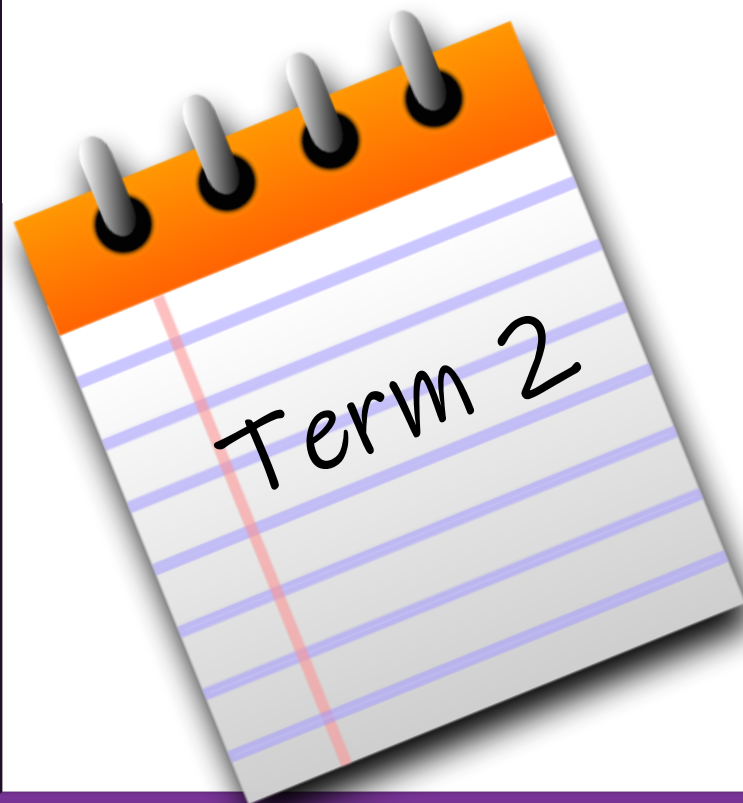


The Knowledge Organisers Pack



Year
9





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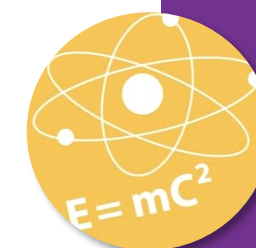
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Y9 Poetry: Faces of Love Knowledge Organiser

Poetic Techniques

Term	Definition
Plosives	Repeated hard sounds such as 'b', 'p' or 'd'
Metaphor	When you say something IS something else which it cannot be. "She's a star."
Simile	When you compare using 'like' or 'as.' As brave as a lion"
Oxymoron	Linking two words with opposite meanings. "Silent scream"
Colloquial	Everyday informal expressions used by locals.
Assonance	Repetition of a vowel sound. "o" "Go slow over the road."
Emotive Language	Language to create a specific emotion.
Figurative Language	Use of metaphor, simile and personification to describe non-literally.
Imagery	Description which appeals to our senses.
Structure	The organisation of a poem.
Sibilance	Repeated 's' or 'sh' sound
Semantic Field	A group of words in the same poem which link to the same idea/theme
Caesura	A pause in the poem such a comma, dash or full stop.
Enjambment	Where one line runs into another with no punctuation.
Juxtaposition	Where two contrasting ideas are placed together

Poetic Forms

Term	Definition
Auto-biographical...	about the poet's life and experiences.
Narrative...	tells a story.
Dramatic Monologue...	by one speaker and reveals aspects of their character.
Ballad...	intended to be performed to music. Often romantic or sentimental.
Spoken Word...	Rhythmic performance which does not have to rhyme but focuses on intonation and word play.

Meet the Poets...

Poet	Background
Day-Lewis	1904-72. Irish born poet with communist views. His work often focuses on social commentary, personal experiences and nature.
Burns	1759-96. National poet of Scotland. A pioneer of the Romantic movement. His work is often blunt, sometimes political and deals with strong emotional highs and lows.
Browning	1812-89. Famous for his DMs. His work is known for its irony, characterisation, social commentary and challenging vocabulary.
Byron	1788-1824. Another pioneer of the Romantic movement but from England. Known for his long intricate poetry and his turbulent, scandalous private life.
Angelou	1928-2014. Famous for her autobiographical work in all forms which focus on her difficult early life being a black woman in America
Walsh	1965-present. Manchester born, working class performance poet most widely famous for "This is the Place" written in response to the Manchester bombing.

Key Vocabulary

Nostalgia, Profound, Conflicted, Juxtapose, Connotations, Hyperbole, Infatuation, Inconsolable, Histrionic, Accusatory, Emancipation, Exclamative, Zeal, Anaphora, Patriotic, Xenophobic

What is 'Love'?
How many forms can 'Love' take?

Chapter	Plot	Character		Vocabulary	Context
1 The Story of the Door	Passing a strange-looking door whilst out for a walk, Enfield tells Utterson about incident involving a man (Hyde) trampling on a young girl. The man paid the girl compensation. Enfield says the man had a key to the door (which leads to Dr Jekyll's laboratory)	Dr Henry Jekyll	A doctor and experimental scientist who is both wealthy and respectable.	aberration	<i>Fin-de-siècle fears</i> – at the end of the 19 th century, there were growing fears about: migration and the threats of disease; sexuality and promiscuity; moral degeneration and decadence.
2 Search for Hyde	Utterson looks at Dr Jekyll's will and discovers that he has left his possessions to Mr Hyde in the event of his disappearance. Utterson watches the door and sees Hyde unlock it, then goes to warn Jekyll. Jekyll isn't in, but Poole tells him that the servants have been told to obey Hyde.	Mr Edward Hyde	A small, violent and unpleasant-looking man; an unrepentant criminal.	abhorrent	
		Gabriel Utterson	A calm and rational lawyer and friend of Jekyll.	allegory	
3 Dr Jekyll was Quite at Ease	Two weeks later, Utterson goes to a dinner party at Jekyll's house and tells him about his concerns. Jekyll laughs off his worries.	Dr Hastie Lanyon	A conventional and respectable doctor and former friend of Jekyll.	allusion	<i>Victorian values</i> – from the 1850s to the turn of the century, British society outwardly displayed values of sexual restraint, low tolerance of crime, religious morality and a strict social code of conduct.
4 The Carew Murder Case	Nearly a year later, an elderly gentleman is murdered in the street by Hyde. A letter to Utterson is found on the body. Utterson recognises the murder weapon has a broken walking cane of Jekyll's. He takes the police to Jekyll's house to find Hyde, but are told he hasn't been there for two months. They find the other half of the cane and signs of a quick exit.	Richard Enfield	A distant relative of Utterson and well-known man about town.	anxiety	
		Poole	Jekyll's manservant.	atavism	
		Sir Danvers Carew	A distinguished gentlemen who is beaten to death by Hyde.	consciousness	
5 Incident of the Letter	Utterson goes to Jekyll's house and finds him 'looking deadly sick'. He asks about Hyde but Jekyll shows him a letter that says he won't be back. Utterson believes the letter has been forged by Jekyll to cover for Hyde.	Mr Guest	Utterson's secretary and handwriting expert.	debased	The implications of <i>Darwinism and evolution</i> haunted Victorian society. The idea that humans evolved from apes and amphibians led to worries about our lineage and about humanity's reversion to these primitive states.
6 Remarkable Incident of Dr Lanyon	Hyde has disappeared and Jekyll seems more happy and sociable until a sudden depression strikes him. Utterson visits Dr Lanyon on his death-bed, who hints that Jekyll is the cause of his illness. Utterson writes to Jekyll and receives a reply that suggests he is has fallen 'under a dark influence'. Lanyon dies and leaves a note for Utterson to open after the death or disappearance of Jekyll. Utterson tries to revisit Jekyll but is told by Poole that he is living in isolation.	Themes		degenerate	
		The duality of human nature		depraved	
		Science and the unexplained		duality	
7 Incident at the Window	Utterson and Enfield are out for walk and pass Jekyll's window, where they see him confined like a prisoner. Utterson calls out and Jekyll's face has a look of 'object terror and despair'. Shocked, Utterson and Enfield leave.	The supernatural		duplicity	<i>Physiognomy</i> – Italian criminologist Cesare Lombroso (1835-1909) theorised that the 'born criminal' could be recognised by physical characteristics, such as asymmetrical facial features, long arms or a sloping forehead.
8 The Last Night	Poole visits Utterson and asks him to come to Jekyll's house. The door to the laboratory is locked and the voice inside sounds like Hyde. Poole says that the voice has been asking for days for a chemical to be brought, but has rejected it each time as it is not pure. They break down the door and find a twitching body with a vial in its hands. There is also a will which leaves everything to Utterson and a package containing Jekyll's confession and a letter asking Utterson to read Lanyon's letter.	Reputation		epistolary	
		Rationality		ethics	
9 Dr Lanyon's Narrative	The contents of Lanyon's letter tells of how he received a letter from Jekyll asking him to collect chemicals, a vial and notebook from Jekyll's laboratory and give it to a man who would call at midnight. A grotesque man arrives and drinks the potion which transforms him into Jekyll, causing Lanyon to fall ill.	Urban terror		eugenics	<i>Victorian London</i> – the population of 1 million in 1800 to 6.7 million in 1900, with a huge numbers migrating from Europe. It became the biggest city in the world and a global capital for politics, finance and trade. The city grew wealthy.
10 Henry Jekyll's Full Statement of the Case	Jekyll tells the story of how he turned into Hyde. It began as a scientific investigation into the duality of human nature and an attempt to destroy his 'darker self'. Eventually he became addicted to being Hyde, who increasingly took over and destroyed him.	Secrecy and silence		feral	
				genre	
				metamorphosis	
				perversion	<i>Urban terror</i> – as London grew wealthy, so poverty in the city also grew. The overcrowded city became rife with crime. The crowd as something that could hide sinister individuals became a trope of Gothic and detective literature.
				professional	
				respectability	
				restraint	<i>Robert Louis Stevenson</i> was born and raised in Edinburgh, giving him the dual identity of being both Scottish and British. Edinburgh was a city of two sides - he was raised in the wealthy New Town area, but spent his youth exploring the darker, more sinister side of town.
				savage	
				subconscious	
				suppression	<i>Deacon Brodie</i> – a respectable member of Edinburgh's society and town councilor, William Brodie lead a secret life as a burglar, womaniser and gambler. He was hanged in 1788 for his crimes. As a youth, Stevenson wrote a play about him.
				supernatural	
				unorthodox	
				Victorian	

Basic Algebra

Key vocabulary

Powers, Indices,
Reciprocal, Roots,
Brackets, Multiply out,
Expand, Simplify, Factor,
Factorise, Algebra,
Notation, Coefficient,
Expression, Equation,
Formula, Identity,
Inequality, Term,
Collecting like terms,

Picture perfect

Expanding brackets:

- Expanding means remove brackets
- Use the claw

e.g. $3(5a - 2) = (3 \times 5a) - (3 \times 2)$
 $= 15a - 6$

Factorising expressions:

- The opposite (inverse) of expanding
- Answer will include brackets
- Look for common factors (numbers and algebra)
- Always choose the HCF

e.g. $10a + 15 = 5(2a + 3)$
 10 & 15 both in the 5 times table
 $10a = 5 \times 2a$ $15 = 5 \times 3$

Always remember

Algebraic Notation

Algebra uses a shorthand system where variables (symbols) are represented by letters.

E.g. $a + a = 2a$

$2 \times b = 2b$

$c \times c = c^2$

$3d \times 2e = 6de$

Factorising Brackets

To factorise into one bracket, find the highest common factor for each term.

E.g. $4x + 10 = 2(2x + 5)$

Expanding Brackets

To expand one bracket:

make sure the term on the outside multiplies everything on the inside.

E.g. $4(2x - 3) = 8x - 12$

Term = $3a$

Expression = $5x + 2$

Equation = $5x - 3 = 47$

Formula = $C = \pi d$

Identity = $10x + 4 \equiv 2(5x + 2)$

Assessment style question

Assessment style question: Circle the correct words to complete each sentence:

(a) $x^2 + 3x = 16$ is an expression an equation a formula an identity

(b) $x^2 + 3x = 16$ is an expression an equation a formula an identity

(c) $(x + 3)^2 \equiv x^2 + 6x + 9$ is an expression an equation a formula an identity

Simplifying expressions (adding/subtracting)

- Can only simplify like terms.
- Be sure to include the sign before the term

e.g. $2a + 3b - a + 4b = a + 7b$

$2a - a = a$ $+3b + 4b = +7b$

Substitution and Formulae

Key vocabulary

Substitution

Formulae

Rearrange

Equation

BIDMAS

Picture perfect

I am think of a **number**. I **subtract 5** from it and then **divide the result by 4**.

The **answer is 7**. What number did I think of to start with?

Form an equation then Solve the equation

$$\frac{x-5}{4} = 7$$

$$\frac{x-5}{4} = 7$$

$$\times 4 \quad \times 4$$

$$x - 5 = 28$$

$$+5 \quad +5$$

$$x = 33$$

Solve this equation to find x:

$$6x = 13$$

$$\div 6 \quad \div 6$$

$$x = \frac{13}{6}$$

$$6$$

Make x the subject of the formula:

$$ax = b$$

$$\div a \quad \div a$$

$$x = \frac{b}{a}$$

$$a$$

Assessment style question

Work out the value of $d + (3e + f)^2$ when $d = 2$, $e = -3$ and $f = 1$.

Rearrange the formula $P = \frac{k}{j}$ to make k the subject of the formula.

Carl thinks of a number. He multiplies this by 3 then adds 23.
Liz thinks of a number and she adds 3, then she multiplies this by 5.
The number they chose and sums at the end are equal. What is the number they have picked?

Always remember

Substitution means putting numbers in place of letters to calculate the value of an **expression**.

For example, in the expression $2b^2c$, where $b = 4$ and $c = 3$, use the values of b and c to calculate the numerical value of the expression:

$$2b^2c = 2 \times b^2 \times c$$

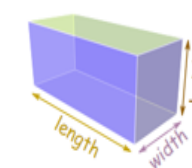
Formulae are created for something that is calculated often.

For instance, plumbers often apply a call out charge plus an hourly rate to their customers. Writing a formula for the total cost of a job would be useful for a plumber so that they could quickly calculate costs for their customers more easily. Once a formula is written, the plumber would only need to input how long the job would take in hours, and come up with a total cost to quote very easily.

A rule or fact written with mathematical symbols.

It usually has:

- an equals sign (=)
- two or more variables (x, y, etc)



Example: The formula for the volume of a box is

$$V = l \times w \times h$$

Which has these variables:

- V stands for volume,
- l for length,
- w for width,
- h for height,

When $l=10$, $w=5$ and $h=4$, then $V = 10 \times 5 \times 4 = 200$

Sequences

Key vocabulary

Sequence

Term

Rule

Term to term rule

Nth term

Arithmetic sequence

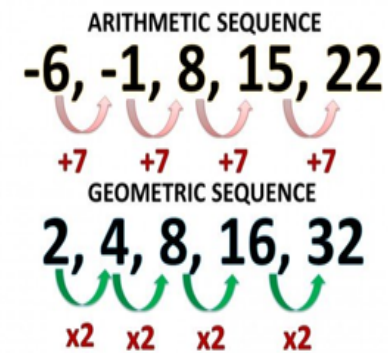
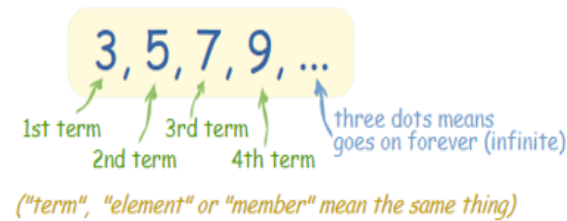
Geometric sequence

Triangular numbers

Fibonacci sequence

Picture perfect

Sequence:

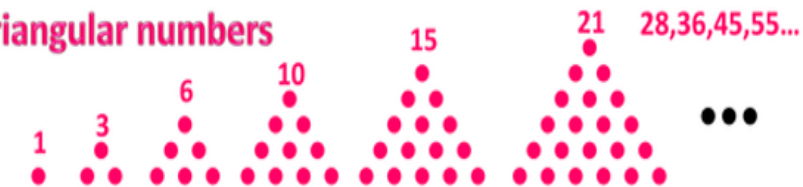


Always remember

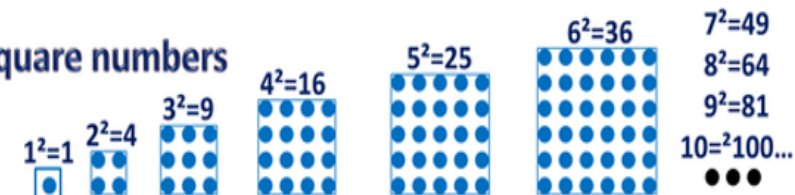
Fibonacci Sequence

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987 ...

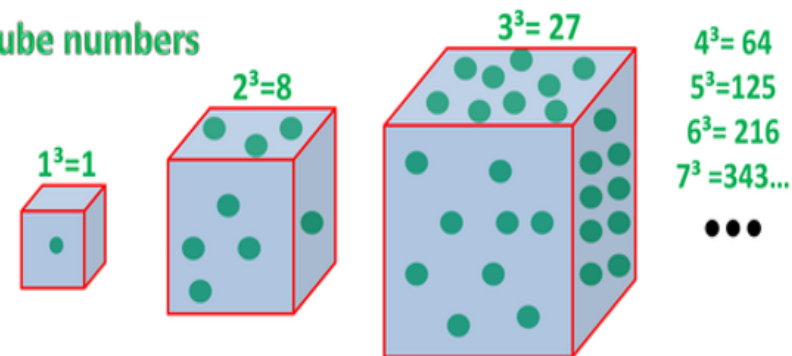
Triangular numbers



Square numbers



Cube numbers



Assessment style question

The n th term of a sequence is $2n^2$

(i) Find the 4th term of the sequence.

(ii) Is the number 400 a term of the sequence?

Give reasons for your answer.

The first five terms of an arithmetic sequence are

2 7 12 17 22

Write down, in terms of n , an expression for the n th term of this sequence.

Solving equations

Key vocabulary

Substitution
Formulae
Rearrange
Equation
BIDMAS
Inverse
Coefficient

Picture perfect

Left Side = Right Side

The equation is balanced

$$3(x + 1) = 2(x + 2)$$

$$\begin{array}{rcl} 3x + 3 & = & 2x + 4 \\ -2x & & -2x \\ \hline x + 3 & = & 4 \\ -3 & & -3 \\ \hline x & = & 1 \end{array}$$

Assessment style question

Hannah is n years old.
Her aunt Emily is three times older than Hannah.
Emily is 48 years old.
(a) Write down an equation for this information.
(b) Solve your equation to find how old Hannah is.

The sum of each row is given.
Find a , b , c and d .



a	a	a	a	24
a	a	b	b	28
b	c	c	c	29
a	b	c	d	31

Sam thinks of a number, n .
He multiplies his number by 7 and then adds 3 to the result.
His final answer is 45.
(a) Write down an equation for this information.
(b) Solve your equation to find the number, n .

Always remember

Solve this equation to find x :

$$\begin{array}{rcl} 6x & = & 13 \\ \div 6 & & \div 6 \\ \hline x & = & \frac{13}{6} \end{array}$$

Make x the subject of the formula:

$$\begin{array}{rcl} ax & = & b \\ \div a & & \div a \\ \hline x & = & \frac{b}{a} \end{array}$$

I am think of a **number**. I **subtract 5** from it and then **divide the result by 4**.
The **answer is 7**. What number did I think of to start with?

Form an equation then Solve the equation

$$\begin{array}{rcl} x - 5 & = & 7 \\ 4 & & \end{array}$$

$$\begin{array}{rcl} x - 5 & = & 7 \\ 4 & & \end{array}$$

$$\begin{array}{rcl} x4 & x4 & \\ x - 5 & = & 28 \\ +5 & +5 & \\ \hline x & = & 33 \end{array}$$

Inequalities

Key vocabulary

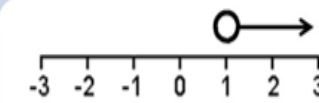
Less than
Less than or equal to
Greater than
Greater than or equal to
Represent on number line
Solve

Picture perfect

Inequality Symbols

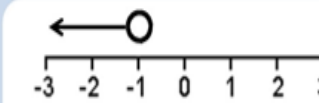
- $<$ – Less Than
- $>$ – Greater Than
- \leq – Less Than or Equal to
- \geq – Greater Than or Equal to

Always remember



$$x > 1$$

x is any number greater than 1
Examples: 2, 3, 4, 5...



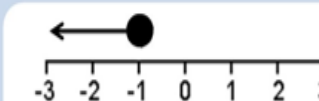
$$x < -1$$

x is any number less than -1
Examples: -2, -3, -4, -5...



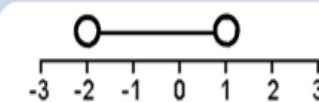
$$x \geq 1$$

x is any number greater than or equal to 1
Examples: 1, 2, 3, 4, 5...



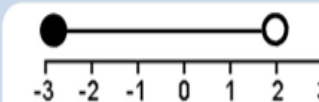
$$x \leq -1$$

x is any number less than or equal to -1
Examples: -1, -2, -3, -4, -5...



$$-2 < x < 1$$

x is any number greater than -2 and less than 1
Examples: -1 and 0 only



$$-3 < x \leq 2$$

x is any number greater than or equal to -3 and less than 2
Examples: -3, -2, -1, 0 and 1 only

Assessment style question

Solve the inequality

$$4x + 3 > 2(3x - 1)$$

Answer: _____ [3]

Choose the correct inequality that best describes each graph.

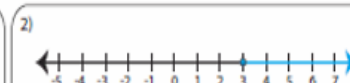


a) $x \leq 1 + \frac{6x}{5}$

b) $1 + \frac{6x}{5} > x$

c) $1 + \frac{6x}{5} < x$

d) $x \geq 1 + \frac{6x}{5}$



a) $15 < 3(4x - 7)$

b) $3(4x - 7) \leq 15$

c) $3(4x - 7) \geq 15$

d) $15 > 3(4x - 7)$

Coordinates & Linear Graphs

Key vocabulary

Coordinates - a set of value that show an exact position on a coordinate grid

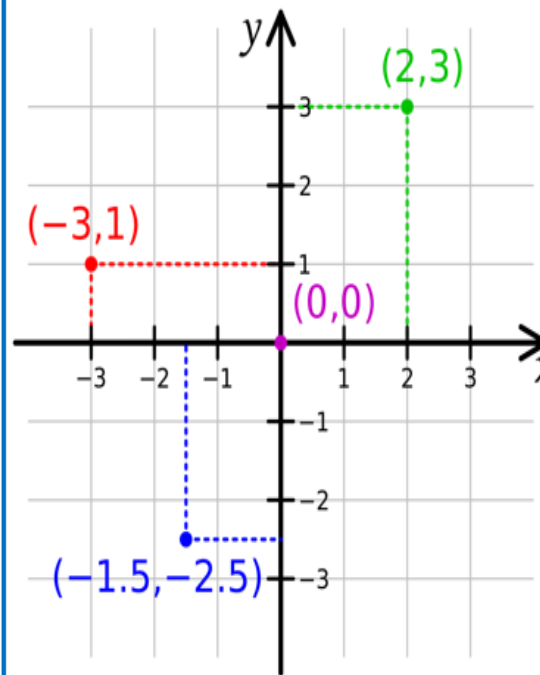
Linear equation - an equation, when plotted, makes a straight line

Gradient - the steepness of the line of a linear equation

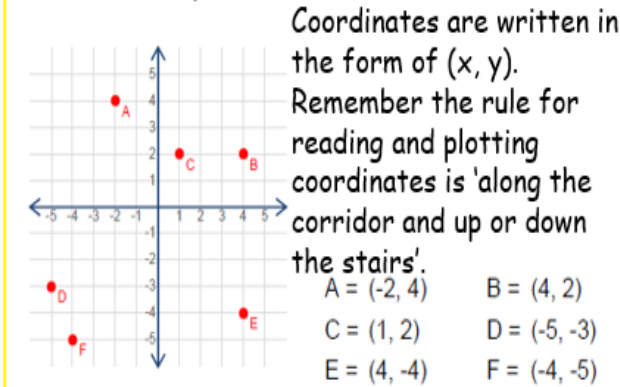
y-intercept - where the linear equation cuts the y-axis

Substitution - when you replace an unknown for a given value

Picture perfect



Reading and plotting coordinates

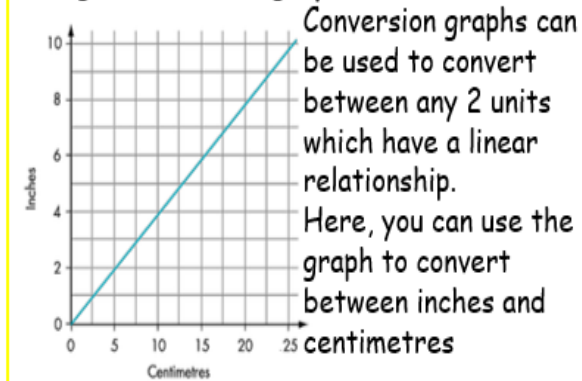


Drawing a graph to represent a linear equation

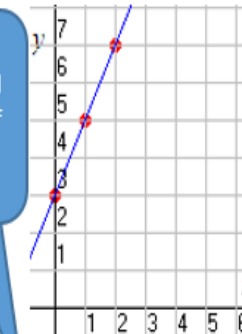
When you are asked to draw the line of a linear equation you follow these steps:

1. Complete a table of values by substituting in the value of x into the equation
2. Write the list of coordinates
3. Plot the coordinates
4. Draw a line through the all the coordinates

Using a conversion graph



This means 2 multiplied the value of x , then add on 3



Assessment style question

Question 1:

- (a) Plot the coordinates A $(-4, 1)$, B $(1, -2)$ and C $(2, 1)$
- (b) ABCD is a kite.
- (c) Plot D
- (d) Write down the coordinates of the point D.

Question 2:

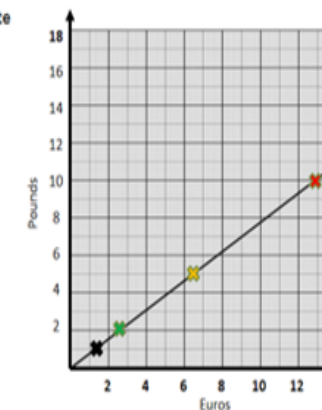
The distance between the points $(-3, -4)$ and $(q, 5)$ is 15. Find the possible values of q .

Drawing a conversion graph

You can plot known conversions on a graph to help you to convert other unknown amounts.

Can you use the graph to convert 10 Euros into Pounds?

Current exchange rate
 $\text{£}1 = \text{€}1.29$
 $\text{£}2 = \text{€}2.58$
 $\text{£}5 = \text{€}6.45$
 $\text{£}10 = \text{€}12.90$



Example

Complete the table of values for the equation $y = 2x + 3$ for the values of x from 0 to 2

X	0	1	2
y	$2 \times 0 + 3 = 3$	$2 \times 1 + 3 = 5$	$2 \times 2 + 3 = 7$

Coordinates are $(0, 3)$ $(1, 5)$ and $(2, 7)$

1. Energy Stores

Gravitational potential energy	Energy stored in an object that is raised above the ground
Kinetic energy	Energy stored in an object that is moving
Thermal energy	Energy stored or transferred as heat
Chemical energy	Energy stored in the bonds in molecules and compounds
Elastic potential energy	Energy stored in an object that is stretched or compressed

2. Calculating energy

Gravitational potential	$GPE = \text{mass} \times \text{gravitational field strength} \times \text{height}$ (J) (kg) (N/kg) (m)
Kinetic	$KE = \frac{1}{2} \times \text{mass} \times \text{velocity}^2$ *(velocity = speed) (J) (kg) (m/s)
Work done	Work done = force x distance (J) (N) (m)
Power	Power = Energy ÷ time OR Power = work done ÷ time (W) (J) (s) (W) (J) (s)

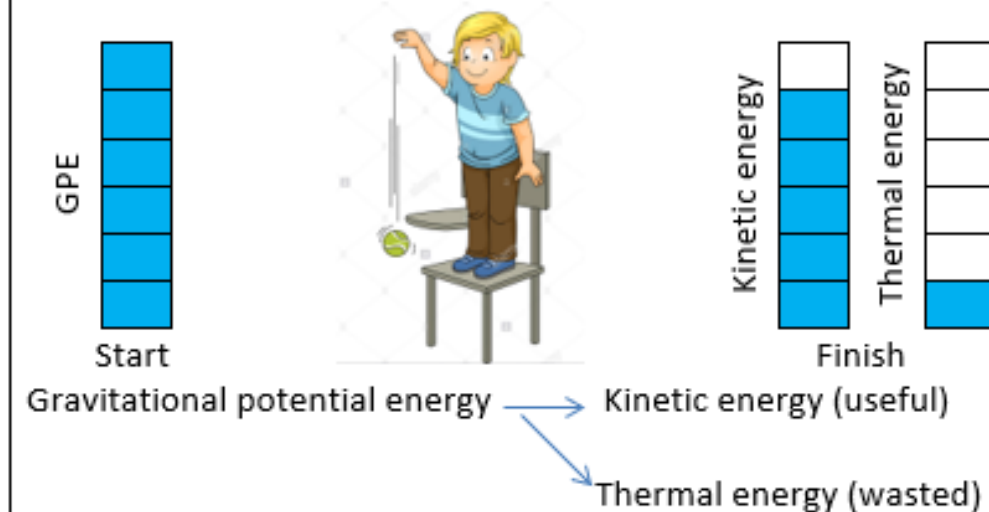
3. Units

Force	Newtons (N)
Power	Watts (W) OR kilowatts (kW)
Mass	Kilograms (kg)
Height	Metres (m)
Energy	Joules (J) OR kilojoules (kJ)
time	Seconds (s)

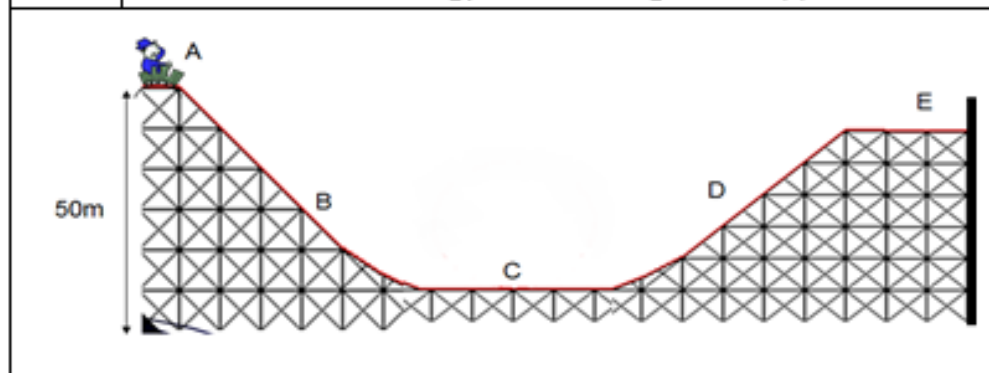
4. Conservation of energy and Energy transfers

The Law of Conservation of Energy states that energy can neither be created nor destroyed only transferred between stores.

Energy transfers in a ball falling



A	Has the most GPE
B	GPE is transferred to kinetic energy and thermal energy is dissipated to the environment. The carriage speeds up.
D	Kinetic energy is transferred to GPE and thermal energy is dissipated to the environment. The carriage slows down.
E	There is no kinetic energy as the carriage has stopped.



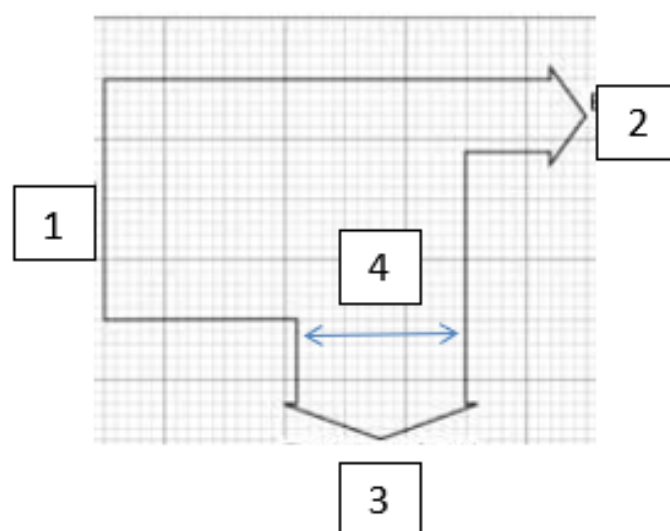
5. Efficiency

Efficiency = useful energy ÷ wasted energy

Or

Efficiency = (useful energy ÷ wasted energy) x 100

1	Energy input to the system
2	Useful energy output
3	Wasted energy output
4	Width of the bar indicates the amount of energy. On graph paper, each square would have a value of energy.



Challenge Questions

1	What is the GPE of a 60kg carriage on the roller coaster at 50m?
2	What would the maximum kinetic energy of the carriage be and why?
3	What would the maximum speed of the carriage be?
4	The actual speed of the carriage is 29m/s. Calculate the efficiency.

6. Generating electricity

Energy source	Advantages	Disadvantages
Fossil fuels	<ul style="list-style-type: none"> Low cost Easily transportable Reliable 	<ul style="list-style-type: none"> Non-renewable Produced CO₂ Produced SO₂ and NO_x
Wind	<ul style="list-style-type: none"> Renewable No fuel cost Produces no pollutants 	<ul style="list-style-type: none"> Cannot be used in high or no winds Visual pollution
Hydroelectric	<ul style="list-style-type: none"> Renewable Reliable Output easily controlled 	<ul style="list-style-type: none"> Destroys habitats to build reservoir when flooding land
Solar	<ul style="list-style-type: none"> Renewable No fuel cost Produces no pollutants 	<ul style="list-style-type: none"> Does not work at night Expensive to set up
Nuclear	<ul style="list-style-type: none"> High energy output for small mass of fuel Reliable 	<ul style="list-style-type: none"> Non-renewable Produces radioactive waste

7. Specific Heat Capacity

The specific heat capacity is the amount of energy needed to increase the temperature of a 1kg mass by 1°C

$$E = m \times c \times \theta$$

Energy (J) Mass (kg) Specific heat Capacity (J °C⁻¹ kg⁻¹) Change in temperature (°C)


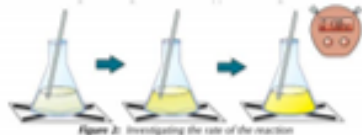
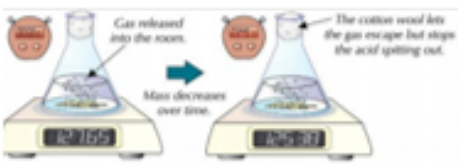


Science: Rate and extent of chemical reactions

1. Key Words

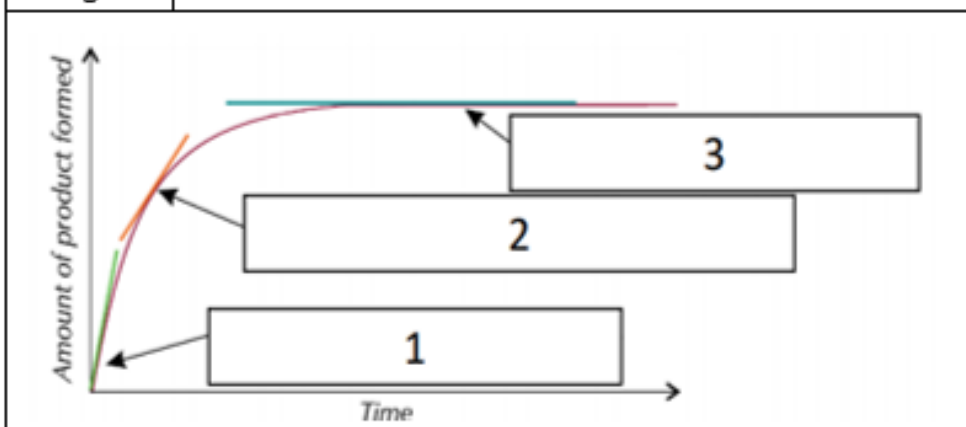
Rate of reaction	Amount of reactant <u>used</u> or product formed \div time
Collision theory	Idea that for a reaction to occur the particles <u>have to</u> hit each other with enough energy
Activation energy	The minimum energy needed for a collision to cause a reaction
Catalyst	A substance which speeds up a chemical reaction by lowering the activation energy
Reversible reaction	A chemical reaction that can go in either direction
Equilibrium	When the forwards and backwards reactions happen at the same rate

2. Ways to measure a rate of reaction

Volume of gas released	
Formation of a solid product (become opaque)	
Change in mass	

3. Calculating rates from graphs

1	Steep slope at the start, so a fast reaction
2	The slope becomes less steep, the reaction is slowing down
3	Flat line shows that the reaction has finished



4. Factors affecting the rate of reaction

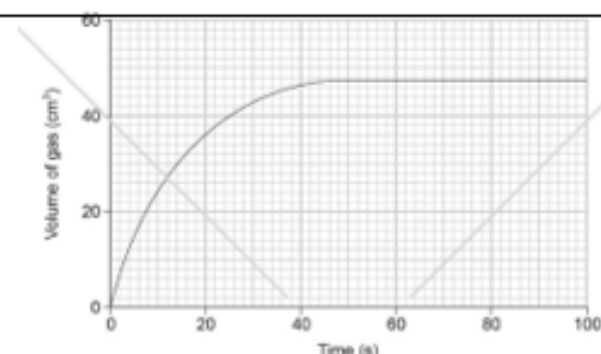
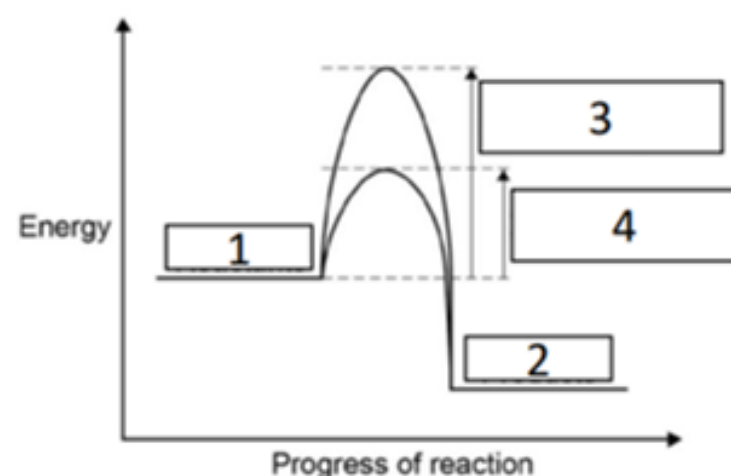
Factor	Change	Effect on rate	Reason
Temperature	Increase	Increase	The particles are moving faster so collide more often and with a greater proportion of successful collisions
Concentration	Increase	Increase	There are more particles so there are more frequent collisions
Surface area	Increase	Increase	There are more particles available so there are more collisions
Catalyst	Add	Increase	The lower activation energy means that more particles can successfully collide



Science: Rate and extent of chemical reactions

5. Catalysts

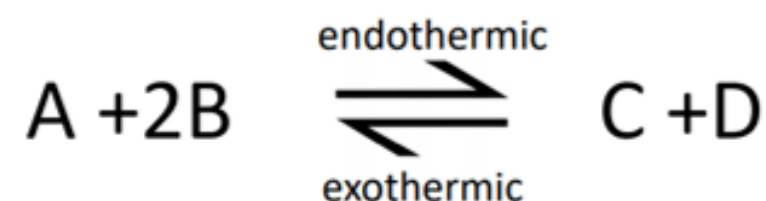
1	Reactants
2	Products
3	Activation energy without catalyst
4	Activation energy with catalyst



Challenge Questions

1	How long did it take for the reaction to finish?
2	Calculate the rate of reaction after 20 seconds.
3	Explain why the graph is a curve at the beginning.
4	Calculate, using the tangent method, the rate of reaction at 30 seconds.

6. The effect of changing the conditions of equilibrium (H)



Le Chatelier's principal: a reaction at equilibrium will act to oppose any changes to it

Condition	Change	Effect
Concentration	Increase A or B	Shifts to the right to increase the concentration of C + D
	Decrease A or B	Shifts to the left to increase the concentration of A + B
Temperature	Increase	Shifts right to favour the endothermic reactions, making more C + D
	Decrease	Shifts left to favour the exothermic reactions, making more A + B
Pressure	Increase	Shifts to the right side with the fewest moles so makes more C + D
	Decrease	Shifts to the left side with the most moles so <u>makes</u> more A+B

Key Vocabulary...



Computational Thinking	Thinking in a logical way.
Abstraction	Picking the important bits of information out of a problem.
Decomposition	Breaking a bigger problem into subtasks, making it easier to complete.
Algorithm	A step-by-step set of precise instructions
Linear Search	A searching algorithm that checks each item in a list until it finds what it is looking for. Can be very slow.
Binary Search	A searching algorithm that looks for an item in a sorted list. It works by comparing it with the middle value and deciding if it is higher or lower. It repeats this process until the item is found.
Bubble Sort	An algorithm used to sort out a list by comparing two values next to each other and swapping them over if needed.
Merge Sort	Divide and conquer algorithm where the list is split and then merged back together.
Insertion Sort	A sorting algorithm that move the item along a list until the item is put in the correct position in the list.
Sequence	Tasks that are carried out one after another.
Selection	A decision has to be made before the program flow can continue.
Iteration	Tasks are repeated in a loop.

Picture This...

Linear Search

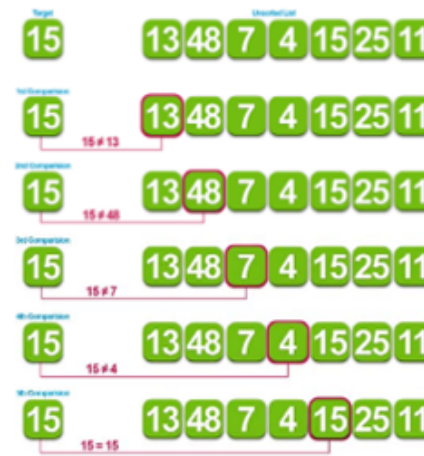


Figure 1 - Linear search example

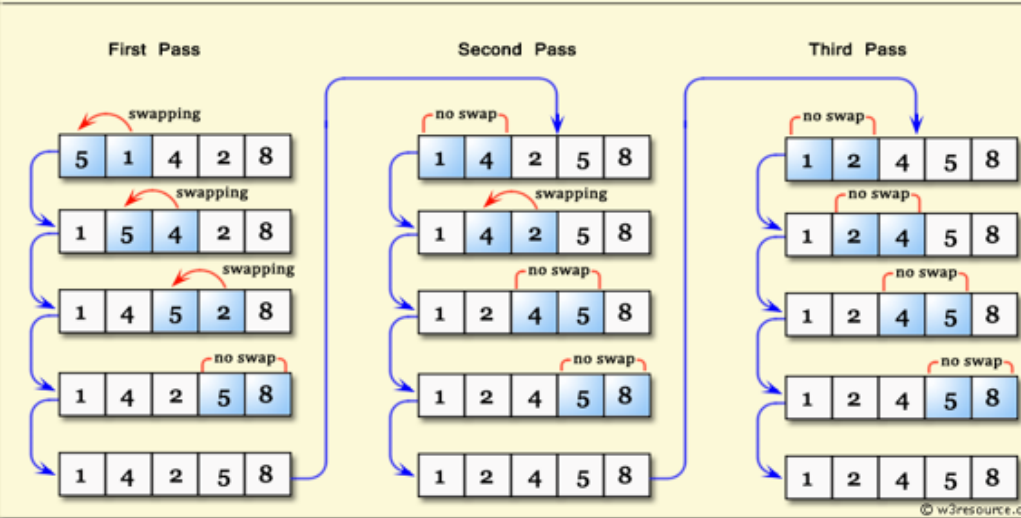
Binary Search



Figure 2 - Binary search example

Linear searches can be slower than a binary search if the item is further down the list as it will have to check through all of the items in the list to find the target.

Bubble Sorting




















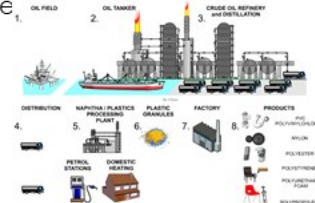
Bubble sorts check each item next to each other and then swap them if they are smaller. In a Bubble sort the largest number will always be at the end of the list. You may need to go through the list more than once – this is known as a Pass

Deep Learning

Sorted data is easier for a computer to work with. You can write this all of these algorithms out in Python or another high-level code on a computer to see how they work. There are a lot of YouTube tutorials available to watch and then you can code along with them.

Activity – Research what the four different types of Creative Commons license state that you can do with each license.

Key Vocabulary...		Picture This...		Remember - legislation
Ethical Issue	Something which might not be morally correct.	 <div> <div>Data should be obtained lawfully</div> <div>Data should only be used for specific purpose</div> <div>Data should not be excessive- only hold what is needed</div> </div>		<div>Computer Misuse Act(1990)</div> <p>Makes it illegal to.....</p> <ol style="list-style-type: none"> 1. Gain unauthorised access to computer systems such as files. 2. Steal material that you don't have access to. 3. Break into a computer system and deliberately destroy files.
Environmental Issue	How computers can affect the natural world through e-waste.	<div> <div>Data should be up to date</div> <div>Data Protection Act (2018)</div> <div>Data should not be kept longer than necessary</div> </div>		
Cultural issue	How different groups of people might be affected by an issue.	<div> <div>Data should not leave EU.</div> <div>Data must be kept secure so it can't be stolen.</div> <div>People are allowed to ask to see data held about them.</div> </div>		
Stakeholder	Someone has an interest in a business or issue.	<div>Creative Commons License</div> <p>Sometimes people who created work will allow others to use it under Creative Commons license. There are 4 different licenses</p> <div>     </div>		
Digital Divide	The gap between people who have access to technology and those who don't.			
No n-renewable resources	Resources that once used can't be used again.			
Computer Legislation	Rules that are set out to govern how computers are used.			
Data Protection Act (2018) GDPR – EU	A set of laws that controls how people's personal data is held.			
Freedom of Information Act (2000)	Allows members of the public to access data held about them from organisations.			
Computer Misuse Act(1990)	Laws which stop users using computers illegally such as hacking.			
Copyright, Designs and Patents Act (1988)	Law to protect the intellectual property. This stops someone's idea, such as a game design being stolen.			
Creative Commons License	A license which lets you use someone's work as long as they have put a CC license on the work.			
		<div>Questions</div> <ol style="list-style-type: none"> 1. Which law would protect against hacking? 2. Explain what is meant the digital divide and give an example. 3. Which legislation allows people to share and adapt other people's work? 4. What is the purpose of the Data Protection Act? 5. What is meant by the term stakeholder? 		<div>Deeper Learning...</div> <p>Computer technology is changing our lives as communication becomes more instant and more data is held about us. Social networks allow people to publish and upload thoughts, stories and images on a wider scale. Medical advances have happened too and we can monitor our bodies and transmit the data online. AI is now a common experience with driverless cars and automated technology being developed. Do you think that this anything we should worry about?</p> 
<div>Activity –Research what the four different types of Creative Commons license state that you can do with each license.</div>				

Key Vocabulary...		Picture This...		Tools & Equipment		
Aesthetics	How something looks including shape and colour.	LED		A light emitting diode provides a source of light. It is energy efficient, small, available in different colours and brightness and has a long lifespan.	Vacuum Former	
Accuracy	The quality or state of being correct or precise. Free from errors.	SWITCH		A component that joins and breaks part of a circuit to connect or isolate the supply of electricity.	Pillar Drill	
Thermoplastic	A type of plastic that can be re heated and shaped to make new products.	RESISTOR		A fixed value component that reduces the amount of electricity able to pass through part of the circuit. Made from a mixture of carbon (to conduct) and ceramic (to isolate).	Strip Heater	
Thermosetting	A thermosetting plastic is a plastic which becomes irreversibly hardened when heated and moulded into shape. Can not be recycled.	PCB		A printed circuit board mechanically supports and connects electrical components using conductive tracks.	Soldering Iron	
JIG	A jig is used to make sure that parts are made exactly the same, without the need for marking out. For example, when drilling through a block of wood with two holes in, it will make sure that the holes are drilled in the same place in each component.	USB LEAD		A USB lead (Universal Serial Bus) are used mostly to connect computers to peripheral devices such as cameras and printers, in our case, your lamp.	The BIG question..	
Target Market	To whom the product is aimed at or designed for.	Always Remember...		Deeper Learning...		
CAD/CAM		<p>Computer Aided Design – In school we use 2D Design, in the industry they use AutoCAD, we also use sketch Up for virtual model making.</p> <p>Computer Aided Manufacture – In school we manufacture products using a laser cutter and 3D printer. They also use laser cutters and 3D printers in industry but on a larger scale. They also use CNC milling machines and other computer controlled devices to manufacture different products.</p> 		<p>Plastics are made from oil which is a fossil fuel. We have to drill deep into the earth to extract the oil and this can cause disruption to wildlife, sea life and their habitats. The burning of crude oil to make plastic products, produces CO2 emissions, which pollutes the earth's atmosphere.</p> 		
Activity – Take some isometric grid paper home with you and practice drawing objects, that you can find around the house. Remember to bring your designs in to show your class mates.						

Time phrases

Present		Past		Future	
normalement	normally	hier	yesterday	demain	tomorrow
d'habitude	usually	Avant-hier	the day before yesterday	cet après-midi	this afternoon
tous les jours	every day	Ce matin	this morning	ce soir	tonight
de temps en temps	from time to time	hier soir	last night	le weekend prochain	next weekend
parfois / quelquefois	sometimes	la semaine dernière	last week	la semaine prochaine	next week
toutes les semaines	every week	le mois dernière	last month	le mois prochain	next month
tous les mois	every month	l'année dernière	last year	l'année prochaine	next year
chaque année	every year	samedi dernier	last Saturday	dans quelques années	In a few years
toujours	always	le weekend dernier	last weekend		
souvent	often	il y a longtemps	a long time ago		
jamais	never				

Question	
Quoi? Qu'est-ce que?	What?
Où?	Where?
Quand?	When?
Combien?	How much / How many?
Comment?	How?

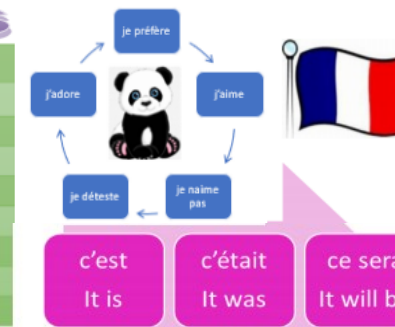
Quantifiers			
très	very	pas très	not very
assez	quite	complètement	completely
un peu	a bit	sérieusement	seriously
tellement	really	extrêmement	extremely
vraiment	really	certainement	certainly
ralement	really	plutôt	rarely

JUSTIFICATIONS	
parce que	because
car	because
comme	as
puisque	since
étant donné que	given that
ayant dit cela	having said that

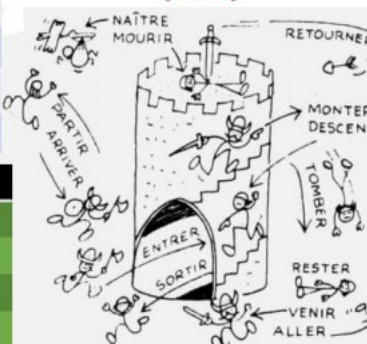
Connectives	
et	and
mais	but
ou	or
où	where
aussi	also
par exemple	for example
heureusement	luckily
malheureusement	unfortunately
par contre	on the other hand
pendant que	while
surtout	especially
cependant	however
d'abord	firstly
puis	then
ensuite	next
après	after
alors	then/so
finalement	finally
while	while

à (at)	à la piscine	à la maison	à la plage	à la campagne	à la montagne
au (at)	au collège	au bord de la mer	au centre sportif	au centre commercial	au cinéma
chez (in/to)	chez moi	chez mon ami	chez mes grandparents	chez mes copains	
dans (in)	dans le parc	dans le jardin			
en (in)	en Paris	en Madrid			

mon père (my dad)	ma mère (my mum)	ma famille (my family)	mes parents (my parents)	mes amis (my friends)	mes copains (my friends)
Tom et Jane					



Dr and Mrs Vandertramp (Être)



Positive	Negative
génial (great)	difficile (difficult)
amusant (funny)	ennuyeux (boring)
facile (easy)	bête (stupid)
intéressant (interesting)	nul (rubbish)
agréable (pleasant)	fatigant (tiring)
sympa (nice)	désagréable (unpleasant)
utile (useful)	affreux (awful)
passionnant (exciting)	mauvais (bad)



Present tense	ER	IR	RE
je	e	is	s
tu	es	is	s
il/elle	e	it	-
nous	ons	issons	ons
vous	ez	issez	ez
ils / elles	ent	issent	ent



Passé composé	AVOIR (present)	ÊTRE (present)	
j'ai or je	j'ai	je suis	-ER - é
tu	as	es	-IR - i
il/elle	a	est	-RE - u
nous	avons	sommes	
vous	avez	êtes	
ils / elles	ont	sont	



Imparfait	ER / IR / RE
je	ais
tu	ais
il/elle	ait
nous	ions
vous	iez
ils / elles	aient

PRESENT	PAST	FUTURE
je joue	j'ai joué	je vais jouer
je regarde	j'ai regardé	je vais regarder
je visite	j'ai visité	je vais visiter
je mange	j'ai mangé	je vais manger
j'écoute	j'ai écouté	je vais écouter
je fais	j'ai fait	je vais faire
je vais	je suis allé / allée	je vais aller

Key Vocabulary...

CLAY	Clay comes from the ground – usually in areas where streams or rivers once flowed.
KILN	A kiln is a giant oven which is used for the process of transforming clay in its malleable form to a hard piece of ceramic.
FIRE	The firing process is often around 1000 degrees and is what turns the clay from soft clay into hard ceramic.

Always remember...



PICASSO'S AFRICAN PERIOD	Picasso's African Period, which lasted from 1906 to 1909, was the period when Pablo Picasso painted in a style which was strongly influenced by African sculpture, particularly traditional African masks and art of Ancient Egypt.
AFRICAN PATTERN	Africa has a wealth of patterns made up of shapes, colours, textures and symbols that have been repeated to create a bold arrangement.



Picture This...



Deeper Learning...



What is traditional African Art?

African art describes the modern and historical paintings, sculptures, installations and other visual culture from native or indigenous Africans and the African continent.

African art includes ancient art, Islamic art of West Africa, the Christian art of East Africa and the ritualistic art of these and other regions.

African Art includes **media** such as: sculpture, painting, pottery, rock art, textiles and masks.

African art is traditionally known for being made up of warm earthy tones, such as oranges, reds and yellows. The use of black and green is also prominent.

The Big Question...

NEXT STEPS:

In your opinion, why have the traditions of African art stood the test of time?

Activity: - Watch this video to help generate ideas before creating your own clay mask - <https://www.youtube.com/watch?v=L4-4QOrAo-k>

CULTURES & CUISINES



The cuisine of a country is influenced by many factors. These include:

- Religion
- Climate
- Terrain/Geography
- Availability of imported foods
- Migration/immigration
- Culture
- Economy/wages/wealth

Wales



Ingredients:
Caerphilly Cheese, Lamb, Salmon

Dishes:
Cawl, Faggots, Welsh Rarebit

Scotland



Ingredients:
Salmon, Oats, Raspberries

Dishes:
Porridge, Haggis, Cullen Skink

France



Ingredients:
Foie Gras, Escargot, Cheese

Dishes:
Pate, Bouillabaisse, coq au vin



Spain



Ingredients:
Oranges, Chorizo, Olive oil

Dishes:
Tapas, Gazpacho, Paella



Italy



Ingredients:
Veal, Sardines, Parmesan, Mozzarella

Dishes:
Pizza, Ravioli, Focaccia, tirimisu

Mexico



Ingredients:
Bananas, pineapple, beef, chocolate

Dishes:
Ceviche, quesadilla, empanada

India



Ingredients:
Chilli, garlic, ginger, mutton, paneer

Dishes:
Samosas, Dhal, Chutneys, Saag Aloo

China



Ingredients:
Lychee, ginger, rice, noodles

Dishes:
Dim sum, chow Mein, Peking duck

Japan



Ingredients:
Rice, udon noodles, soy sauce

Dishes:
Sushi, katsu curry, gyoza, teriyaki



England



Ingredients:
Apples, Potato, Beef

Dishes:
Shepherds Pie, Roast Beef, Scones

Ireland



Ingredients:
Potatoes, Bacon, Cabbage

Dishes:
Irish Stew, Soda Bread, Colcannon

Caribbean



Ingredients:
Okra, plantain, goat, coconut

Dishes:
Salt cod, metagee, curried goat



USA



Ingredients:
Beef, peanuts, Pumpkins, blueberries

Dishes:
Chowder, Jambalaya, Meatloaf

Russia



Ingredients:
Beetroot, rye, caviar, potatoes

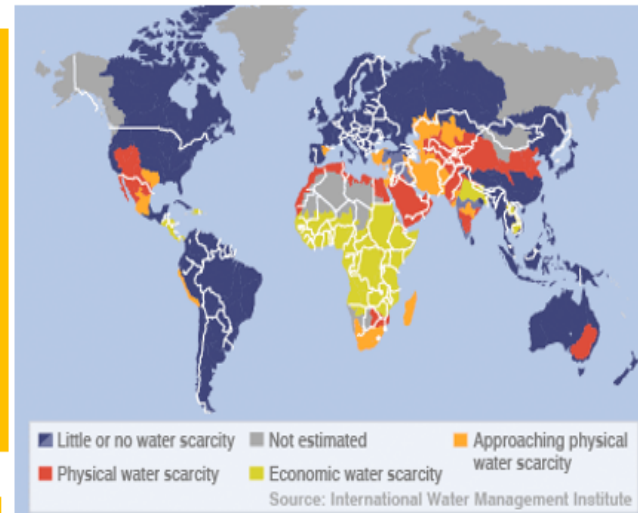
Dishes:
Borsch, Pelmeni, Blinis,

Subject: Geography : Yr9 Topic: Resources

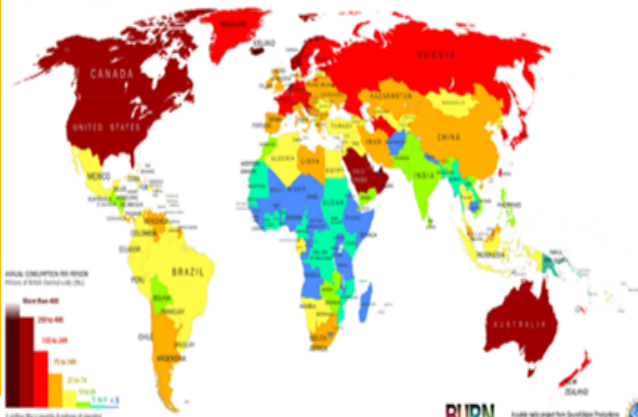
What are Resources?	
Key term	Definition
Resources	Materials that have value for people. They may be needed for basic survival e.g. water, or appreciated as something that improves quality of life e.g. coffee.
Resource management	The control and monitoring of resources so they don't become depleted or exhausted.
Surplus	When there is more of a resource than is needed to meet demand.
Deficit	When there is not enough of a resource to meet demand.

Project:
Research how the demand for food, water or energy is creating a challenge within the UK. Explain the challenge and what solutions are being proposed to solve it. Which do you think is the best solution? Justify your answer fully.

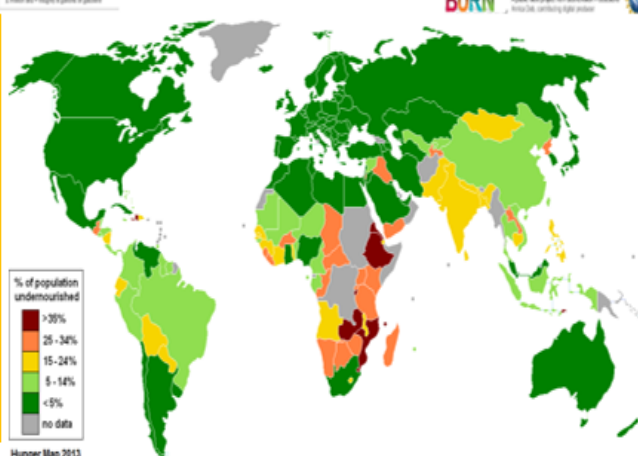
Distribution of water scarcity



Distribution of Energy Used



Distribution of malnourishment



Changing demand for food in the UK creates opportunities and challenges

<p>The growing demand for high value food exports from LICs and all year demands for seasonal food and organic produce.</p>	<ul style="list-style-type: none"> Food used to be seasonally and locally sourced. Now we eat globally sourced foods all year. In 2013 47% of UK food was imported. More disposable income has led to an increased demand for greater quantities and wider choice. Not all foods can be grown the UK, and some foods can only be grown at certain times e.g. strawberries in July and August. High quality products are five times the price of similar products e.g. Madagascan vanilla, gourmet coffee. Positive impacts : Jobs and wages for those in LICs, more tax income leads to a better quality of life. Negative impacts – less land for locals to farm for themselves, high water use and exposure to chemicals (pesticides and fertilisers). Organic – no pesticides or fertilisers used. Since the 1990s there has been an increase in demand. Now worth £2 billion a year in the UK.
<p>Larger carbon footprints due to the increased number of food miles travelled.</p>	<ul style="list-style-type: none"> Food can be grown more cheaply elsewhere. Production and transport create a carbon footprint. 17% of the UK's carbon footprint is due to food. Tomatoes have less of a carbon footprint being grown in Spain and imported to the UK than if we grew them in the UK where greenhouses would have to be heated. Annual food miles travelled by UK food imports is 18.8 billion miles. 68% of food imported to the UK is from within the EU, 32% from the rest of the world. UK are now encouraging buying local and having an allotment.
<p>A trend towards agribusiness.</p>	<ul style="list-style-type: none"> Agribusiness is a farm run as a business with the main aim being profit. Agribusiness has significant impacts on the environment as they are associated with heavy use of pesticides and fertilizers leading to reduction in wildlife and eutrophication. East Anglia has a lot of agribusinesses.

The significance of food, water and energy to economic and social well being

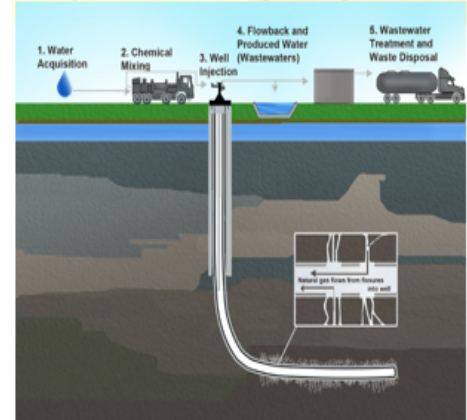
<p>Water food and energy are key for human wellbeing. All lead to social and economic benefits, which all increase the standard of living and quality of life.</p>	
Food	<ul style="list-style-type: none"> Calories provide energy. Availability of food depends on climate, soil and level of technology. Malnourishment leads to disease and death. In children it can lead to underperforming at school which decreases economic wellbeing in life. In adults they will be less productive (less able to work). Globally more than 1 billion people are malnourished. 2 billion are undernourished (poor diet). Obesity is an issue in some areas, mainly HICs.
Water	<ul style="list-style-type: none"> Used for survival, washing, food production, industry. Clean, safe water enables development and allows people to break free from the cycle of poverty. Globally 2 billion people drink from contaminated water sources. Over 500,000 people a year die because of diarrhoeal diseases and linked to contaminated water supplies.
Energy	<ul style="list-style-type: none"> Traditionally we get energy from oil, coal and wood. Many different sources are generated by changing technology. Used for electricity production, heating, transport and for water supply (e.g. wells). Supports industrialisation and development.

Global inequalities in the supply and consumption of resources

Food	<ul style="list-style-type: none"> Average UK calorie consumption is 3200 calories per person per day. Average calorie consumption in Mali is 2590 calories per person per day. Areas of greatest population growth have highest levels of undernourishment. Demand depends on changing diets and increasing population. Supply depends on climate, soil and level of technology.
Water	<ul style="list-style-type: none"> Fresh water is unequally distributed. Water footprint is the amount of water used per day. Global average is 1240 litres per day Bangladesh is 896 litres per day, USA is 2483 litres per day. Water scarcity (where demand is greater than supply) can be physical e.g. reduction in rainfall or economic e.g. lack of money to enable access to water. 1 in 5 (more than 1.2 billion people) live in areas of water scarcity. 1 in 3 (2.4 billion people) have no access to clean drinking water.
Energy	<ul style="list-style-type: none"> The richest 13% of people globally use 50% of the world's energy. The poorest 13% of people globally use 4% of the world's energy. Countries import and export energy. Some countries do not have their own sources of energy.

Fracking – Opportunities and Challenges

<p>Opportunities</p> <ul style="list-style-type: none"> Shale gas is readily available in UK. Will act as a bridging fuel until alternative technologies are developed. Increased cost of fuel makes fracking now affordable. 	<p>Challenges</p> <ul style="list-style-type: none"> Contaminated water is pumped back into the ground and can affect water supplies. Fracking uses a lot of energy. 3% of gas extracted is lost to atmosphere; this is methane, a greenhouse gas.
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Key Vocabulary...

Suffrage	The right to vote in elections.
Suffragettes	Women who organised protest in order to get the vote.
Reparations	The action of making amends for a wrong one has done, by providing payment or other assistance to those who have been wronged.
General Strike	A strike by workers in all/most industries.
Economy	The state of a country in terms of production (making goods), consumption (buying goods) and the supply of money.
Dictator	A ruler with total power over a country.
Democracy	A system of government where people exercise power through voting
Appeasement	Appeasement in an international context is a policy of making concessions to an aggressive power in order to avoid conflict.

The General Strike (1926)

The strike was called by the TUC (Trade Union Congress – an organization that represents the rights and interests of workers) for one minute to midnight on 3 May, 1926. For the previous two days, some one million coal miners had been locked out of their mines after a dispute with the owners who wanted them to work longer hours for less money. In solidarity, huge numbers from other industries stayed off work, including bus, rail and dock workers, as well as people with printing, gas, electricity, building, iron, steel and chemical jobs. The aim was to force the government to act to prevent mine owners reducing miners' wages by 13% and increasing their shifts from seven to eight hours. The industrial action came against a backdrop of tough economic times following the First World War and a growing fear of communism

Treaty of Versailles

The Treaty of Versailles was a peace treaty signed on 28th June 1919, exactly five years after the assassination of Archduke Franz Ferdinand. It officially brought an end to WWI. However, the Germans were not invited to the negotiations but were forced to sign the treaty – known as forced peace or 'diktat'. We remember the terms of the treaty and the things that Germany had to agree to/give up with the acronym – LAMB.

Land:
Germany lost 13% of its land all of its empire



Army:
100,00 men/no air force/
6 battleships

Money:
Had to pay £6.6bn in war damages (reparations)
Guilt'

Blame:
Had to sign the 'War
clause and accept blame
for starting WWI

Important People



Benito Mussolini – Ruled Italy from 1922 – 1943. He became dictator in 1925.



Joseph Stalin – Revolutionary Soviet born in Georgia. He led the Soviet Union (Russia) from the mid 1920s – 1953.



Adolf Hitler – Born in Austria, fought for Germany in WWI and became leader in of the Nazi party in 1921. He became chancellor of Germany in 1933 and dictator by 1934. He led Germany until the end of WWII in 1945.



Neville Chamberlain – Conservative politician and Prime Minister from 1937–1940. Remembered for the policy of appeasement towards Germany.

Wall St Crash 1929

- Ending of the 'boom' of the 1920s
- Lower land prices
- Too many goods produced and not enough people wealthy enough to buy them.
- Too much food – prices went down.
- Banks did not enough money when people started to withdraw their savings.
- 16 million shares were sold in one day on the New York Market (October 1929) and led to the stock market crashing.
- This in turn led to the Great Depression of the 1930s

The Depression

- America had lent huge sums of money to European countries. When the stock market collapsed, they suddenly recalled those loans. This had a devastating impact on the European economy.
- The collapse of European banks caused a general world financial crisis.
- Unemployment – 13 million people were out of work.
- Industrial production dropped by 45 per cent between 1929 and 1932.
- House-building fell by 80 per cent between 1929 and 1932.
- The entire American banking system reached the brink of collapse. From 1929 to 1932, 5,000 banks went out of business.
- These effects were mirrored in Britain and Europe.

Activity – Write a letter to the Prime Minister in 1925 arguing that women should have equal voting rights to men. Remember to use persuasive language

Key Vocabulary...

Blitzkrieg	An intense military campaign intended to bring about a swift victory
Invasion	An instance of invading a country or region with an armed force.
Evacuation	An action of removing a person from a place of danger. In WWII this involved moving children from large towns and cities to the countryside to avoid German bombing
Home Front	Activities of a nation when the armed forces are away at war.
The Blitz	German bombing campaign against Britain in 1940/41. The main targets were large towns, cities and ports. London was the worst hit city in Britain.
Stalingrad	City named after the Soviet leader in South-Western Russia and the site of the biggest battle of WW2.
Concentration Camp	A place with large numbers of people usually occupied by political prisoners.
VE-Day	8 th May 1945, the date of the Allied victory over Germany.

Important People



Winston Churchill - British politician, army officer and writer. He was Prime Minister during WWII leading Britain to victory.



Heinrich Himmler - Was leader of the SS (Protection Squad) and a leading Nazi. He was the key individual behind the design and implementation Holocaust



Key Battles and Events of WWII



Operation Barbarossa

In June 1941, Hitler invaded Russia, known as Operation Barbarossa. This brought Russia back into the war, this time against Germany. The failure of Operation Barbarossa was the first major German defeat

In January 1943, the Russians defeated the Nazis at the Battle of Stalingrad.

Evacuation of Dunkirk

Theatre of War: France

Dates: 26 May to 4 June 1940

Location: Dunkirk

Outcome: Operation Dynamo, the evacuation of around 350,000 British, French and Belgian troops from Dunkirk, enabled the Allies to continue the war and was a major boost to British morale.

Pearl Harbour

On Sunday 7 December 1941, the first of two waves of Japanese aircraft began their deadly attack on the US Pacific Fleet, moored at Pearl Harbor on the Pacific island of Oahu. Within two hours, five battleships had been sunk, another 16 damaged, and 188 aircraft destroyed. Only chance saved three US aircraft carriers, usually stationed at Pearl Harbor but assigned elsewhere on the day. The attacks killed under 100 Japanese but over 2,400 Americans, with another 1,178 injured. A day later on 8th December, The United States formally entered WWII

Battle of the Atlantic

Dates: 1939 to 1943

Location: Atlantic Ocean

Outcome: The Germans put a halt to U-boat operations in the Atlantic on 23 May 1943. The term 'Battle of the Atlantic' was coined by Winston Churchill to describe the struggle by the Allies to secure shipping routes across the Atlantic. The Allies' main objectives were to blockade the Axis powers (limiting productivity and diminishing morale), to secure their own shipping routes.

D-Day

During World War II (1939-1945), the Battle of Normandy, which lasted from June 1944 to August 1944, resulted in the Allied liberation of Western Europe from Nazi Germany's control. Codenamed Operation Overlord, the battle began on June 6, 1944, also known as D-Day, when some 156,000 American, British and Canadian forces landed on five beaches along a 50-mile stretch of the heavily fortified coast of France's Normandy region. The invasion was one of the largest amphibious military assaults in history and required extensive planning.

Battle of Britain

Theatre of War: United Kingdom

Dates: June to September 1940

Location: Britain - the skies above the Southern Counties and the Channel

Outcome: British victory, forcing Hitler to postpone indefinitely his plans to invade England
Note: The Battle of Britain marked the first major use of radar, which strengthened British defensive capabilities enormously and was a significant contributor to eventual victory in the Low Countries

The Holocaust

After the outbreak of World War Two in 1939, the Nazis stepped up the persecution of the Jewish people: They were herded into overcrowded 'ghettos'. After 1941, following the invasion of the Soviet Union, Nazi death-squads, called 'Einsatzgruppen', murdered more than a million Jewish people in Eastern Europe. In 1942, a Nazi conference at Wannsee decided on the 'Final Solution' - the Jewish people were to be taken to camps such as Auschwitz and gassed. An estimated 6 million Jewish people died during the Holocaust.

Activity - Write a letter back to your home town/city from the point-of-view of an evacuee. Remember you had probably never left your home town/city before and may never have seen the countryside before..

Key Vocabulary...		The British Values and Some Other Rights		Jobs in Justice	
Laws	Rules which are set by the government that every single person must follow.	Democracy	The idea that the people should be able to collectively choose their leaders.	Police Officer	A person appointed to investigate crimes and protect the public from criminals
Legislation	Any decision made by the government.	The Rule of Law	The idea that all people should follow the law and be treated equally by the law.	Justice Minister	The person in government in charge of the entire criminal justice system.
Enforcement	The act of making people follow the laws and stopping the people who are breaking them from continuing.	Individual Liberty	The idea that people should be free to choose their own path in life.	Judge	The person in charge of a court an who decides the sentence.
Crime	Any action which is against the law.	Mutual Respect and Tolerance	The idea that no one should be mistreated based on their race, gender, religion, disability or any other difference.	Solicitor	A legal expert who advises someone accused of a crime to help them defend themselves.
Punishment	Anything done to or taken from a person as a penalty for breaking a rule or the law.	Freedom of Speech	The idea that people should be free to express themselves and their views without fear of punishment.	Barrister	A legal expert who argues in court.
Criminal	A person who breaks the law.	The Right to Protest unfair Treatment	Within certain rules, UK citizens are legally allowed to protest against treatment or rules that they deem unfair.	Juror	An ordinary person who is selected randomly to sit on a jury and decide on the guilt of the accused.
Rehabilitation	The idea that a criminal can be helped to make better choices in the future and therefore to not commit crimes.	Human Rights	The basic rights which are considered to be common to all people rather than having to be earned.		
Court	The place where a judge and jury decide the innocence or guilt of a person accused of a crime.				
Trial	The name of the event in a court in which the innocence or guilt is decided of a person accused of a crime.				
Police	The organisation employed by the government to investigate crimes and to protect the public.				

The Big Idea		Always Remember...		Deeper Learning...	
<p>In order to have a civilized society there has to be a way of ordinary, honest people to protect themselves from people want to cause others harm. In most countries in the world, this takes the form of a criminal justice system, which uses a police force to catch criminals and a system of courts to find out who is guilty and punish them, prisons are common throughout the world. It costs a huge amount of money to keep people in prison, and in many causes, criminals are later released and go on to commit crimes again. One solution favoured by many is to execute serious criminals, reducing the cost and protecting people from them forever. But is this the right thing to do?</p>		<ul style="list-style-type: none"> Religions affect our lives even if you don't have a religious belief. Every country has crimes and criminals. For countries like the UK, which has a population of over 66 million, there are hundreds of thousands of criminals. It costs a huge amount of money to keep people locking away in prison, and even more money to rehabilitate them whilst they are there. Religious ideas from Christianity, Islam, Judaism as well as many other religions influence the way people feel about the treatment of criminals, especially corporal and capital punishment. The UK abolished the death penalty of 40 years and does not execute people for their crimes anymore. 		<p>State three crimes and write one sentence to say what each crime is.</p> <p>Describe the way the police help to keep us safe.</p> <p>Explain three important features of s trial in a court when someone is accused of committing a crime.</p> <p>Explain different punishments used for criminals in the UK and the sort of crime each is used for.</p> <p>'The UK tries to rehabilitate criminals rather than simply punishing them'. How far do you agree with this statement?</p>	

Activity - Research a famous criminal and their trial and produce a fact-file about them, and the evidence used to convict them.

Page 22

<p><u>Types of venue:</u></p> <ul style="list-style-type: none"> • <i>Small and medium local venues</i> <ul style="list-style-type: none"> • Pub • School stage • Small theatre • <i>Large multi-use spaces</i> <ul style="list-style-type: none"> • Sports' arena • West end theatre • Outdoor festival 		<p><u>Marketing and distribution:</u></p> <ul style="list-style-type: none"> • <i>Marketing</i> <ul style="list-style-type: none"> • The action of promoting and selling a product • <i>Distribution</i> <ul style="list-style-type: none"> • The movement of goods (CDs) from the source (record label) through a distribution channel (iTunes, HMV) right up to the customer 	
<p><u>Unions and Trade Bodies:</u></p> <ul style="list-style-type: none"> • <i>MU (Musicians' Union)</i> • <i>Equity</i> • <i>BECTU (Broadcast Entertainment Cinematograph Theatre Union)</i> • <i>MPG (Music Producers Guild)</i> • <i>APRS (Association of Professional Recording Services)</i> • <i>PLASA (Professional Lighting and Sound Association)</i> 		<p><u>Health, safety and security at venues:</u></p> <ul style="list-style-type: none"> • <i>Heating, lighting and ventilation</i> • <i>Electrical equipment</i> • <i>Toilets and drinking water clean</i> • <i>First aid and emergency exits</i> • <i>Obstacles appropriately lit/indicated</i> • <i>Adequate parking and parking arrangements</i> • <i>Flow of people in and out of venue</i> • <i>Secure ramps/stage scaffolding</i> 	
<p><u>Service companies and agencies:</u></p> <ul style="list-style-type: none"> • <i>PRS (Performing Rights Society)</i> <ul style="list-style-type: none"> • Licenses the composer's copyright for public performances of your songs (broadcast, live, recorded). • <i>MCPS (Mechanical Copyright Protection Society)</i> <ul style="list-style-type: none"> • Licenses the composer's copyright (royalties) for sound recordings (i.e. CD, ringtone). It will be in physical format (i.e. digital). • <i>PPL Licensing (Phonographic Performance Limited)</i> <ul style="list-style-type: none"> • Licenses the right to perform sound recordings and collects royalties for record companies and performers on recordings. 		<p><u>Promoters:</u></p> <p>Activity that supports (marketing and promotion) and encourages (publicity) a product for public awareness (i.e. live events). Promoters:</p> <ul style="list-style-type: none"> • <i>Secure a venue for a show</i> • <i>Promote the show (media, posters)</i> • <i>Work with the artist to make sure all needs are covered (PA, effects)</i> • <i>Cover the venue costs and costs of promotion (taking a percentage)</i> • <i>Earn an agreed-to fee or royalties</i> 	
<p><u>Music publishing:</u></p> <p>Usually linked with printed music. The business of music publishing is concerned with developing, protecting and valuing music. They look after the royalties to a composer's work.</p> <ul style="list-style-type: none"> • <i>Major publishing companies</i> • <i>Self-publishing</i> 			

YEAR 9 - TERM TWO - KNOWLEDGE ORGANISER – PERFORMING ARTS

Types of microphone:

- **Condenser**
 - Very sensitive – breaks easily
 - Used for acoustic instruments and recording vocals



- **Dynamic**
 - Very robust – hard to break
 - Use mainly for stage and live performances



Types of effects:

- **Compression** – regulates the loudness of the track
- **Reverb** – recreates sound echo of different room sizes
- **EQ** – filtering the frequency range of the track

Copyright law:

The **law** gives the creators of literary, dramatic, musical, artistic works, sound recordings, broadcasts, films and typographical arrangement of published editions, rights to control the ways in which their material may be used.

In order for musicians to legally cover songs for their own benefit, they first need to obtain a license.

Promoting practice:

Promotion is a part of marketing. Music is promoted using a variety of techniques and tools that constantly change and develop into newer and fresher ideas.

Musicians have to consider what strategies are used in the music industry at the moment and why some promotional strategies work whilst others fail.

Types of lead:

- **XLR**
 - Used primarily for microphones
- **Jack lead**
 - Used primarily for instruments



Subject Knowledge Organiser

Badminton – Rules, Scoring & Officials

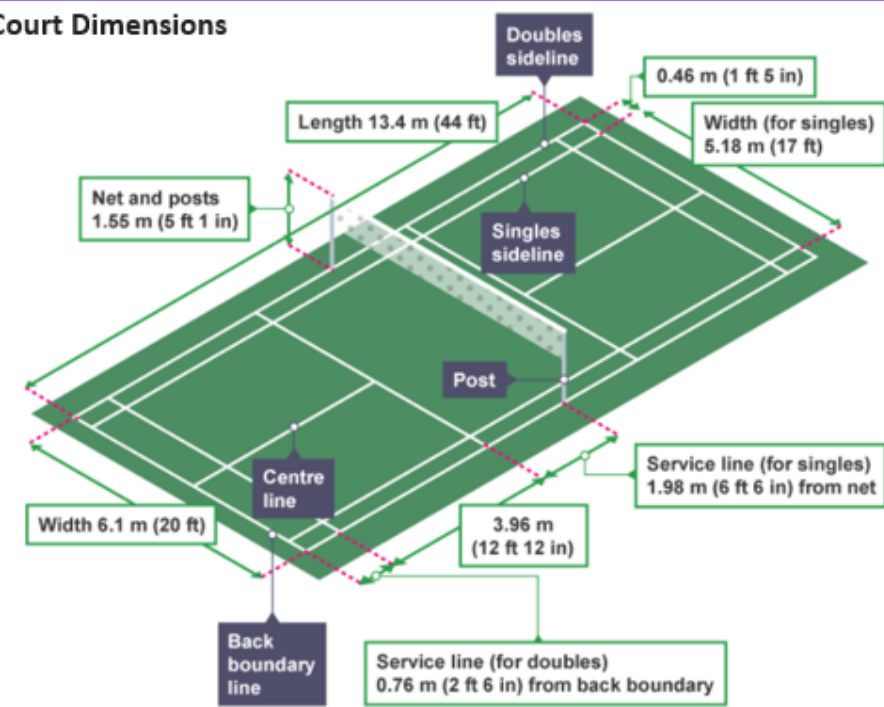
Rules

- ☐ A match consists of the best of three games of 21 points.
- ☐ The player/pair winning a rally adds a point to its score.
- ☐ At 20-all, the player/pair which first gains a 2-point lead wins that game.
- ☐ At 29-all, the side scoring the 30th point wins that game.
- ☐ The player/pair winning a game serves first in the next game.
- ☐ A badminton match can be played by two opposing players (singles) or four opposing players (doubles).
- ☐ A competitive match must be played indoors utilising the official court dimensions.
- ☐ A point is scored when the shuttlecock lands inside the opponent's court or if a returned shuttlecock hits the net or lands outside of the court the player will lose the point.
- ☐ At the start of the rally, the server and receiver stand in diagonally opposite service courts.
- ☐ A legal serve must be hit diagonally over the net and across the court.
- ☐ A badminton serve must be hit underarm and below the server's waist height with the racquet shaft pointing downwards, the shuttlecock is not allowed to bounce. After a point is won, the players will move to the opposite serving stations for the next point.
- ☐ The rules do not allow second serves.
- ☐ During a point a player can return the shuttlecock from inside and outside of the court.
- ☐ A player is not able to touch the net with any part of their body or racket.
- ☐ A player must not deliberately distract their opponent.
- ☐ A player is not able to hit the shuttlecock twice.
- ☐ A 'let' may be called by the referee if an unforeseen or accidental issue arises.
- ☐ A game must include two rest periods. These are a 90-second rest after the first game and a 5-minute rest after the second game.

Always remember: If yours or your opponents score is even you serve/receive from the right hand side, if it is odd you serve/receive from the left.

Always remember: serve, return, clear, flick, serve, drop shot, smash shot, drive shot, backhand, forehand, service line, tram lines, base line, net, umpire.

Court Dimensions



Scoring

In recent years, badminton has changed how players can score a point. In 2006, the rules were changed to a rally point system and this now allows both players to score a point during a rally, regardless of who served.

In competitive adult matches, all games are played to a best of three games. To win a game, a player must reach 21 points. However, if the game is tied at 20-20 (or 20-all) then you are required to win by two clear points. Unlike most sports, however, if the score becomes 29-29 (or 29-all), the player or team to score the 30th point will win the game.

Progress Vocabulary: *Identify, Define, describe, explain, compare and contrast, sporting links, analyse, evaluate*

Subject Knowledge Organiser

Badminton – Forehand Clear, Forehand Drop Shot & Forehand Smash

Forehand Clear

The forehand clear shot enables players to move their opponent to the back of the court, creating space in the mid and front court to exploit.

Stage one

Stand in position on the balls of your feet, with knees slightly bent. Turn sideways with your left foot pointing towards the target and your right foot parallel to the baseline. The left shoulder and fully extended elbow will be pointing towards the shuttlecock. The racket elbow should be extended backwards behind the head at 90° with the face of the racket above head height. Transfer weight onto the back foot.

Stage two

Keep your eyes on the shuttlecock. Flex your wrist and elbow backward until the racket is parallel with the floor. Rotate your body and step forward towards the shuttle with your racket leg, transferring your weight through the shot. Extend your racket elbow upwards into a throwing position.

Stage three

Keep your eyes on the shuttlecock. Extend your racket elbow quickly towards the shuttlecock, with the non-racket arm rotating backwards. Make contact with the shuttlecock as high as possible in front of your body. Extend your elbow and flex your wrist on contact, to allow for a 'whip' action. Drive the shuttlecock with a high trajectory towards the back of the court.

Stage four

Your body should have fully rotated with your racket foot now bearing all the weight and facing towards the target. The racket will follow through finishing to the left hand side of your body. Return back to ready position for the next shot.

Forehand Drop Shot

The forehand drop shot enables players to move their opponent to the front court to either win a point or create space in the mid and back court to exploit.

Stage one

As the shuttlecock is returned, stand in position on the balls of your feet, with knees slightly bent. Turn sideways with your left foot pointing towards the target and your right foot parallel to the baseline. The left shoulder and fully extended elbow will be pointing towards the shuttlecock. The racket elbow should be extended backwards behind the head at 90° with the face of the racket above head height. Transfer weight onto the back foot.

Stage two

Keep your eyes on the shuttlecock. Flex your wrist and elbow backward until the racket is parallel with the floor. Rotate your body and step forward towards the shuttlecock with your racket leg, transferring your weight through the shot. Extend your racket elbow upwards into a throwing position.

Stage three

Keep your eyes on the shuttlecock. Extend your racket elbow towards the shuttlecock, with non-racket shoulder rotating backwards. Make contact with the shuttlecock as high as possible in front of your body. Extend your elbow and flex your wrist on contact. Slice across the shuttlecock with the face of the racket slightly open, or just before contact, slow the speed of the racket down, tapping the shuttle gently over the net. Hit the shuttlecock at a flat trajectory, allowing it to drop just over the net.

Stage four

Your body should have fully rotated with your racket foot now bearing all the weight and facing towards the target. The racket will follow through, finishing to the left hand side of your body. Return back to ready position.

Forehand Smash

The forehand smash shot is hit with power and speed downward into the opponent's court. The angle/steepness of the shuttlecock's trajectory make it hard for the opponent to return.

Stage one

As the shuttlecock is returned, stand in position on the balls of your feet, with knees slightly bent. Turn sideways with your left foot pointing towards the target and your right foot parallel to the baseline. Left shoulder and fully extended elbow will be pointing towards the shuttlecock. The racket elbow should be extended backwards behind the head at 90° with the face of the racket above head height. Transfer weight onto the back foot.

Stage two

Keep your eyes on the shuttlecock. Flex your wrist and elbow backward until the racket is parallel with the floor. Rotate your body and step forward towards the shuttle with your racket leg, transferring your weight through the shot. Extend your racket elbow upwards into a throwing position.

Stage three

Keep your eyes on the shuttlecock. Extend your racket elbow quickly towards the shuttlecock, with the non-racket elbow extended and shoulder rotating backwards. Make contact with the shuttlecock as high as possible in front of your body. Extend your elbow and flex your wrist on contact, to allow for a 'whip' action. Drive the shuttlecock downwards towards the floor of your opponent's court with a low trajectory.

Stage four

Your body should have fully rotated with your racket foot now bearing all the weight and facing towards the target. The racket will follow through, finishing to the left hand side of your body. Return back to ready position for the next shot.

Subject Knowledge Organiser

Basketball – Rules, Scoring, Officials, Court Dimensions & Player Positions

Rules

- ☐ A basketball team can have a maximum of five players on the court.
- ☐ Player substitutions can be made at any time and there is no restriction on the number of substitutions made.
- ☐ A ball can travel through dribbling or passing.
- ☐ A player is no longer able to dribble with the ball once the player puts two hands on the ball. At this point, a player must either pass or shoot.
- ☐ If a team wins possession back in their own half, they have ten seconds to get it into their opponent's end or a foul will be called.
- ☐ An attacking team has 24 seconds from gaining possession of the ball to shoot.
- ☐ After the shot is taken, the clock is restarted for another 24 seconds.
- ☐ After a team scores a basket, the ball is returned back to the opposition to start again.
- ☐ All fouls that are committed throughout a game are to be accumulated and when a certain number is reached, the umpire will award a free throw.
- ☐ Depending on where a technical foul is committed, the umpire may award a number of free throws a player will receive.
- ☐ Violations can be awarded by the officials in basketball for player handling errors. These include travelling, double dribble, goal-tending and back court violation.

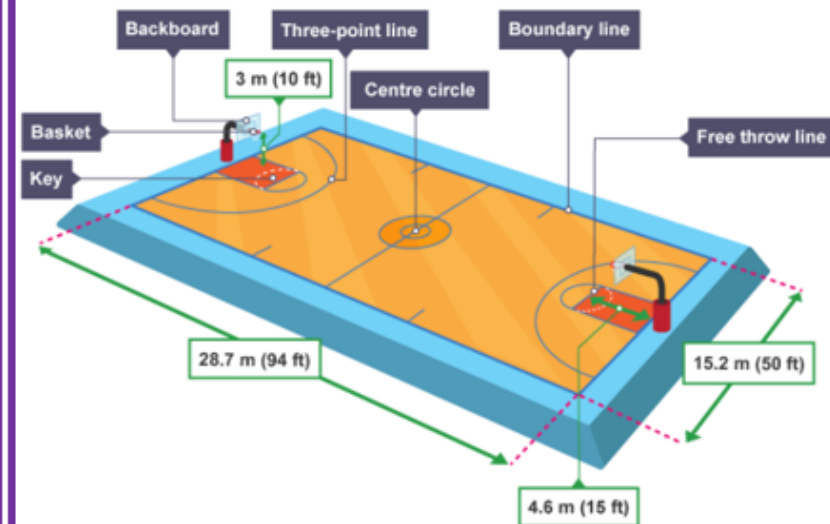
Scoring

In a game of basketball there are three clear ways to score points. If a shot is successfully scored from outside of the three-point line, three points are awarded. If a shot is successfully scored from inside of the three-point line, two points are awarded. If a team is awarded a technical foul then they will receive between one and three free shots. Each shot scored will be awarded with one point.

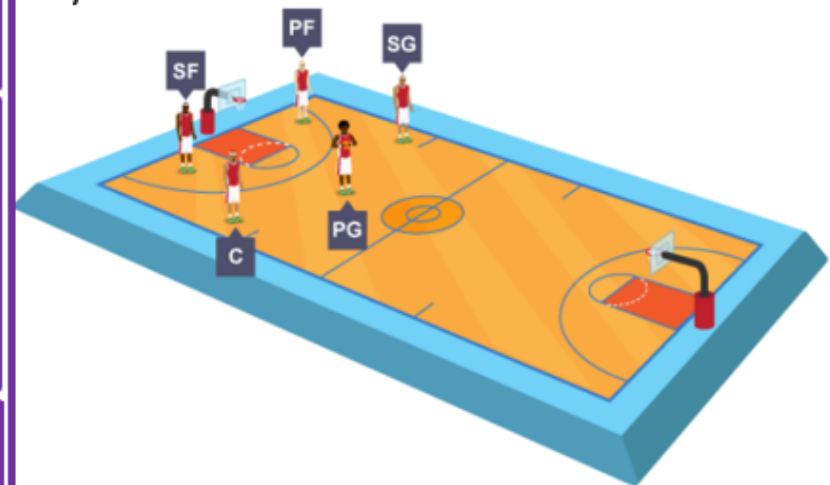
Officials

During a competitive game of basketball there are two referees, a scorekeeper, timekeeper and a shot clock operator. To ensure that everybody is aware of a decision made, the referees perform a series of hand and arm signals.

Court Dimensions



Player Positions



SF	Small forward	PF	Power forward	SG	Shooting guard
C	Centre	PG	Point guard		

Subject Knowledge Organiser

Basketball – Bounce Pass, Chest Pass, Jump Shot & Lay-up

Bounce Pass

A bounce pass is a short pass that enables the player to find a teammate in a crowded area. The height of the ball makes it difficult for the opposition to intercept.

Stage one

Feet shoulder width apart in opposition, with knees bent. Place hands each side and slightly behind the ball, with the fingers comfortably spread. Hold the ball at waist level, with elbows tucked in.

Stage two

Step in the direction of the pass, through extending your legs, back and arms. The wrist and fingers should be forced through the ball releasing it off the first and second fingers of both hands. Follow through with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

Chest Pass

A chest pass is a very fast and flat pass. This enables a team to move quickly up a court in a precise and accurate fashion.

Stage one

Stand with feet shoulder width apart, on the balls of your feet with back straight and knees slightly bent. Place hands on the sides of the ball with the thumbs directly behind the ball and fingers comfortably spread. The ball should be held in front of the chest with the elbows tucked in.

Stage two

Step in the direction of the pass by extending your legs, back and arms. Push the ball from the chest with both arms (not from one shoulder). Fingers are rotated behind the ball and the thumbs are turned down. The back of the hands face one another with the thumbs straight down.

Stage three

Make sure the ball is released off the first and second fingers of both hands. Follow through to finish up with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

Jump shot

The purpose of the jump shot is to allow the shooter to take aim from a higher position and therefore prevent a defender from blocking it.

Stage one

Place feet shoulder width apart, toes pointing straight ahead, and knees bent. Place non-shooting hand on the side of the ball and the shooting hand at the back of the ball, with the elbow tucked in. Hold the ball at chest height.

Stage two

Extend the legs/ankles by jumping straight up. Whilst in flight, extend back, shoulders and elbow. Flex the wrist and fingers forwards and release the ball at the highest point. After release, fingers should be pointed at the target, with the palm facing down.

Lay-up

A lay-up provides a player with the opportunity to drive at the opponent's basket, jump close to the target and release the ball safely at the backboard. When used effectively it has the highest percentage chance of scoring points.

Stage one

Dribble to the side of net. When a few metres away from the basket, hold the ball with both hands on the shooting hands side of the body. Place the non-shooting hand on the side of the ball, and shooting hand on top of the ball.

Stage two

The last step before the lay-up jump should ensure that take off foot is opposite to the shooting hand (left foot/right hand). Flex the knee at take-off.

Stage three

Whilst jumping, extend the shooting knee and raise the ball up. Bring the ball between the shoulder and ear. Direct the wrist and fingers straight at the basket and release the ball at the highest point. Complete the follow through with the arm up and palm facing down, and hold until the ball has reached the basket.

Always remember: You cannot dribble with the ball, catch the ball in two hands and then dribble again this is called "double dribbling".

Key words: dribbling, spin dribble, cross-over, chest pass, bounce pass, overhead pass, shoulder pass, double dribble, travelling, set shot, lay-up.

Subject Knowledge Organiser

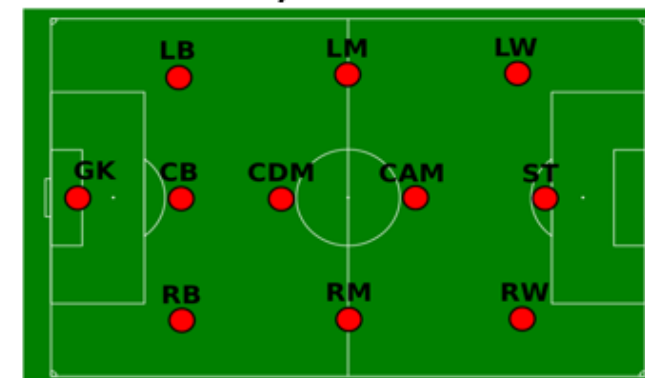
Football – Rules, Player Positions & Pitch Dimensions

Rules

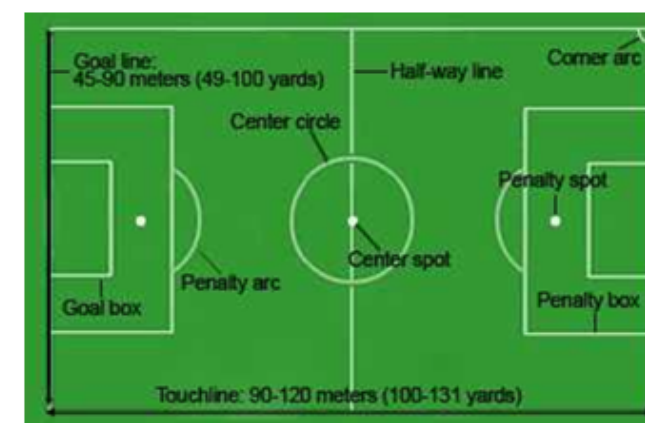
- ☐ A senior football match consists of two 45-minute halves and must have a 15-minute break in the middle.
- ☐ A team can start with a maximum of 11 players, of which one is the designated goalkeeper.
- ☐ To continue a match, a team must have a minimum of 7 players on the field.
- ☐ A team is able to make substitutions at any time of the match and are able to make a maximum of three changes.
- ☐ A competitive game must be officiated by a referee and two assistant referees, also known as linesmen.
- ☐ The whole ball must cross the goal line for it to constitute a goal.
- ☐ A referee may award a foul if they believe an unfair act is committed by a player. A foul contravenes the laws of the game and can be given for a range of offences (for example, kicking the player, pushing, handball etc.).
- ☐ Fouls are punished by the award of a free kick (direct or indirect, depending on the offence) or penalty kick to the opposing team if it is committed in the penalty box.
- ☐ In cases of foul play, a referee can penalise players with either a yellow or red card. A yellow card gives a player a warning about their conduct and a red card requires them to leave the pitch.
- ☐ In the event that a player receives two yellow cards, the referee will automatically show a red card.
- ☐ A throw-in is awarded to a team if the opposition kicks the ball over the side-lines.
- ☐ A corner kick is awarded to a team if the opposition kicks the ball over the goal line and either side of the goal posts.
- ☐ A player is deemed offside if they are in front of the last defender when a teammate passes the ball through to them.

Key Words: Passing, dribbling, close control, knee, chest, thigh, head, attacking header, defensive header, block tackle, slide tackle, lofted pass, chipped pass, side foot pass, jockeying, corner, throw-in, centre circle, corner flag, penalty, agility, balance, co-ordination, power, reaction time, speed, muscular endurance, cardiovascular fitness, flexibility.

Player Positions



Pitch Dimensions



Always remember:

When tackling an opponent always keep your eyes on the ball, do not dive in as this may lead to a foul being committed

Subject Knowledge Organiser

Football – Short/Long Pass, Control, Block Tackle, Throw In & Heading

Short pass

A short side foot pass enables a team to quickly pass a ball and help maintain possession. It is used for accuracy.

- ☐ Move parallel to the ball and place your non-kicking foot to the side of the ball.
- ☐ Keep your eye on the ball until you have it under your control.
- ☐ Look up to see where is the best place to pass it.
- ☐ On selection of your pass, maintain a strong body position.
- ☐ Swing your kicking foot through and strike the ball with the inside of your foot.
- ☐ Aim to hit the middle of the ball to ensure it stays close to the ground.
- ☐ Keep looking at your target.
- ☐ Follow your kicking leg through towards the intended target.
- ☐ The speed of the kicking leg will direct how hard you kick the ball.

Long pass

A long pass is an attacking skill that allows players to switch the direction of the attack very quickly to create space, find a teammate or to catch out the opposition.

- ☐ Move parallel to the ball and place your non-kicking foot to the side of the ball.
- ☐ Keep your eye on the ball until you have it under your control.
- ☐ Look up to see where is the best place to pass the ball.
- ☐ On selection of your pass, maintain a strong body position.
- ☐ Explosively bring your kicking foot through and strike the ball with laces of your football boot.
- ☐ Aim to hit the middle of the ball to ensure it stays close to the ground or the lower half of the ball if you want to lift it over opposition players.
- ☐ Keep looking at your target.
- ☐ Follow your kicking leg through towards the intended target and your body over the ball.
- ☐ The speed of the kicking leg will direct how hard you kick the ball.

Control

Good control of the football is an essential skill to maintain possession of the ball from the opposition and, if done accurately, gives the player more time to make the correct next decision.

- ☐ Keep your eye on the ball at all times.
- ☐ On contact with the ball, withdraw the foot slightly to take the momentum out of the ball (this is known as "cushioning").
- ☐ Aim to contact the middle of the ball to ensure that it stays close to the ground and does not bounce up.
- ☐ Once under control, move the ball out of your feet to allow the next decision to be made.

Block tackle

The block tackle is an essential skill for winning the ball back in football. It is mainly used when confronting an opponent head on and it is important to complete it with good timing and technique to prevent injury or fouls.

- ☐ Close down your opponent quickly but do not rush uncontrolled at them.
- ☐ Try to reduce any space around you and monitor for passing options.
- ☐ Stay on the balls of your feet, arms slightly out to jockey your opponent.
- ☐ Keep your eye on the ball and wait for a clear view of the ball.
- ☐ When you can see most of the ball, transfer your weight from your back to front foot and move the inside of your foot towards the ball.
- ☐ Maintain a strong body position.

Throw-in

The throw-in is the legal way to restart the game if the ball has gone out of play from either of the side-lines.

- ☐ Hold the ball with both hands and ensure that the thumbs are behind the ball and fingers are spread.
- ☐ Hold the ball behind the head with relaxed arms and elbows bent.
- ☐ Keep your feet shoulder-width apart.
- ☐ Face your target.
- ☐ Lean back with both feet in contact with the ground.
- ☐ Slightly bend your knees and arch your head, neck, shoulders and trunk.
- ☐ When ready, propel yourself forward and release the ball just as it passes your head.
- ☐ Once the ball is released, bring your strongest leg forward and out in front of you for balance.

Heading

The header can be an attacking or defensive skill and is used to try and win the ball when it is in the air.

- ☐ Keep your eyes on the ball.
- ☐ Use your forehead to make contact with the bottom of the ball for a defensive header or the top of the ball for an attacking header.
- ☐ For a defensive header it is important to get good height and distance but for an attacking header you need power and accuracy.
- ☐ You can also use flick headers to pass to a team mate.

Subject Knowledge Organiser

Gymnastics - Key Components of Fitness, Key Terms & Chronology

Key Components of Fitness for Gymnasts

A gymnast requires **flexibility** at the joints to allow for a larger range of motion around a joint.

A gymnast requires **muscular strength** to be able to balance on certain body parts. This is exerting their body against a given force.

A gymnast requires **power** in their arms and legs, which is speed x strength.

A gymnast requires **agility** to change direction at speed.

A gymnast requires **muscular endurance** to keep using the same muscle groups over and over again when performing a skill such as a forward roll.

A gymnast requires a certain levels of **speed** as they slow down their speed and increase their speed depending on the sequence they are performing.

Gymnastics Key Terms

Apparatus The equipment used in gymnastics.

Balance Position A static position, holding a distinct shape.

Dismount To leave an apparatus at the end of a routine.

Equilateral Triangle A triangle in which all three sides have equal length.

Jeté A move where the gymnast springs from one foot to the other.

Pike Body position where the body is bent forward 90 degrees at the waist with the legs kept straight.

Pivot A turn on the ball of the foot.

Plié Feet angled at 90 degrees.

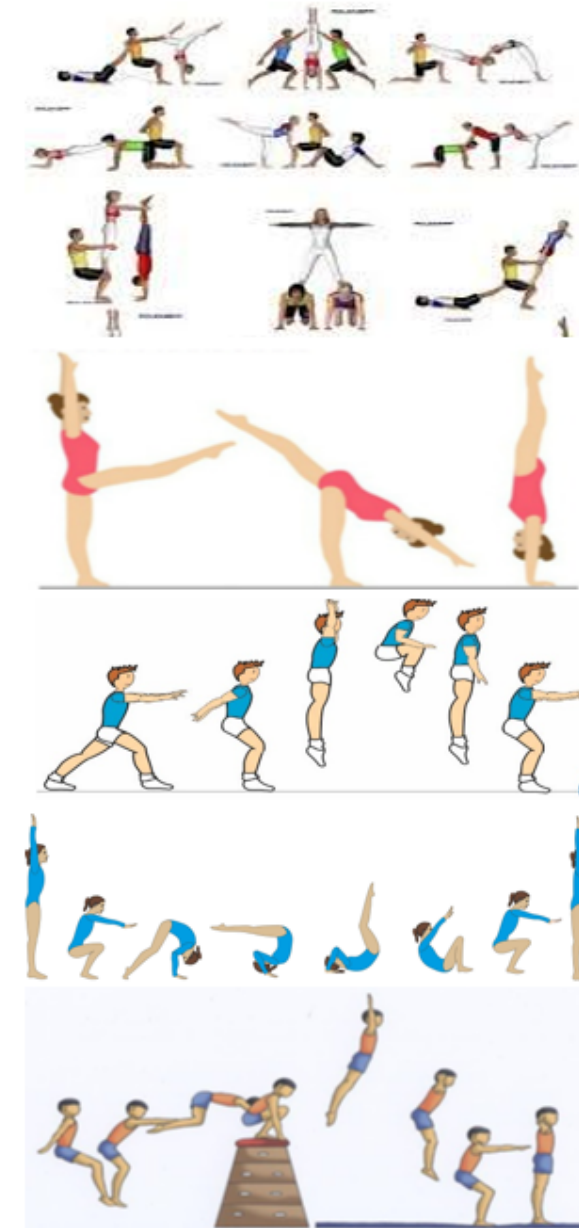
Routine A combination of moves and sequences performed on one apparatus.

Spotting Spotting a landing before take off.

Supporting When a second person assists the gymnast through a move and prepares to cushion them to avoid injury in the event of a fall.

Tuck A position where the knees are bent into the chest, with the body folded at the waist.

Walkovers A move where a gymnast transfers from a standing position to a handstand to a standing position.



Subject Knowledge Organiser

Gymnastics – Travelling, Jump, Roll, Weight on Hands, Balance & Vault

Travelling

Travelling in floor gymnastics is being able to move around the mat using different movements such as rolls, steps, turns, jumps, cartwheels, walkovers, handsprings, and being as creative as possible.

Standing Upward Jump

Bending your legs slightly, jump up while raising your arms forwards and upwards above your head. Keep your arms slightly in front of your body. As you land, it is important to keep your arms raised above your head, and place your feet slightly apart in the 'plie' position at an angle of 45 degrees, with your knees bent. As you make contact with the floor continue to bend the knees to absorb the downward force of landing. Bring your arms down sideways to stabilise the landing, without taking a step.

Forward Roll

From standing, crouch down. Place your hands on the floor in front of you, shoulder-width apart with your fingers facing forwards, while simultaneously placing your chin on your chest. This will ensure your hips are raised high enough and your spine is rounded so you can roll on to your back. Bend your arms as you place your neck on the floor, slightly extending the legs and pushing on the floor with your feet until the roll commences and you roll on to your back. Try to keep your legs straight as you commence the roll forwards. In the last part of the roll, bend your legs tightly so that your heels are close to your bottom. At the point where your feet contact the floor, stretch forwards with your arms so that your head and chest move over your feet. Once your body weight is in a position of balance you will be able to stand.

Cartwheel

Raise your hands above your head and place your leading leg forward. Reach forward to place the first hand (the hand on the same side as the leading leg) on the floor by bending your front leg and bending at the waist. When the first hand contacts the floor, straighten your front leg while kicking upward with your back leg over your head. Continue the movement by rocking over from your first to your second hand (which is still extended above your head). To do this, push strongly against the floor with your first hand, keeping your arms stretched up over your head. As your body rocks over your second hand, bring your second leg down to the ground and place it close to your second hand.

Headstand

Crouch down and place your hands and forehead on the floor to form an equilateral triangle. Your head should be approximately 30cm in front of your hands and your arms bent at an angle of 90 degrees. Extend your legs so that your pointed toes are resting on the floor. By pressing with your hands, slowly move your bottom over your forehead into a balanced position. Maintain the equilibrium by continually pressing with your hands. By exerting more pressure you will reach a point at which you can lift your feet from the floor. Continue to raise your legs above your head by pressing constantly against the floor with your hands. Make sure that your back is kept straight at all times by tightening your bottom and stomach muscles.

Headspring

To obtain the necessary height and rotation, a fast but controlled approached run is required. On take-off, drive your arms upwards and extend the body. Think of the lower body rotating over the upper body. You must still be moving upwards at the point when your hands strike the vault. In the strike phase, the angle of the body and the vault should be between 60 and 80 degrees to the vertical. Your hands should leave the box just before your body reaches the vertical. To achieve this the strike phase must be short and extremely powerful. During post-flight, keep the body as straight as possible. Just before landing, bend the knees.

Always remember: You need to make sure you show aesthetic appreciation when performing making sure arms and legs are kept as straight as possible where possible and your moves are controlled, smooth and balanced.

Progress Vocabulary: *Identify, Define, describe, explain, compare and contrast, sporting links, analyse, evaluate*

Subject Knowledge Organiser

Netball – Rules, Officials, Scoring, Player Positions & Court Dimensions

Rules

- ☐ Players are not allowed to travel with the ball.
- ☐ A team can have up to 12 players but only seven are allowed to play on court.
- ☐ Defending players are unable to snatch or hit the ball out of another player's hands.
- ☐ A defending player is only allowed to stand beside the player with the ball until it has left their hands.
- ☐ A defending player must stand three feet away from the person with the ball.
- ☐ An attacking player is unable to hold the ball for more than three seconds.
- ☐ Players must remain within their designated zones.
- ☐ The team retaining possession after the ball goes out of play have three seconds at the side-line to get the ball back into play.

Officials

During a competitive game of netball there are two referees and up to two scorekeepers and timekeepers officiating.

Scoring

In a game of netball there are two clear ways to score points:

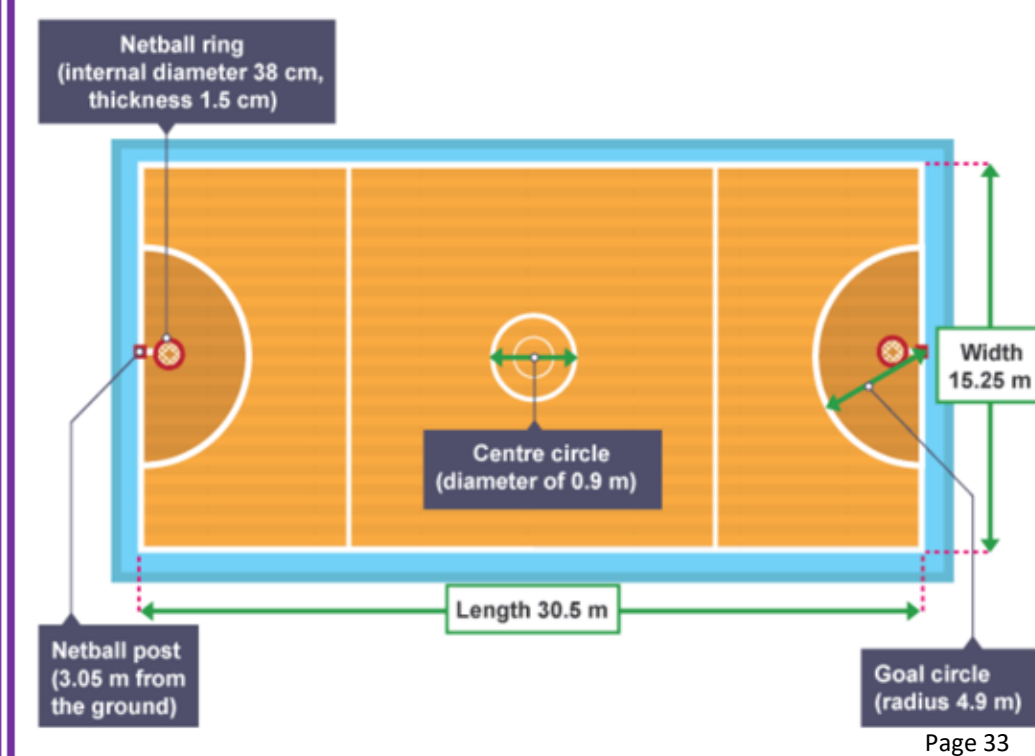
1. In open play, if a shot is successfully scored from inside the goal circle, the team gains one point.
2. If the team is awarded a technical foul then they will receive a free shot at the net. A successful shot will be awarded with one point.

Player Positions



GS	Goal shooter	GA	Goal attack	WA	Wing attack
C	Centre	WD	Wing defence	GD	Goal defence
GK	Goal keeper				

Court Dimensions



Subject Knowledge Organiser

Netball – Bounce Pass, Chest Pass, Shoulder Pass & Pivoting

Bounce Pass

A bounce pass is a short pass that enables the player to find a teammate in a crowded area. The height of the ball makes it difficult for the opposition to reach and intercept.

Stage one

Feet shoulder-width apart in opposition, with knees bent. Place hands each side and slightly behind the ball, with the fingers comfortably spread. Hold the ball at waist level, with elbows tucked in.

Stage two

Step in the direction of the pass, through extending your legs, back and arms. The wrist and fingers should be forced through the ball releasing it off the first and second fingers of both hands. Follow through with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

Chest Pass

A chest pass is a very fast and flat pass which enables a team to move quickly up a court in a precise and accurate fashion.

Stage one

Stand with feet shoulder width apart and on the balls of your feet, with back straight and knees slightly bent. Place hands on the sides of the ball with the thumbs directly behind the ball and fingers comfortably spread.

Stage two

The ball should be held in front of the chest with the elbows tucked in. Step in the direction of the pass, by extending their legs, back, and arms. Push the ball from the chest with both arms (not from one shoulder). Fingers are rotated behind the ball and the thumbs are turned down.

Stage three

The back of the hands face one another with the thumbs straight down. Make sure the ball is released off the first and second fingers of both hands. Follow through to finish up with the arms fully extended, fingers pointing at the target and thumbs pointing to the floor.

Shoulder Pass

A shoulder pass is a very dynamic, fast and long pass which enables a team to switch positions on court very quickly to either find a player in space or break defensive screens.

Stage one

Player's feet should be shoulder width apart in opposition. Opposite foot forward to throwing arm. Stand on balls of feet with toes pointing toward target, and knees slightly bent. Hold the ball at head height, slightly behind your head. Elbow should be at a 90° angle. Fingers spread behind the ball.

Stage two

Step in the direction of the pass by transferring your body weight from back foot to front foot. Pull the arm through with the elbow leading. To follow through, fully extend your arm and wrist. Point your fingers in the same direction as the pass, with palms facing down.

Pivoting

The pivoting action is a swivel movement that allows the player to move on a fixed axis to either pass or shoot.

Stage one

Run towards the ball and jump by extending the legs and ankles. Keep your eyes firmly fixed on the ball. Bring your hands out in front of your body at chest height with fingers spread open and pointing up.

Stage two

In the air catch the ball with thumbs an inch or two apart making a 'W' shape. Land on the ball of one foot on the ground. Flex your knee and ankle as your foot hits the floor.

Stage three

Stand with knees slightly bent and your feet shoulder width apart. Bring the ball into your body to protect it. Pivot by rotating yourself on the ball of your landing foot. Keep your upper body straight and head up. Make sure the hip of your pivoting leg is pointing in the direction you are aiming to pass the ball in. You can move or step with the other foot any number of times. You are not allowed to lift the foot you are pivoting on before you release the ball.

Always remember: When you land after catching the ball you must stick one foot that cannot move, your other foot is allowed to move/pivot.

<p><u>Types of venue:</u></p> <ul style="list-style-type: none"> • <i>Small and medium local venues</i> <ul style="list-style-type: none"> • Pub • School stage • Small theatre • <i>Large multi-use spaces</i> <ul style="list-style-type: none"> • Sports' arena • West end theatre • Outdoor festival 		<p><u>Marketing and distribution:</u></p> <ul style="list-style-type: none"> • <i>Marketing</i> <ul style="list-style-type: none"> • The action of promoting and selling a product • <i>Distribution</i> <ul style="list-style-type: none"> • The movement of goods (CDs) from the source (record label) through a distribution channel (iTunes, HMV) right up to the customer 	
<p><u>Unions and Trade Bodies:</u></p> <ul style="list-style-type: none"> • MU (Musicians' Union) • Equity • BECTU (Broadcast Entertainment Cinematograph Theatre Union) • MPG (Music Producers Guild) • APRS (Association of Professional Recording Services) • PLASA (Professional Lighting and Sound Association) 		<p><u>Health, safety and security at venues:</u></p> <ul style="list-style-type: none"> • Heating, lighting and ventilation • Electrical equipment • Toilets and drinking water clean • First aid and emergency exits • Obstacles appropriately lit/indicated • Adequate parking and parking arrangements • Flow of people in and out of venue • Secure ramps/stage scaffolding 	
<p><u>Service companies and agencies:</u></p> <ul style="list-style-type: none"> • PRS (Performing Rights Society) <ul style="list-style-type: none"> • Licenses the composer's copyright for public performances of your songs (broadcast, live, recorded). • MCPS (Mechanical Copyright Protection Society) <ul style="list-style-type: none"> • Licenses the composer's copyright (royalties) for sound recordings (i.e. CD, ringtone). It will be in physical format (i.e. digital). • PPL Licensing (Phonographic Performance Limited) <ul style="list-style-type: none"> • Licenses the right to perform sound recordings and collects royalties for record companies and performers on recordings. 		<p><u>Promoters:</u></p> <p>Activity that supports (marketing and promotion) and encourages (publicity) a product for public awareness (i.e. live events). Promoters:</p> <ul style="list-style-type: none"> • Secure a venue for a show • Promote the show (media, posters) • Work with the artist to make sure all needs are covered (PA, effects) • Cover the venue costs and costs of promotion (taking a percentage) • Earn an agreed-to fee or royalties 	
<p><u>Music publishing:</u></p> <p>Usually linked with printed music. The business of music publishing is concerned with developing, protecting and valuing music. They look after the royalties to a composer's work.</p> <ul style="list-style-type: none"> • Major publishing companies • Self-publishing 			

Key Vocabulary...		The British Values and Some Other Rights	
Laws	Rules which are set by the government that every single person must follow.	Democracy	The idea that the people should be able to collectively choose their leaders.
Election	The event at which people vote to choose the government.	The Rule of Law	The idea that all people should follow the law and be treated equally by the law.
Respect	Giving consideration to the feelings, wishes, needs or abilities of another person.	Individual Liberty	The idea that people should be free to choose their own path in life.
Racism	Prejudice or discrimination based on someone's skin colour or place of origin.	Mutual Respect and Tolerance	The idea that no one should be mistreated based on their race, gender, religion, disability or any other difference.
Sexism	Prejudice or discrimination based on someone's gender or biological sex.	Freedom of Speech	The idea that people should be free to express themselves and their views without fear of punishment.
Prejudice	Making judgements about someone based on their gender, race, sexual orientation or religion.	The Right to Protest unfair Treatment	Within certain rules, UK citizens are legally allowed to protest against treatment or rules that they deem unfair.
Discrimination	Mistreatment of someone based on their gender, race, sexual orientation or religion.	Human Rights	The basic rights which are considered to be common to all people rather than having to be earned.
Protest	A public demonstration of <u>dissatisfaction</u> with the rules.		
Liberty	Freedom, the right to make decisions about one's own life.		

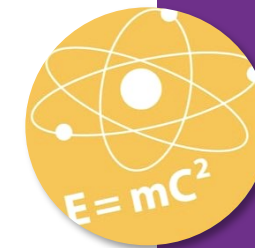
The Big Idea

In many countries the rights and freedoms of the people are not guaranteed and protected by law. We are very lucky in Britain to be living in a country which protects us in this way and allows us to live our lives as we choose, as long as we don't have a negative affect on others. It has been a long journey through history to gain these rights and freedoms. Democracy, for example, has developed over more than 800 years, beginning with King John being forced by his barons to grant them some basic rights in a document which we now call Magna Carta, signed in the year 1215. Over this period, there have been many people who have fought for the rights of the British people, brave campaigners such as Annie Besant and William Wilberforce, who both worked hard to make sure that eventually all British people would be free and have a say in how the country is governed.

Without these rights and freedoms there would be nothing to stop us being put on trial or in prison for voicing an unpopular opinion, and nothing to stop a dictator such as Adolf Hitler or Josef Stalin taking over the government, and making laws which are cruel and ruin people's lives. These rights and freedoms essentially give us the chance to lead a happy life. They don't guarantee a happy life, they just give us the opportunity, as there are many more ingredients to leading a happy life and these will be different for each person. However they give us the opportunity to have an education, to learn all that we can about the world and try to find our place in it, and they give us the freedom to campaign for change in our society, where we see injustice such as racism or gender discrimination. These rights and freedoms give us the opportunity to choose our own path and attempt to follow it.

Activity - Research the five key British Values of democracy, the rule of law, individual liberty, mutual respect and freedom of speech. Create a fact-file explaining how these rights and values are protected in Britain.

Notes



Notes

