism.
Langar	A free kitchen found in a Sikh place of worship.
Gurdwara	A Sikh place of worship.
Guru Granth Sahib	The Sikh holy book.

Week 4 & Week 5

Please learn these facts about healthy food choices:

- Recommended daily steps: 10,000
- Recommended daily portions of fruit & vegetables: 5
- Recommended daily calories for an adult male: 2,500
- Recommended daily calories for an adult female: 2,000
- Recommended daily sugar for those aged 7-10: 6 teaspoons
- Recommended daily sugar for those aged 11 and over: 7 teaspoons
- Too much sugar softens your teeth by removing the enamel
- Protein: builds muscle
- Carbohydrates: provide energy

The Healthy Eating Pyramid

The smaller the section in the pyramid, the less of that food you should eat each meal:



<https://youtu.be/vADtodHhfKU>

Year 7: Autumn Term 1

Week 6 & Week 7 & Week 8

Please learn these key facts about dental hygiene:

- Brush your teeth twice a day
- Use floss to help look after your gums
- Visit the dentist twice a year

How sugary are some drinks (tsp)?

	0		6
	5.5		10
	10		7
	12		29.5

How is smoking linked to dental hygiene?

Smoking can cause:

- bad breath
- stained teeth
- gum disease
- increased plaque
- tartar build up
- increased risk of oral cancer



<https://youtu.be/9Qa2K1CC3Hw>





Home Learning Schedule

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

Home Learning is set every **Monday** and will be submitted in **P&A Time** every **Monday**

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