



Year 7

Knowledge Organiser

Term 2: 2020

Name: _____

Knowledge Organiser

- 1 English
- 2 Maths
- 3 Science
- 4 Art
- 5 Catering
- 6 Computing
- 7 Dance
- 8 Drama
- 9 French
- 10 Geography
- 11 History
- 12 Music
- 13 PD
- 14 RE

Plot

PART I—"THE OLD BUCCANEER" An old sailor, calling himself "the captain"—real name "Billy" Bones—comes to lodge at the Admiral Benbow Inn, paying Jim Hawkins a few pennies to keep a lookout for a one-legged "*seafaring man*". When Billy dies, Jim finds a sea chest containing money, a journal, and a map. He and Dr. Livesey decide to mount an expedition to find buried treasure.

PART II—"THE SEA COOK" Jim and friends travel to Bristol to find a ship, *The Hispaniola*, and crew for the journey. We are introduced to Long John Silver and Captain Smollett, who are to lead the trip. During the voyage Jim—concealed in an apple barrel—overhears Silver planning a mutiny. Jim alerts his friends.

PART III—"MY SHORE ADVENTURE" They arrive at the island and Jim sneaks ashore. While exploring, Jim overhears Silver plotting and then murdering several crewmen. Jim meets Ben Gunn who was marooned on the island by Silver and Ben Gunn agrees to help Jim.

PART IV—"THE STOCKADE" Meanwhile, Jim’s friends have abandoned ship and come ashore to occupy an old stockade. There is a battle for the stockade with the pirates. Jim finds the stockade and joins them. The next morning, Silver appears under a flag of truce. Jim and friends refuse to hand over the map and Silver threatens attack. Another battle begins.

PART V—"MY SEA ADVENTURE" After the battle, several of Jim’s friends are either killed or wounded. Jim escapes and finds the pirate ship abandoned, which he then takes control of. Once on board, he realises that one pirate still remains. They reach a truce but in the end the pirate betrays Jim. There is a battle which Jim wins. Jim returns to the stockade to find Silver has taken it over.

PART VI—"CAPTAIN SILVER" Silver and the others argue about whether to kill Jim. Silver finds out that Jim knows the whereabouts of the ship. Silver and the others set out with the map, taking Jim along as hostage. On their way to find the treasure, they are ambushed by Jim’s friends. They realise that Ben Gunn has had the treasure all along. Jim and friends, with Silver as prisoner, get back on board *The Hispaniola* and head back to England. Silver escapes...

Characters

Jim Hawkins – a teenager who narrates most of the story. The protagonist

Mrs Hawkins – Jim’s mother

Dr Livesey – town Doctor, smart, narrates part iv. Middle class, educated character who is practical and sympathetic

Squire Trelawney – Local landowner who talks too much. Landed gentry, portrayed as a fool– an amusing plot device to ensure the *Hispaniola* is crewed by pirates

Captain Smollett – Captain of the *Hispaniola*. Honest. Upholds British standard and law and order. Provides a balance to Squire Trelawney’s reckless behaviour

Ben Gunn – Ex-pirate. Marooned. Gone crazy. Plot device to enable Jim Hawkins to capture *The Hispaniola* on his coracle (small boat)

Long John Silver – Pirate ringleader. ‘Cook’ on ship. Introduces a stereotype and creates a contradictory character

Israel Hands – Pirate eventually defeated by Jim

Dick, George, Morgan -- Pirates

Billy Bones – Old pirate who likes his rum. Being hunted for a map. A plot device to enable Jim to begin his journey

Black Dog – Old Pirate, looking for a treasure map

Blind Pew – Evil, blind pirate. A symbol for evil and consequences of actions.

Job Anderson - Pirate. Forces Silver to start the mutiny early

Redruth – works for the Squire

Abraham Gray – Pirate who turns good guy

Captain Flint – deceased pirate with a terrifying reputation

Hispaniola – the Ship; **The Admiral Benbow** – The Inn that Jim lives in.

Key Quotes

Long John Silver

- *"He was very tall and strong, with a face as big as a ham — plain and pale, but intelligent and smiling."*
- *"hopping about upon it like a bird."*
- *"and I thought I knew what a buccaneer was like — a very different creature."*
- *"Yes, my lad," said he; "such is my name, to be sure. And who may you be?"*
- *"Spring like a snake..."*

Ben Gunn

- *"What it was, whether bear or man or monkey, I could in no wise tell."*
- *"From trunk to trunk the creature flitted like a deer, running manlike on two legs, but unlike any man that I had ever seen."*
- *"His skin, wherever it was exposed, was burnt by the sun; even his lips were black, and his fair eyes looked quite startling."*
- *"Clothed with tatters of old ship's canvas and old sea-cloth, and this extraordinary patchwork was all held together by a system of the most various and incongruous fastenings, brass buttons, bits of stick, and loops of tarry gaskin."*

Key vocabulary: Anxiety, allegory, antagonist, barbarity, criminality, character synopsis, contrast, degenerate, duplicity, duty, exploitation, feral, heroism, morality, misconduct, nefarious, paradox, protagonist, respectability, restraint, untrustworthy, vengeance.

Maritime/seafaring language

Maritime
Quay
Harbour
Dock
Starboard
Port
Scuppers
Ebb
Booms
Blocks
Rudder
Mast
Bow/stern
Fore hold
Schooner
Berth
Companion
Coxswain
Foc’s’le (forecastle)
Mizzen/fore-sail
Luff
Coracle
Buccaneer
Tarry gaskin

Context: Pirates and Bristol In the 1700’s, Britain was a maritime nation and had a tradition of seafaring. It was a time of great exploration with ships sailing to the East Indies/Americas, etc. The period between 1650-1680 was known as the ‘Golden Age’ of piracy, especially in the Caribbean and Pacific oceans. There were many real-life pirates, among them the notorious Blackbeard. It is believed that Blackbeard, whose real name was Edmund Teach, was born in Bristol and died in battle in 1718 at the age of 35-40. It was a period of great expansion in trade and Britain, France and Spain sailed the seas trading valuable goods. As a result, their ships were engaged in many battles with pirates who plagued the seas plundering any ship they could board. Bristol was an important sea port famous for its docks and harbours. It was also famous for its ship-building skills which is the root of the famous saying, “shipshape and Bristol fashion,” meaning well-built craftsmanship.

Themes: Good versus evil Conflict Death Friendship and loyalty Adventure/Journey/Quest Coming of age (growing up) Fathers and father figures Savagery versus civilisation

Terminology	Definition
Adjective	A word describing an attribute of a noun, such as sweet, red, or technical.
Noun	The name of a person, place or thing e.g. James, London, table.
Adverb	Used to describe/modify a verb, usually with an –ly suffix e.g. gently.
Verb	A word which determines an action e.g. run.
Inference	Reading between the lines to give an opinion and implicit meaning.
Deduction	Basing opinions on obvious facts to understand the explicit meaning.
Simile	A figure of speech involving the comparison of one thing with another using the words 'like' or 'as' (e.g. as brave as a lion).
Alliteration	The occurrence of the same letter or sound at the beginning of words.
Metaphor	A figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable.
Personification	The attribution of human characteristics to something non-human.
Pathetic Fallacy	The use of the weather/ nature to portray a feeling/ mood.
Foreboding	Create tension through ominous detail that implies something terrible is going to happen.
Symbolism	Making something represent something else.

Vocabulary & Register			
Magpie, look-up and make use of some of Robert Louis Stevenson's finest words from <i>Treasure Island</i> :			
Lodging	Sheepishly	Enclosure	Divined
Plodding	Confounded	Swollen	Voyage
Roared	Appearance	Stockade	Schooner
Cove	Vegetation	Regiment	Displaced
Deeds	Giddily	Fortune	Consultation
Lapping	Discipline	Provision	Anchorage
Obeded	Foolhardy	Aroused	Propulsion
Marched	Desperado	Primed	Coracle
Dreadful	Neglecting	Disaster	Truant
Peered	Agile	Buccaneers	Obstinately
Rapidly	Mingled	Hostilities	Wrought
Tottering	Cannibal	Posture	Reverberations
Livid	Tatters	Bestowed	Disposition
Accustomed	Spires	Invaluable	Soldier
Wringing	Dreary	Abominable	Echo
Villainous	Sweltering	Mutineer	Ceased
Agreeable	Skulk	Bombardment	Cutlass
Expression	Jiffy	Medicine	Ebb
Beheld	Craggy	Assailants	Scuffle
Tattered	Vividly	Calf	Incline
Suspicious	Anchorage	Musket	Swivel
Tarry	Foliage	Disgust	Hoisted
Connoisseur	Rapidity	Envy	Literally
Coarsely	Adversary	Determined	Blandly
Personage	Qualm	Briskly	Absurdly
Tyrannised	Sodden	Folly	Substance
Assizes	Outlandish	Blaze	Merest
Indignation	Undulating	Supplied	Prejudiced
Nimbleness	Quaint	Defeated	Transparent
Detestable	Hither	Overhaul	Roving
Foolhardiness	Thither	Fatally	Schooner
Anticipations	Knoll	Accidental	Imitation
Brooded	Aperture	Stifling	Dexterity
Savages	Languor	Scarce	Brace
Obeding	Pious	Adrift	Knoll
Tragic	Catechism	Droning	

YEAR 7 – TERM 2

KPI 1 – Converting between FDP; (Hegarty 73-76, 82, 83, 52, 55, 46)

Fraction	Decimal	Percentage
13/100	0.13	13%
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
4/5	0.8	80%
11/100	0.11	11%
13/20	0.65	65%
$\frac{3}{4}$	0.75	75%
2/5	0.4	40%
3/50	0.06	6%

KPI 2 - Percentages; (Hegarty 84-90, 81, 97)

Work out 35% of 120

$$10\% = \text{£}12$$

$$30\% = 3 \times 12 = \text{£}36$$

$$5\% = \text{£}6$$

$$35\% = \text{£}36 + \text{£}6 = \text{£}42$$

Calculator method

$$120 \times 0.35 = \text{£}42$$

Increase 120 by 35%.

$$\text{Method 1: } 120 + 42 = 162$$

$$\text{Method 2: } 120 \times 1.35 = 162$$

KPI 3 – Ratio & Proportion; (Hegarty 331-337)

A and B share money in the ratio 3:1

A gets £10 more than B.

How much did they share overall?



£10

2 parts = 10

$$1 \text{ part} = 5$$

$$4 \text{ parts} = 4 \times 5 = 20$$

KPI 4 – Algebra Rules, Simplifying; (Hegarty 151-154, 156, 157, 102-107)

$$\text{Q1. } 4x + 6x = 10x$$

$$3y + 2y = 5y$$

1) $4x + 6x + 3y + 2y$	$10x + 5y$	2) $4f + 3w + 2w$	$4f + 5w$
3) $7h + 3c + 2h + 8c$	$9h + 11c$	4) $5g + g + 3t$	$6g + 3t$
5) $8a + 4k + 2k + a$	$9a + 6k$	6) $a + b + a + b$	$2a + 2b$
7) $3x + 2 + 2x + 1$	$5x + 3$	8) $x + 1 + x + 2x$	$4x + 1$
9) $5h + 3g + 7 + 2g$	$5h + 5g + 7$	10) $7 + x + x + y + 2$	$9 + 2x + y$

KPI 5 – Substitution; (Hegarty 155, 278-281)

$$8t + 4u + 15 \text{ when } t=2 \text{ and } u=7$$

$$8(2) + 4(7) + 15$$

$$= 16 + 28 + 15$$

$$= 59$$

Rearranging formulae

$$m = 6p + t$$

subtract $6p$ from both sides

$$m - 6p = t$$

Re-write with the new subject on the left as usual.

$$t = m - 6p$$

KPI 6 – Sequences; (Hegarty 196-198)



$$6n - 2$$

Sequence 6n-2

$$1^{\text{st}} \text{ term} = 6 \times 1 - 2 = 4$$

$$2^{\text{nd}} \text{ term} = 6 \times 2 - 2 = 10$$

$$3^{\text{rd}} \text{ term} = 6 \times 3 - 2 = 16$$

$$4^{\text{th}} \text{ term} = 6 \times 4 - 2 = 22$$

$$5^{\text{th}} \text{ term} = 6 \times 5 - 2 = 28$$

YEAR 7 – TERM 2

KPI 7 – Solving Equations; (Hegarty 176-179, 184)

Solve:

$1 = 3x - 5$ (add 5 to both sides of the equation)

$6 = 3x$ (divide both sides by 3)

$2 = x$

Solve:

$2x - 1 = 5x + 8$ (subtract $2x$ from both sides of the equation)

$-1 = 3x + 8$ (subtract 8 from both sides of the equation)

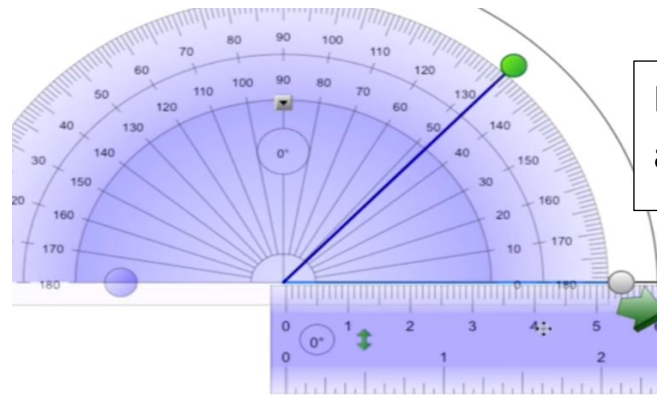
$-9 = 3x$ (divide both sides by 3)

$-3 = x$

Or

$x = -3$

KPI 8 – Angle Notation, Rules, Types of Angles and Measuring; (Hegarty 461)



Draw a line 6cm long and a 47° angle

KPI 9– Missing Angles in a Triangle and Quadrilateral; (Hegarty 485-487, 812-814, 477, 478, 560, 822-824)

Type of angle	Size of angle	Picture
1. Acute angle	$0^\circ < x < 90^\circ$	
2. Right angle	$x = 90^\circ$	
3. Obtuse angle	$90^\circ < x < 180^\circ$	
4. Half-turn	$x = 180^\circ$	
5. Reflex angle	$180^\circ < x < 360^\circ$	
6. Full-turn	$x = 360^\circ$	

YEAR 7 – TERM 2

<p>KPI 1 – Converting between FDP; (Hegarty 73-76, 82, 83, 52, 55, 46)</p> <table><tr><th>Fractions</th><th>Decimals</th><th>Percentages</th></tr><tr><td>3/8</td><td></td><td></td></tr><tr><td></td><td>0.43</td><td></td></tr><tr><td></td><td></td><td>17%</td></tr><tr><td>3/5</td><td></td><td></td></tr><tr><td></td><td>0.62</td><td></td></tr><tr><td></td><td></td><td>28%</td></tr><tr><td></td><td></td><td></td></tr><tr><td>1/9</td><td></td><td></td></tr></table>	Fractions	Decimals	Percentages	3/8				0.43				17%	3/5				0.62				28%				1/9			<p>KPI 2 - Percentages; (Hegarty 84-90, 81, 97)</p> <p>Work out 35% of 180</p> <p>10% =</p> <p>30% =</p> <p>5% =</p> <p>35% =</p> <p>Calculator method</p> <p>180 x =</p> <p>Increase 120 by 35%.</p>	<p>KPI 3 – Ratio & Proportion; (Hegarty 331-337)</p> <p>1) A plank of wood is cut into two pieces in the ratio 5:2. The first piece of wood is 15 inches longer than the second. How long was the original plank of wood?</p> <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>							
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<p>KPI 4 – Algebra Rules, Simplifying; (Hegarty 151-154, 156, 157, 102-107)</p> <p>2. Intelligent Practice</p> <p>$6j + 5k + 4j + 3k =$</p> <p>$6j + 5k + 4j - 3k =$</p> <p>$6j + 5k - 4j - 3k =$</p> <p>$6j - 5k - 4j - 3k =$</p> <p>$6j - 5k - 4j + 3k =$</p> <p>$6j - 5k + 4j + 3k =$</p> <p>$-6j - 5k + 4j + 3k =$</p> <p>$-6j - 5k - 4j - 3k =$</p>	<p>KPI 5 – Substitution; (Hegarty 155, 278-281)</p> <p>Evaluate $8t + 4u + 15$ when $t=5$ and $u=4$</p> <p>Rearranging formulae</p> <p>$m=4p + t$</p> <p>a) Make p the subject</p> <p>b) Make t the subject</p>	<p>KPI 6 – Sequences; (Hegarty 196-198)</p> <div><div><div><div><div></div><div>+6</div></div><div><div></div><div></div></div><div><div></div><div>+6</div></div><div><div></div><div></div></div><div><div></div><div>+6</div></div><div><div></div><div></div></div><div><div></div><div>+6</div></div><div><div></div><div></div></div></div><div>4,10,16,22,28,...</div><div>6n -2</div></div><p>Sequence 6n-2</p><p>6th term =</p><p>7th term =</p><p>8th term =</p><p>9th term =</p><p>10th term =</p></div>																																		

YEAR 7 – TERM 2

KPI 7 – Solving Equations; (Hegarty 176-179, 184)

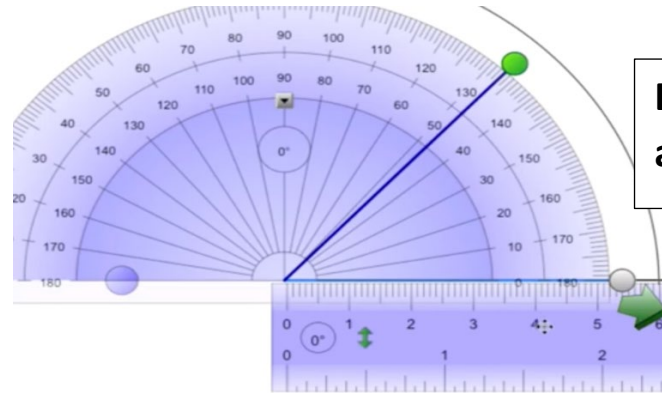
Solve:

$$1 = 4x - 11$$

Solve:

$$3x - 1 = 9x - 25$$

KPI 8 – Angle Notation, Rules, Types of Angles and Measuring; (Hegarty 461)



Draw a line 5cm long and a 32° angle

KPI 9– Missing Angles in a Triangle and Quadrilateral; (Hegarty 485-487, 812-814, 477, 478, 560, 822-824)

Type of angle

Size of angle

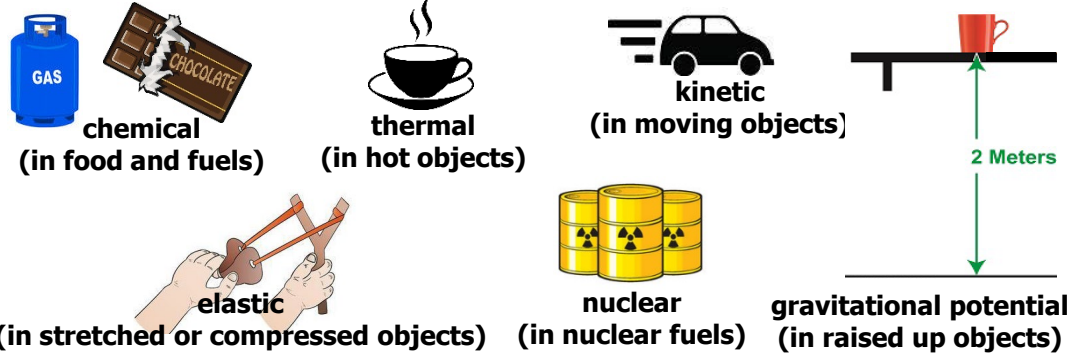
Picture

1. Acute angle
2. Right angle
3. Obtuse angle
4. Half-turn
5. Reflex angle
6. Full-turn

Year 7 Science Knowledge Organiser: Energy

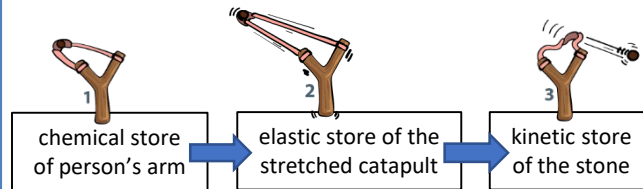
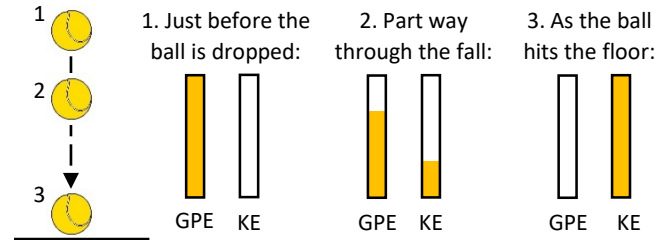
Energy Stores

There are many different stores of energy, including:



Energy Transfers: When work is done, energy is transferred or shifted between energy stores, eg:

When a ball falls energy is shifted from the gravitational potential store of the ball to the kinetic store of the ball.



When firing a catapult, energy is shifted from the chemical store of the person's arm to the elastic store of the catapult to the kinetic store of the stone.

Power = the rate of transferring energy.

An object with a high power rating transfers a lot of energy every second.

eg an electric kettle with a power rating of 2400 W (2.4 kW) transfers 2400 J every second!



Equation

$$power = \frac{energy}{time}$$

$$P = \frac{E}{t}$$

Meanings of terms in equation

P = power (W)
 E = energy (J)
 t = time (s)

Key Terms	Definitions
System	An object or group of objects
Transfer	Move from one energy store to another energy store
Dissipated	Where energy spreads out so it is no longer useful
Work	Shifting energy from one store to another
Renewable	A resource that can be replenished so it will not run out
Non-renewable	A finite resource that will run out one day

Conservation of energy:

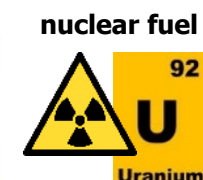
Energy cannot be created or destroyed!

Energy can be stored or it can be transferred.

The total energy in a system before a change occurs equals the total energy in the system after the change.

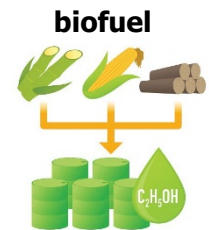
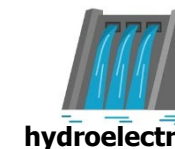
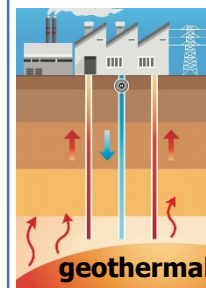
With each transfer, some energy is dissipated (transferred to the surroundings) through heating or as sound.

non-renewable



Energy Resources

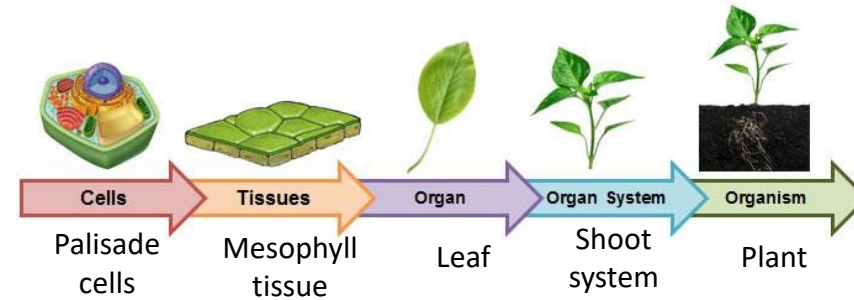
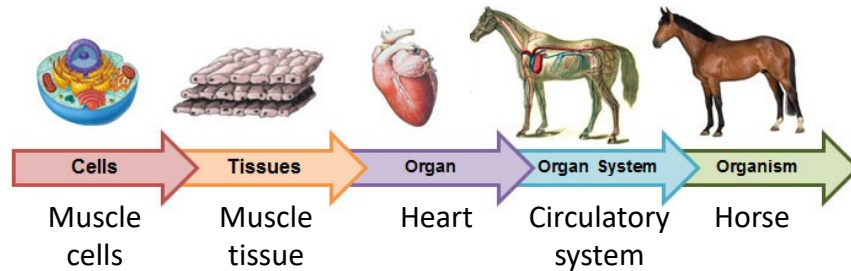
renewable



Y7 Biology - Organisation

Cells are the building blocks of life. Cells rarely work alone.

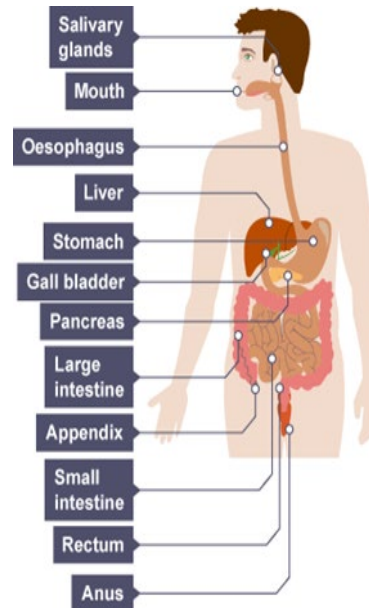
Hierarchy



The digestive system

Food is digested in the digestive system, this is an organ system.

- The mouth has teeth that mechanically digest the food
- The mouth also has a salivary gland that releases enzymes to break the food down.
- The oesophagus is a muscular tube that pushes the food into the stomach.
- The stomach churns the food up, while also adding acid and enzymes to break the food down.
- In the small intestine, food is broken down further and is absorbed thorough the walls of the intestine into the blood.
- The large intestine absorbs any remaining water
- Finally the food passes through the anus as faeces



Key Terms	Definitions
Cell	The building block of life and the smallest structural unit of an organism
Tissue	A group of cells working together to perform a particular function
Organ	A group of tissues working together to perform a particular function
Organ system	A group of organs working together to perform a particular function
Organism	An individual animal, plant, or single-celled life form
Digestive System	The organ system that breaks down food into small pieces
Muscular system	Supports the body and causes movement by muscles and bones working together
Immune system	Protects the body against infections
Circulatory system	Transports substances around the body in the blood

Y7 Biology - Organisation

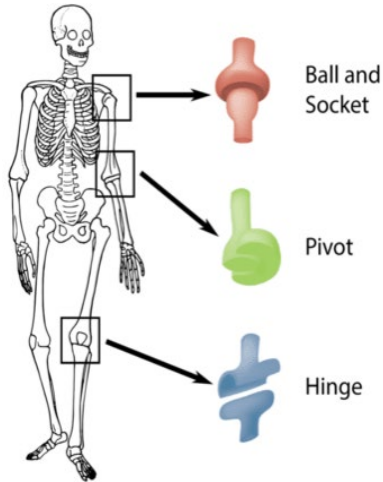
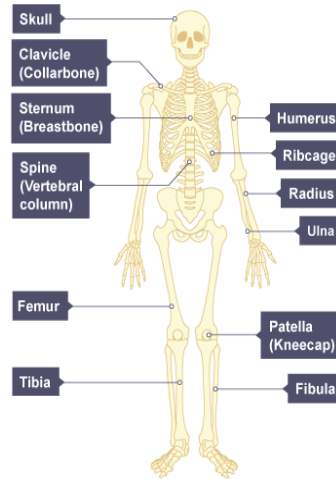
The skeletal system

The skeletal system is made of bones and joints.

It is sometimes called the skeleton

The skeletal system has 4 main functions:

- ☐ To allow movement
- ☐ To provide support
- ☐ To protect
- ☐ To produce blood cells.



Joints

Joints are the point at which two parts of the skeleton fit together

Joints can consist of connective tissues (ligaments, cartilage and tendons) as well as bone and synovial fluid

Synovial fluid provides lubrication within the joint

There are different types of joints, for example:

- ☐ Ball and socket joints (in your hip or shoulder)
- ☐ Pivot joints (let you turn your neck or rotate your forearm)
- ☐ Hinge joints (in your elbow or knee)
- ☐ Fixed joints (found in your skull)

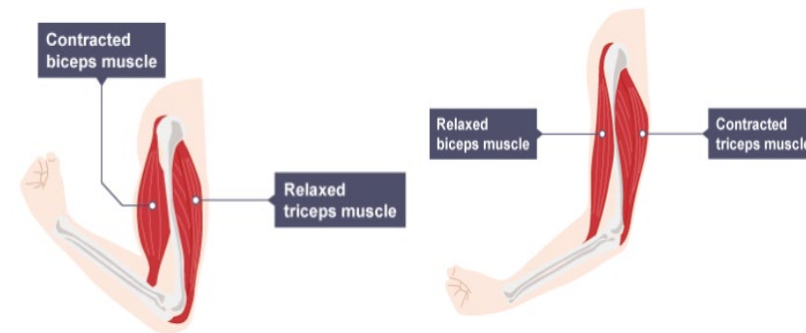
Key Terms

Definitions

Connective Tissue	Tissue that connects or supports other tissues or organs e.g. ligaments, cartilage or tendons
Ligaments	Stabilises joints, connects bones to other bones
Cartilage	Connective tissue which is found at the end of bones to cover and protect them.
Tendons	Connects muscles to the skeletal system.
Antagonistic Pairs	Pairs of muscles where each opposes the movement of the other e.g. biceps and triceps
Stimulus	A specific event which leads to a reaction.
Central Nervous System (CNS)	The brain and the spinal cord.

Movement

The muscular system allows for movement and is made of muscles working in antagonistic pairs.



Muscles are controlled by nerves.

Nerves are stimulated by changes in the environment. Nerve cells then carry electrical signals to and from the central nervous system to produce a response to the stimulus.

Some responses are automatic (reflexes) and others are conscious.

Year 7 Physics Knowledge Organiser- Electricity (1)

Charge

Some particles are charged.

Charge can be positive (+), negative (-), or neutral (0).

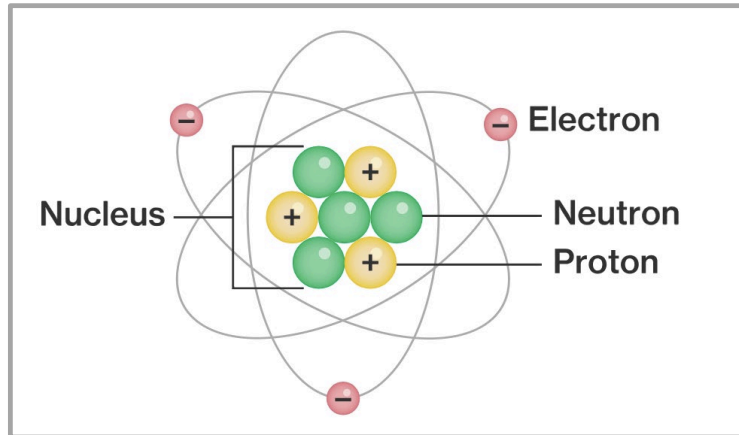
Like charges repel.



Dislike charges attract.



Charge and atoms



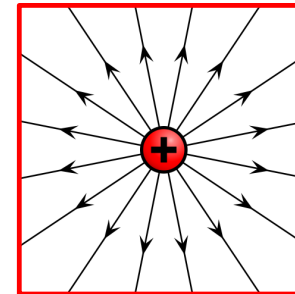
Particle	Relative Charge
Proton	+1
Neutron	0
Electron	-1

Key Terms	Definitions
Charge (Q)	Property of a particle. Has units of Coulombs (C).
Proton	Subatomic particle with relative charge of +1 Coulombs.
Neutron	Subatomic particle with neutral charge.
Electron	Subatomic particle with relative charge of -1 Coulombs.
Electric field	The area around a charge that a force acts.

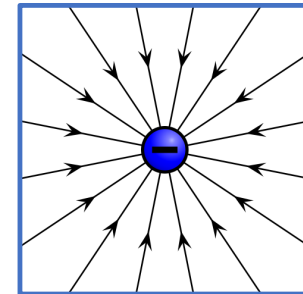
Electric field

Radial field

Around a positive charge

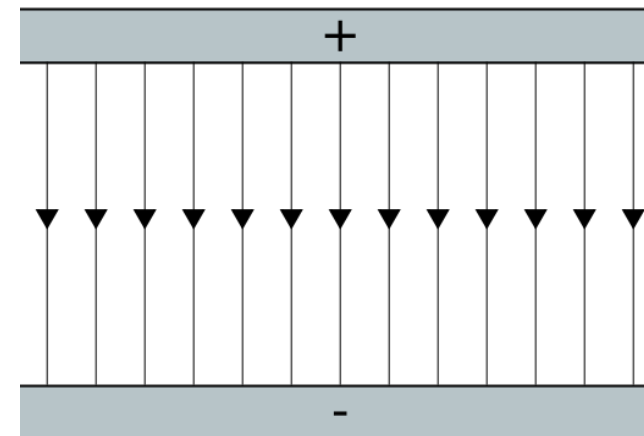


Around a negative charge



Uniform field

Between two plates



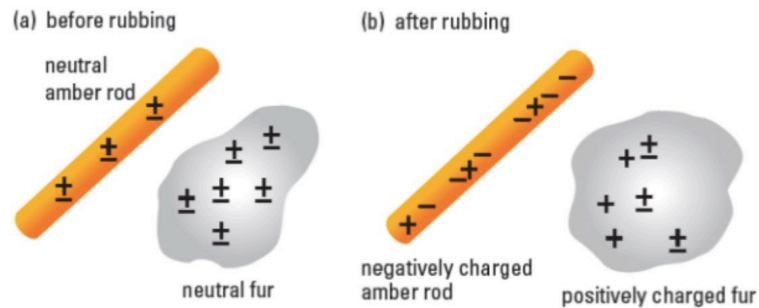
Year 7 Physics Knowledge Organiser- Electricity (2)

Charging objects with friction

Electrical insulators can become charged. An object that is rubbed can become charged by gaining or losing electrons because of the friction force.

An object that loses electrons becomes positive (+).

An object that gains electrons becomes negative (-).

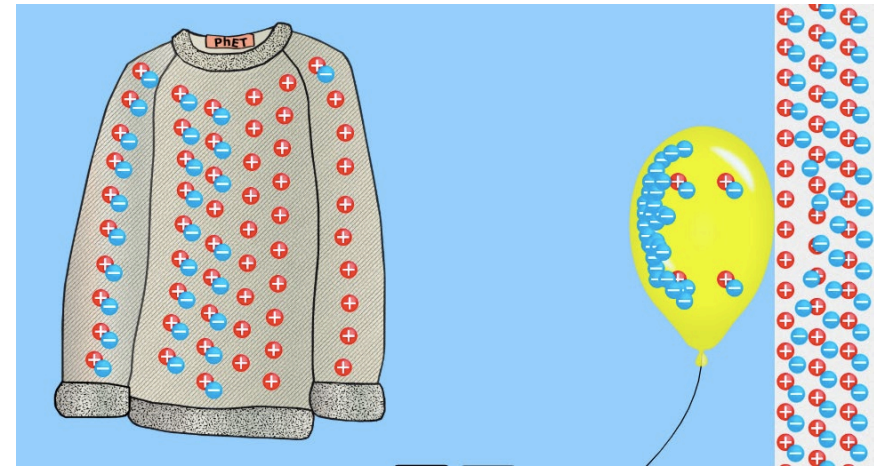


Discharge is when an object loses its charge when it is transferred to another object or to the ground.

Charge will move along field lines and can cause sparks.

Charged objects and forces

A charged object can be attracted to a neutral object. This is due to the movement of negative charges near the surface.

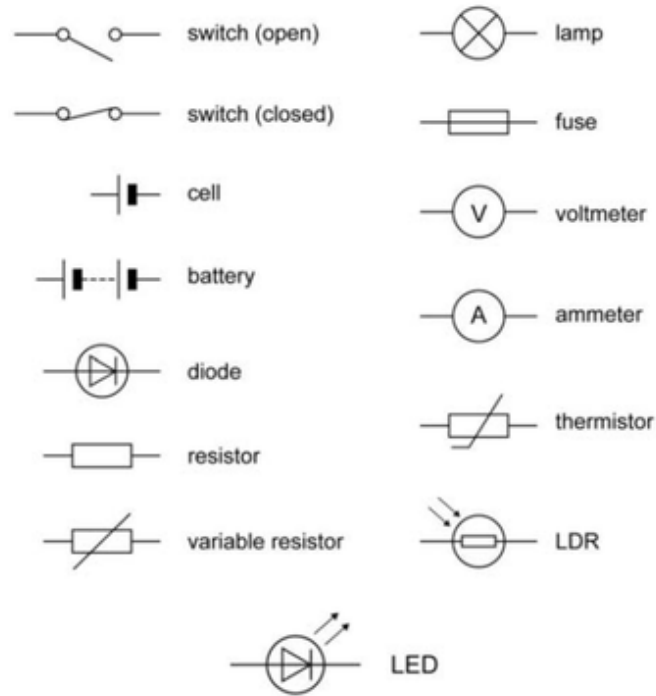


- 1) The balloon can be charged by rubbing on the jumper.
- 2) Electrons transfer to the balloon making it negative.
- 3) As the balloon is brought close to the wall, negative electrons in the surface of the wall are repelled.
- 4) This makes the surface of the wall slightly, positively charged.
- 5) The negative balloon is attracted to the slightly positive wall and it sticks to the wall.

Key Terms	Definitions
Electrical insulator	A material that prevents the flow of electrons.
Electrical conductor	A material that allows the flow of electrons.
Attract	Force that pulls two objects together.
Repel	Force that pushes two objects apart.

Year 7 Physics Knowledge Organiser: Electricity (3)

Circuit symbols

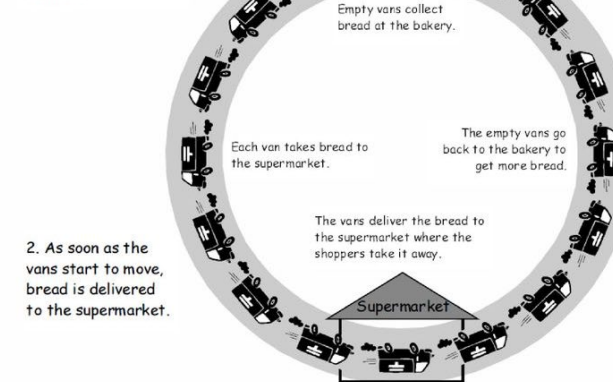


Key term	Definition	Analogy
Charge	Property of an electron.	Van.
Energy	Electrical energy carried by charge.	Bread.
Current	Rate of flow (speed) of charge.	Speed of vans.
Potential difference	The energy per unit of charge.	Number of loaves of bread in each van.
Resistance	Opposes the current (slows it down).	Slows down the speed of the vans.

Bread van analogy

Analogy – A story used as an explanation

1. The bakery manager loads the bread onto the vans and sends them off.



3. All the vans move at the same speed.

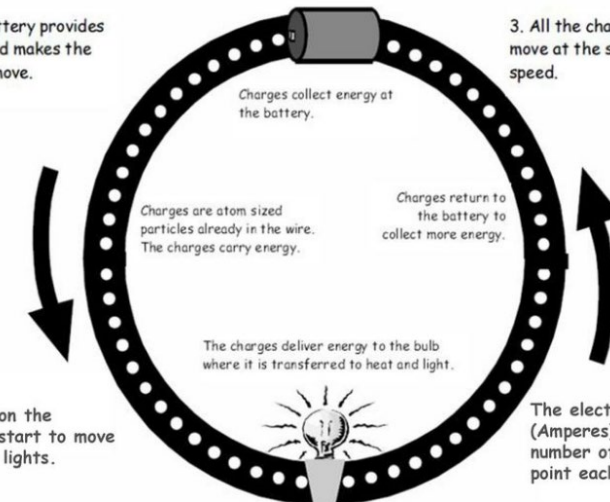
2. As soon as the vans start to move, bread is delivered to the supermarket.

4. If the vans travel faster, more bread is delivered to the supermarket in a certain time.

5. If the manager loads more bread on to each van, more bread is delivered to the supermarket in a certain time.

©

1. The battery provides energy and makes the charges move.



3. All the charges move at the same speed.

2. As soon the charges start to move the bulb lights.

The electric current (Amperes) reflect the number of charges passing a point each second.

4. If the charges move faster, more energy is transferred to the lamp in a certain time.

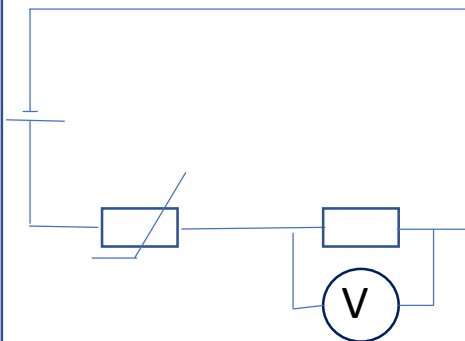
5. If more energy is carried by each charge, more energy is delivered to the bulb in a certain time.

Year 7 Physics Knowledge Organiser: Electricity (4)

Key term	Definition
Electrical conductor	A material with a low resistance that allows charge to flow.
Electrical insulator	A material with a high resistance that does not allow charge to flow.
Series circuit	Circuit with a single loop.
Parallel circuit	Circuit with two or more loops.
Light dependant resistor (LDR)	Decreasing resistance as light level increases
Thermistor	Decreasing resistance as temperature increases

Equation	Meanings of terms in equation
$V = I R$	<i>Potential difference (Volts) = Current (Amps) x Resistance (Ohms)</i>

Sensing circuit

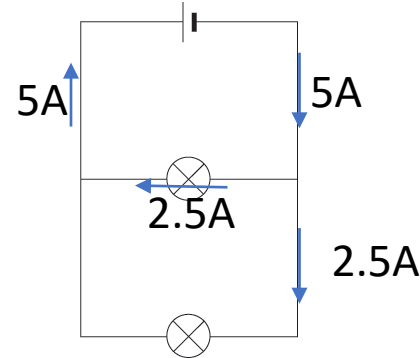


As the temperature increases, the resistance of the thermistor decreases and the voltmeter reading increases.

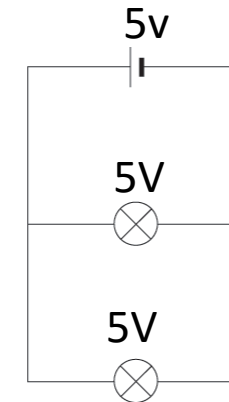
Sensing circuits can be used in applications such as heating control systems and dusk to dawn lights.

Parallel circuit laws

Current flowing into a junction in a parallel circuit must be equal to current flowing out of it.

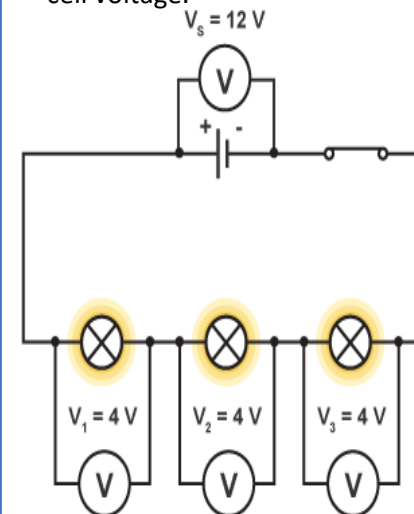


Potential difference of the cell/battery is the same on every branch.

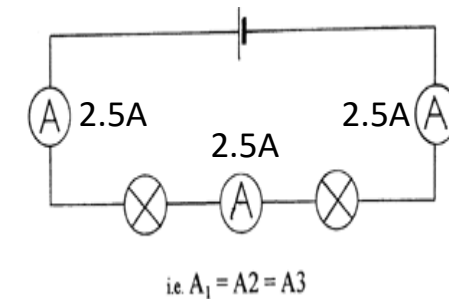


Series circuit laws

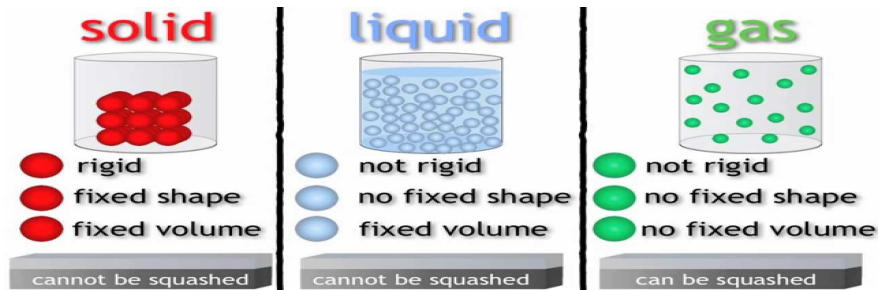
The sum of the voltages in a series circuit is equal to the cell voltage.



The current in a series circuit is the same at any point in the circuit.



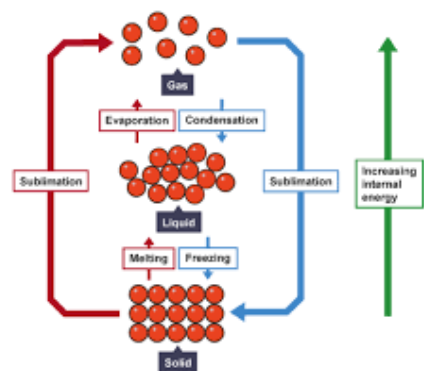
Particles in states of matter



Rows & columns
Low energy
Vibrate

Move randomly
Always touching
Medium energy

Move randomly
Bounce off other particles
High energy



Changes of state (evaporate, melt, freeze, condense) happen when enough energy is added or taken away, affecting the movement of the particles
Problems with the particle model: (1) can't show energy (2) particles aren't solid spheres

Pure and Impure Substances

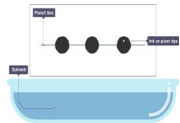
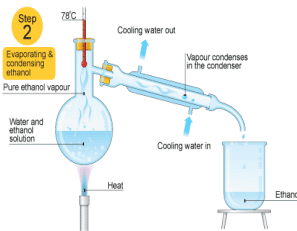
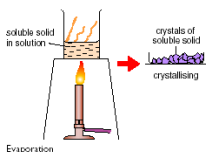
- A pure substance contains only one type of **element** or **compound**.
- An impure substance** contains more than one type of element or compound in a mixture, for example salt water contains NaCl and H₂O. All mixtures are impure substances.
- Mixtures are much easier to separate than elements or compounds as they are not chemically bonded
- There are a variety of ways that mixtures can be separated and they are outlined below. Remember that these are all physical changes and chemical bonds are not broken during any of these processes.

Separation Techniques

Impure	A mixture of more than one compound or element
Pure	Contains only one compound or element
Filtration	Method of separating a solid from a liquid: Solid particles are too large to pass through the filter paper
Evaporation	Method of separating a liquid from a solid. Heat is used to boil the liquid until it evaporates, leaving the solid behind
Fractional Distillation	Method of separating two different liquids, e.g. water and alcohol. Heat both, collect and cool the liquid that evaporates first (lower boiling point)
Chromatography	Separation technique based on colours. Different dyes are carried by a solvent (e.g. water) for different distances as spread out. Distance the dye has travelled can then be calculated and compared to the distance the solvent travelled to work out an R _f value; each part of a dye will have a different R _f value.

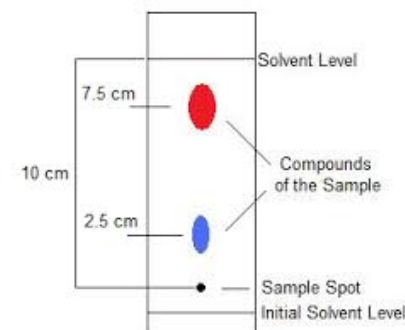
Key Terms	Definitions
Pure	A substance made of only ONE type of element or compound
Impure	A mixture of elements and/or compounds
Chromatography	A technique where mixtures can be separated based on their solubility.
Distillation	A separation technique which means a mixture of two liquids is heated
Crystallisation	Method of mixture separation where a solvent is evaporated, leaving the solute behind.
Retention Factor	The ratio between the distance travelled by the substance and the distance travelled by the solvent.
$R_f = \frac{B}{A}$	<i>R_f = Retention Factor (no units)</i> <i>B = Distance travelled by substance (cm)</i> <i>A = Distance travelled by solvent (cm)</i>

Separating Impure Substance

Name	Diagram	Explanation
Chromatography		<ul style="list-style-type: none"> Different substances travel different distances up the paper depending on their solubility in the solvent used (it is often water but not always). The more soluble, the further it moves up the paper Line must be drawn with pencil because pencil will not run. Artificial colours in foods can be identified using chromatography. Additives do not necessarily have a colour and therefore are identified using chemical analysis.
Distillation		<ul style="list-style-type: none"> Distillation is when two liquids with <i>different boiling points</i> are separated For example ethanol (alcohol) boils at 78 °C and water boils at 100 °C If you heat a mixture of water and ethanol to 80°C the ethanol will evaporate but the water will not. You then condense the ethanol and collect the pure ethanol
Crystallisation		<ul style="list-style-type: none"> Crystallisation is when a solvent is evaporated from a solute. The evaporation should happen until the solution is saturated (has as much solid dissolved in the solution as possible). The solution should be allowed to cool, as the solution cools crystals will grow. The crystals can then be separated and dried.

Chromatography and Rf values

- When carrying out chromatography we can calculate an Rf (retention factor) value/
- The retention factor is a ratio between the distance travelled by the solvent and the distance travelled by a compound.
- Chromatography has two phases- a stationary phase where particles can't move (the filter paper in most cases), a mobile phase where particles can move (a solvent for example water).
- Different compounds will have different Rf values in different solvents, this allow us to see whether a substance is pure or impure.
- To calculate Rf value you need to divide the distance moved by the solvent by the distance moved by the spot.
- For example to work out the Rf for the spot further up the paper:
- $Rf = \frac{B}{A}$ $Rf = \frac{7.5}{10} = 0.75$
- There are no units as the answer is a ratio
- The higher the Rf the further the spot has moved up the paper, compared to the solvent.



YR 7 ART AND DESIGN *KNOWLEDGE ORGANISER Hundertwasser*

In Art and Design you are assessed on everything you do in class. There are 4 assessment objectives.

A01 LOOKING AT THE WORK OF ARTISTS - RESEARCH

In each project you will look at and analyse the work of an artist or art movement. In project two you will look at Friedensreich Hundertwasser. This research will help you produce your own work.

A02 EXPERIMENTING WITH MATERIALS

You will be given the opportunity to experiment with materials and techniques. You will be expected to select appropriate resources, materials, techniques and processes.

A03 DRAWING AND RECORDING

You will learn how to successfully blend and mix colours using a range of materials including colour pencil, Ink and Paint. You will be introduced to basic colour theory using the Colour wheel.

A04 PRODUCING A FINAL PIECE

At the end of the project you will present a final piece of work. This may be a painting, a series of prints or a mixed media piece.

KEYWORDS AND KEY TERMS FOR THIS PROJECT



Friedensreich Hundertwasser
Austrian artist, born in Vienna 1928.



Primary colours

Red
Blue
Yellow

Secondary colours

Orange (Y+R)
Green (Y+B)
Purple (R+B)

KEY TERMS

Architect – a person who designs buildings

Environmentalist – a person who is concerned with protecting the environment.

Graphic Designer - a person who combines text and pictures in advertisements, magazines, or books.

Landscape - all the visible features of an area of land

Collage - a piece of art made by sticking various different materials such as photographs and pieces of paper or fabric on to a backing.

Construct - to build something or put together different parts to form something whole.



In Food technology you are assessed on everything you do in class. There are 2 assessment objectives.

Assessment one (L01) Healthy living - Understand the importance of nutrition in the diet.

Healthy living is the key to good health. The 'Eatwell guide' is a guide produced to help people choose what to eat to maintain a balanced diet. The information helps when planning balanced meals and making healthy choices. You will also be looking at the different nutrients needed by the body and the effects of deficiency and excess of Macro-nutrients.

Assessment two (L03) Be able to cook dishes safely and hygienically

You will learn a range of techniques such as 'Bridge and Claw' (method of cutting safely), zesting, melting, grilling and using the oven. You will be shown how to work safely and hygienically to make successful dishes. You will be able to explain the difference between personal and food hygiene.

KEYWORDS AND KEY TERMS

- | | | |
|---|---|--|
| <input type="checkbox"/> Balanced diet | <input type="checkbox"/> Fibre | <input type="checkbox"/> Personal Hygiene |
| <input type="checkbox"/> Healthy living | <input type="checkbox"/> 5 a day | <input type="checkbox"/> Food Hygiene |
| <input type="checkbox"/> Eatwell Guide | <input type="checkbox"/> Grilling | <input type="checkbox"/> Contaminate |
| <input type="checkbox"/> Nutrients | <input type="checkbox"/> Recipes | <input type="checkbox"/> Cross-contamination |
| <input type="checkbox"/> Nutrition | <input type="checkbox"/> Baking | <input type="checkbox"/> Food poisoning |
| <input type="checkbox"/> Protein | <input type="checkbox"/> Melting method | <input type="checkbox"/> Danger Zone |
| <input type="checkbox"/> Carbohydrates | <input type="checkbox"/> Portion size | <input type="checkbox"/> Bacteria |
| <input type="checkbox"/> Fat | <input type="checkbox"/> Shaping | <input type="checkbox"/> Salmonella |
| <input type="checkbox"/> Vitamins | <input type="checkbox"/> Garnishing | <input type="checkbox"/> E-Coli |
| <input type="checkbox"/> Minerals | <input type="checkbox"/> Hygiene | <input type="checkbox"/> Temperature probe |

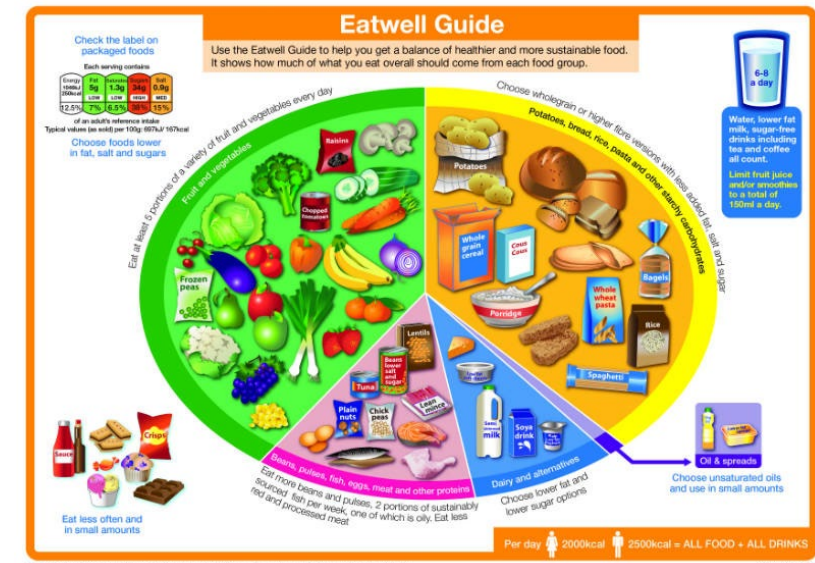
Recipes:

Cous Cous Salad
Healthy Pizza Bread
Sweet or savoury Muffins
Oat Cookies
Sweet or savoury scones



Useful websites to embed learning

www.bbcgoodfood.co.uk
www.deliaonline.co.uk
www.bbcbitessize.co.uk



Food groups

The foods we eat come from animals, such as meat, honey, milk, fish and eggs, and plants, such as grains, fruit, beans and vegetables. It is important to eat a healthy, balanced diet so that our bodies work properly. Below are the different food groups and how many we should eat each day.



Fruit and vegetables contain vitamins and minerals, which help us to stay healthy.



Carbohydrates give us energy. They are found in wholegrain cereals and breads, potatoes, pasta and rice.



Dairy and alternatives are a good source of energy. They are found in milk, yoghurt and cheese.



Proteins helps our bodies to grow and repair. They are found in meat, fish, eggs, beans and nuts.



Fats and oils give us energy and help to keep us warm. They are found in butter, oils and spreads.



Foods high in sugar and salt should be eaten less often as they are not needed as part of a healthy diet. They are found in fizzy drinks and chocolate.

Glossary

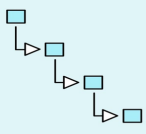
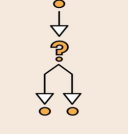
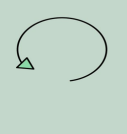




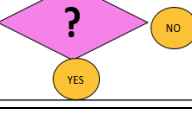




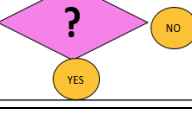




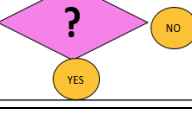
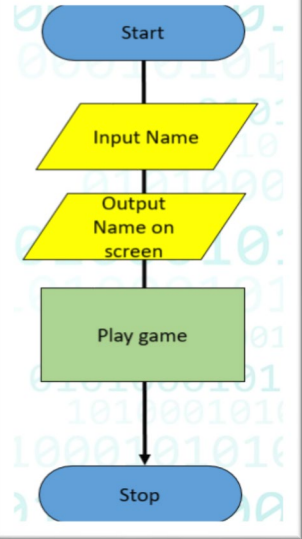
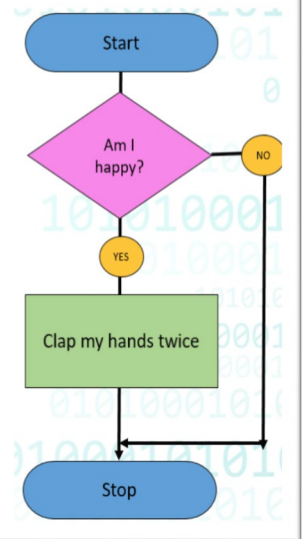
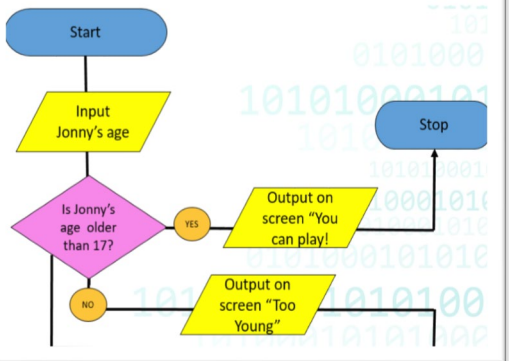
Celsius	A unit to measure temperature.
diet	The food and drink that a person or animal eats regularly.
dissolve	When a solid mixes with a liquid and can't be seen anymore.
float	To stay on the surface of a liquid.
freeze	To change a liquid into a solid by cooling.
liquid	Something that can be poured easily, takes the shape of its container and can't be held.
melt	To change a solid into a liquid by heating.
mixture	A substance made by mixing solids and liquids.
solid	Something that stays in one place and can be held.
substance	A solid, liquid, powder or gas of a particular kind.

Don't forget! When preparing, cooking or eating food, it's important to wash your hands and store food properly. This is important to make sure the food you eat is safe and free from germs.

Year 7 Computer Technology

Term 2.1

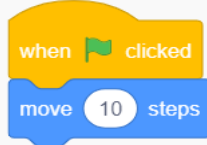
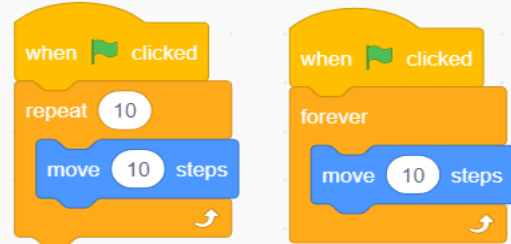
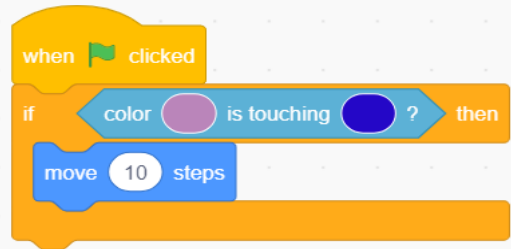
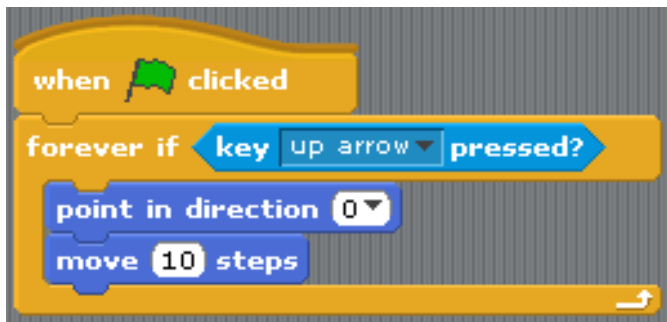

Unit: Algorithms

Keyword	Definition	Keyword	Definition																	
Algorithm	An algorithm is a set of steps used to solve a problem.	Programming Constructs	A programming construct is a way of building a program.																	
Programming Constructs	<div><div>SEQUENCE </div><div>SELECTION </div><div>ITERATION </div></div> <p>Sequence: Set by step instructions to complete a task. Selection: Making a decision based on the condition that is met. It uses IF or ELSE. Iteration: Repeating in a loop.</p>																			
Flowchart Shapes	<table><tr><th>Name</th><th>Symbol</th><th>Flowchart use</th></tr><tr><td>Start/ Stop</td><td></td><td>This is used at the start and at the end of a program to start and stop the program.</td></tr><tr><td>Flow line</td><td></td><td>This shows which way the logic flows in the program. (It can go in more than one direction)</td></tr><tr><td>Input</td><td></td><td>Shows an input (key board press, mouse click, can you think of any others?) or an output (printer, speakers, can you think of more?)</td></tr><tr><td>Process</td><td></td><td>This is something that needs to happen. (e.g. Stir the ingredients together. Spread the jam on the bread, move the sprite to the left.)</td></tr><tr><td>Decision</td><td></td><td>This is selection, this means the program can choose to done thing or another based on the question in the diamond. (e.g. Is the bath water too hot? (YES = add more cold water and NO = move on to the next part of the algorithm)</td></tr></table>	Name	Symbol	Flowchart use	Start/ Stop		This is used at the start and at the end of a program to start and stop the program.	Flow line		This shows which way the logic flows in the program. (It can go in more than one direction)	Input		Shows an input (key board press, mouse click, can you think of any others?) or an output (printer, speakers, can you think of more?)	Process		This is something that needs to happen. (e.g. Stir the ingredients together. Spread the jam on the bread, move the sprite to the left.)	Decision		This is selection, this means the program can choose to done thing or another based on the question in the diamond. (e.g. Is the bath water too hot? (YES = add more cold water and NO = move on to the next part of the algorithm)	
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Flowchart examples	<div><p>Sequence</p></div> <div><p>Selection</p></div> <div><p>Iteration</p></div>																			

Year 7 Computer Technology

Term 2.2

Unit: Programming

Keyword	Definition	Keyword	Definition
Scratch	Scratch is a visual programming language based on blocks of code.	Algorithm	A set of step by step instructions to solve a problem.
Programming Constructs	<p>When programming, we use three programming constructs.</p> <p>Sequence: Set by step instructions to complete a task.</p> <p>Selection: Making a decision based on the condition that is met. It uses IF or ELSE.</p> <p>Iteration: Repeating in a loop.</p>	Programming Construct Key Blocks Examples	<div><p><i>Sequence</i></p></div> <div><p><i>Iteration</i></p></div> <div><p><i>Selection</i></p></div>
Programming Constructs	Iteration: Forever if loop with key controlled movement (using keyboard keys)		
Forever if			
Selection			

Knowledge Organiser: Year 7 Dance



Key words

Choreography - the making of a dance. The dance

Choreographer - the creator of the dance

Motif - A series of dance actions put together to create a phrase

Improvisation - Making movements up on the spot

Repetition - to perform an action again

Transitions - links between dance phrases or sections

Stylistic feature - a characteristic technique that makes it stand out from other styles of Dance



The Ingredients of Dance (RADS)

R	<p><u>Relationships</u> WITH WHOM you are dancing with</p> <p>The interaction between a group of dancers</p> <p><u>Examples of relationships:</u> UNISON: Dancing the same action at the same time CANON: Dancing one after the other, creating an overlap or ripple effect MIRROR IMAGE: One or more dancers use the other side of the body to create a mirror type effect</p>
A	<p><u>Actions</u> WHAT the body is doing</p> <p>A movement</p> <p><u>Six categories:</u> Gesture Locomotion/travel Elevation/Jump Falling/Weight transference Turning Stillness/Balance</p>
D	<p><u>Dynamics</u> HOW the body is moving</p> <p>The force and speed of a movement</p> <p><u>Examples of different dynamics:</u> Fast Slow Sharp Mechanical Explosive</p>
S	<p><u>Space</u> WHERE the body is moving</p> <p>The area around a dancer. This could be personal or general space</p> <p><u>Examples of space:</u> LEVELS: The height of the action. E.g. High, medium and low FORMATIONS: Where the dancers stand in a shape.</p> <div style="text-align: center;"> </div> <p>DIRECTIONS: Where the dancers go. E.g. forwards, backwards, right, left, up, down and diagonally PATHWAYS: The patterns created on the floor.</p> <div style="text-align: center;"> </div>

Performance skills

TECHNICAL SKILLS (to do with the body)

POSTURE	The way the body is held when sitting, standing or lying.
FLEXIBILITY	The range of movement around the joints
CONTROL	Performing the movements with strength to hold positions and not fall out of them
CO-ORDINATION	Moving two different body parts at the same time in opposite directions
MOVEMENT MEMORY	Remembering the order of the movements
SPATIAL AWARENESS	Knowing where you are in the space and not colliding with anyone
STAMINA	Being able to keep high energy throughout without tiring
STRENGTH	The force your muscles exert to hold a position for a long time
BALANCE	Put weight on a specific part of the body without falling or wobbling



EXPRESSIVE SKILLS (how you perform it)

FOCUS	Use of the eyes looking in a specific direction
PROJECTION	Extending the movement with energy
MUSICALITY	Being in time with the beat in the music and the other dancers
FLUIDITY	Smooth transitions from one movement to another to allow them to flow effectively together
SENSE OF STYLE	This is about the dancer trying to emulate the distinctive actions and qualities of the dance

Key Words

Stock Characters: Characters that appear in every story

Villain: The evil/bad character e.g. the wicked stepmother

Hero: The male lead character who saves the day e.g. Aladdin

Heroine: The female lead character. Always kind but always gets into some sort of trouble e.g. Cinderella

Dame: An over the top female character played by a man e.g. The Ugly Step Sisters

Side kick: The friend of the Heroine who speaks the most to the audience e.g. Buttons

Participation: The audience get involved e.g. 'He's behind you!'

Fourth Wall: An invisible wall that is a bit like a TV screen when you are watching a performance on stage.



Pantomime

Knowledge Organiser

Drama

What you NEED to know

- Pantomime is a British creation. Most people in other parts of the world have never heard of it.
- It has become a Christmas tradition to go to the theatre and watch a pantomime
- They are nearly always based on fairytales or old stories for children e.g. Cinderella, Peter Pan, Dick Whittington or Aladdin
- They ALWAYS have a happy ending
- The full show will include music and dancing as well as jokes.

Historical Context

- The Romans were one of the first to bring Pantomime to Britain. They got it from the Greeks who performed songs and dances using masks.
- In the Middle Ages, folk stories were performed around villages with jokes and songs. These were called Mummers plays and also helped develop the Pantomime we know today.
- Lastly, in Italy they performed funny stories with stock characters called Commedia Dell'Arte. This is the last big influence on modern Pantomime.
- Fairy tales were always spoken rather than written so they differ around the world. Traditionally they are not as nice as the children's stories we know today!

Assessment and Criteria

- Practical Devised Performance
- Create your own pantomime based on a fairy tale of your choice.
- You should have ALL stock characters
- There should be one form of audience participation: Call and response or 'He's behind you',
- The side kick should talk to the audience
- Start and end with a tableau
- All physical and vocal skills should be big and over the top
- The staging should be spread out
- Face the audience

Key Words

Atmosphere: A feeling created for the audience

Characterisation: Creating a character for the performance

Dialogue: Speech

Downstage: Front of the stage

End On: Traditional theatre- audience sitting one end and stage the other

Hot Seat: Way of interviewing a character to find out about their character to make them more believable

Intentions: What your character wants to do in a scene or story

Monologue: One person speech with others on stage

Soliloquy: One person speech with no one else on stage

Stage Directions: Tells the actors what to do or how to say something. Usually in italics or brackets

Stage Left: Actor's left on stage

Stage Right: Actor's right on stage

Subtext: The meaning behind what someone is saying

Upstage: Back of the stage

Upstage Right (USR)	Upstage (US)	Upstage Left (USL)
Stage Right (SR)	Centre Stage (CS)	Stage Left (SL)
Downstage Right (DSR)	Downstage (DS)	Downstage Left (DSL)

Naturalistic Script

Knowledge Organiser

Drama



What you NEED to know

- Script writers are often known as playwrights
- In order to make a character believable, you need to create a full story for them. This includes a past- almost like a social media profile.
- You do not speak the stage directions in a naturalistic script. Ever. Not even as a narrator. Don't do it.

Assessment and Criteria

- Practical Scripted Performance and character log
- Perform a scene from the play you have been studying.
- You should have a believable character
- There should be physical and vocal skills to help to create your character and create the right atmosphere for the audience
- The staging should be spread out with you facing the audience
- Start and end with a tableau
- The character log should give me detail on the background of the character as well as show me how you plan to use your physical and vocal skills to perform this.

Historical Context

- People have been writing scripts ever since we have been writing. In Greek times, there were 4 main script writers: Aristophanes, Euripides, Sophocles and Aeschylus
- Naturalism was developed by a man called Stanislavski. You will learn more about him in Year 8

1	Moi, comme passe-temps, j'adore jouer au foot	1	Me, for hobbies, I love playing football
2	parce que je le trouve très amusant.	2	because I find it very fun.
3	J'aime aussi danser parce que la musique, c'est ma passion.	3	I like also dancing because music, it's my passion.
4	Par contre, ce que je déteste, c'est faire du vélo, c'est si ennuyeux !	4	However, what I hate is cycling, its so boring!
5	Quand j'étais plus jeune,	5	When I was younger,
6	j'adorais jouer au basket, pour moi, c'était chouette	6	I used to love playing basketball, for me, it was great
7	mais maintenant je pense que c'est nul et	7	but now I think that it's rubbish and
8	je préfère faire de la natation car c'est plus relaxant.	8	I prefer swimming because it's more relaxing
9	Le weekend, je reste à la maison avec ma famille où	9	At the weekend, I stay home with my family where
10	normalement on regarde des films ou on joue sur la console ensemble.	10	usually we watch films or play on the games console together.
11	Le weekend prochain je vais faire de l'escalade avec mes parents.	11	Next weekend, I am going to do climbing with my parents.
12	À mon avis ça sera un peu effrayant mais passionnant.	12	In my opinion it will be a little bit frightening but exciting.
13	Dans le futur, je voudrais faire du surf	13	In the future, I would like to do surfing
14	puisque j'adore les sports aquatiques.	14	as I love water sports.

Model answer

- Which hobbies do you like and why?
- What did you like to do when you were younger?
- What do you do at the weekend?
- Which hobbies will you do next weekend/in the future?

Yr 7 FRENCH
MON TEMPS LIBRE

<div><div>Hobbies (infinitives)</div><div>faire du skate to do skate boarding</div><div>faire de l'équitation to do horse riding</div><div>faire de l'escalade to do climbing</div><div>faire du judo to do judo</div><div>faire de la musculation to do weights</div><div>faire de la natation to do swimming</div><div>faire des randonnées to do walks/hikes</div><div>faire du vélo to do cycling</div><div>faire de la voile to do sailing</div><div><i>(In English, sometimes we say 'to go' swimming etc. In French the verb is 'to do')</i></div><div>jouer aux cartes to play cards</div><div>jouer aux échecs to play chess</div><div>jouer à la pétanque</div><div>jouer au tennis to play tennis</div><div>jouer aux jeux vidéos to play video games</div><div>danser to dance</div><div>écouter de la musique to listen to music</div><div>lire to read</div><div>regarder la télévision to watch TV</div><div>Examples</div><div>J'adore jouer au tennis. I love playing/to play tennis.</div><div>J'aime danser. I like to dance/dancing.</div></div>	<div><div>Hobbies (nouns)</div><div>le baby-foot table football</div><div>le basket basketball</div><div>le foot football</div><div>le rugby rugby</div><div>le volley volleyball</div><div>la danse dancing</div><div>la lecture reading</div><div>la musique music</div><div>la natation swimming</div><div>le patin skating</div><div>la skate skateboarding</div><div>Examples</div><div>J'adore le tennis. I love tennis.</div><div>J'aime la danse. I like dancing.</div></div>	<div><div>Giving Opinions</div><div>Je préfère I prefer</div><div>J'adore I love</div><div>J'aime I like</div><div>Je n'aime pas I don't like</div><div>Je déteste I hate</div><div>J'ai horreur de I can't stand</div><div>C'est ma passion It's my passion</div><div>Ce que j'adore, c'est What I love, is</div><div>Ce que je déteste, c'est What I hate, is</div><div>Selon moi In my opinion</div><div>À mon avis In my opinion</div><div>Je le trouve I find it</div><div>Je pense que I think that</div><div>C'est It is</div></div>	<div><div>Intensifiers</div><div>un peu a little bit</div><div>assez quite</div><div>plus more</div><div>très very</div><div>trop too</div><div>vraiment really</div><div>Conjunctions</div><div>aussi also</div><div>car because</div><div>cependant however</div><div>et and</div><div>mais but</div><div>ou or</div><div>parce que because</div><div>puisque since, as</div></div>	<div><div>Adjectives</div><div>😊</div><div>amusant fun</div><div>chouette cool</div><div>génial great</div><div>formidable terrific</div><div>incroyable incredible</div><div>passionnant exciting</div><div>relaxant relaxing</div><div>😞</div><div>affreux awful</div><div>ennuyeux boring</div><div>effrayant frightening</div><div>fatigant tiring</div><div>moche rubbish</div><div>nul bad</div></div>								
<div><div>Using Time Frames</div><table><tr><th>Past</th><th>Present</th><th>Future</th><th>Conditional</th></tr><tr><td>Quand j'étais plus jeune... When I was younger... J'aimais... I used to like... J'adorais... I used to love... Je détestais... I used to hate... + infinitives (jouer, faire etc.)</td><td>Normalement Usually Quelquefois Sometimes Parfois Sometimes Souvent Often Le soir In the evening Le weekend At the weekend J'écoute I listen to Je joue I play Je fais I do Je regarde I watch Je vais I go</td><td>Le weekend prochain Next weekend La semaine prochaine Next week Demain Tomorrow Dans le futur In the future Je vais + infinitive I am going... Ça sera It will be Ça va etre It will be</td><td>A l'avenir In the future Je voudrais... I would like... + infinitive <i>e.g. Je voudrais jouer</i> <i>I would like to play</i> Ça serait It would be</td></tr></table></div>					Past	Present	Future	Conditional	Quand j'étais plus jeune... When I was younger... J'aimais... I used to like... J'adorais... I used to love... Je détestais... I used to hate... + infinitives (jouer, faire etc.)	Normalement Usually Quelquefois Sometimes Parfois Sometimes Souvent Often Le soir In the evening Le weekend At the weekend J'écoute I listen to Je joue I play Je fais I do Je regarde I watch Je vais I go	Le weekend prochain Next weekend La semaine prochaine Next week Demain Tomorrow Dans le futur In the future Je vais + infinitive I am going... Ça sera It will be Ça va etre It will be	A l'avenir In the future Je voudrais... I would like... + infinitive <i>e.g. Je voudrais jouer</i> <i>I would like to play</i> Ça serait It would be
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Key terminology

Birth rate – How many people are born per 1000

Death rate – How many people die per 1000

Life Expectancy – How long the average person live for

HIC – High Income Country (very developed)

NEE – Newly Emerging Economy (developing)

LIC – Low Income Country (not very developed)

Population distribution – Where people live

Economically active – People who are working

Dependent population – People who are not working

Economy – Linked to money and jobs

Social – linked to people

Environmental - Linked to the natural environment

Urban – A built up, densely populated area (e.g. a city)

Rural – An area that is not built up, sparsely populated (e.g. countryside)

Migration - Movement

Push factor – Something that makes you want to leave an area

Pull Factor – Something that makes you want to move to an area

National – Within a country

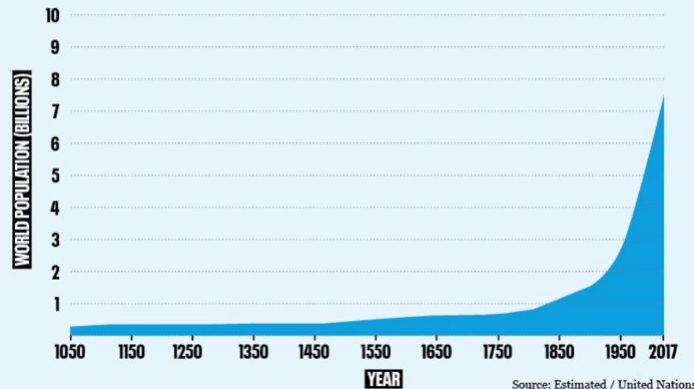
International – Between countries

Ageing population – large proportion of older people in population

Youthful population – large proportion of younger people in population

1 - World Population Growth

HUMAN POPULATION GROWTH

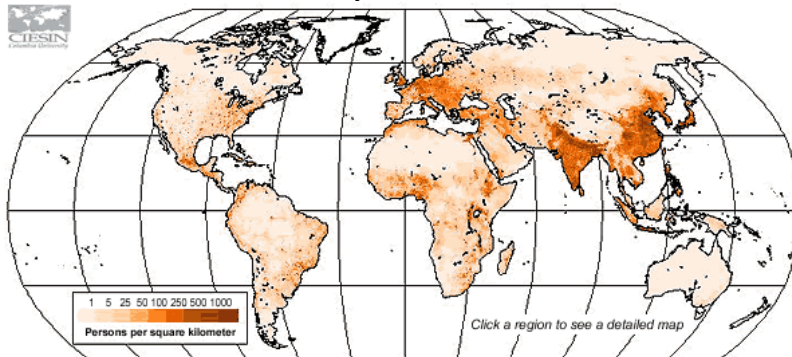


Reduced death rate
Increased birth rates

Reasons:

- Improvements in medicine e.g. vaccinations and free healthcare systems
- Improvements in standard of living e.g. better shelter
- Access to food
- Access to water
- Reduced threats from the environment
- Fertility treatment
- Reduced infant mortality

2 – Global Population Distribution



Reasons:

Sparsely Populated:

Environment e.g. deserts make it hard to grow crops, lack of water

Land locked – make it hard to trade

Mountainous – hard to build on, lack of trade

Densely populated:

Fertile soil – easy to grow crops

Coastal – easy trade routes and food source

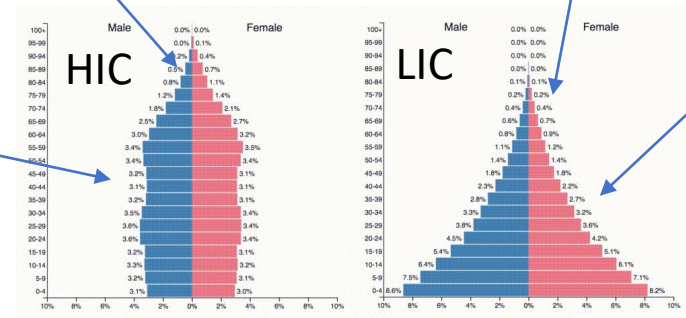
3 – Population Pyramids

Wider top – ageing population (long life expectancies)

Narrow top – Youthful population short life expectancies)

Straight sides – low death rate (people die when older)

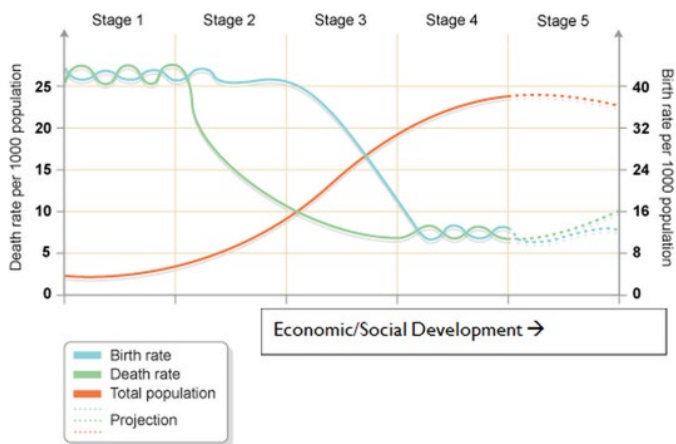
Steeply sloping sides – High death rate



Narrow base – low birth rate

Wide base – high birth rate

4 – Demographic Transition Model



Shows how a country's birth rate, death rate and total population change over time

- Stage 1 – birth and death rate high and fluctuating, total pop. Low
- Stage 2 – death rate begins to fall, birth rate stays high. Natural increase
- Stage 3 – birth and death rate falling. Total population continues to increase.
- Stage 4 – birth and death rate low and fluctuating. High total population
- Stage 5 – death rate begins to increase, birth rate stays low. Natural decrease.

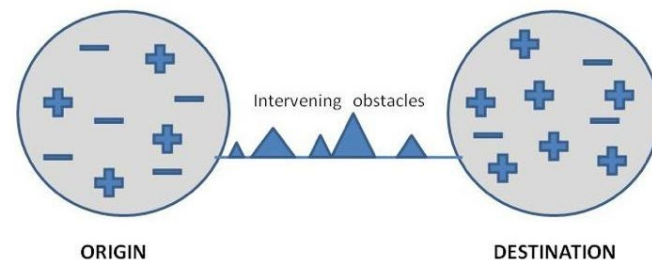
5 – Ageing and youthful populations

	Ageing	Youthful
Causes	Low birth rate – women choosing careers and having children later, expensive, contraceptives Long life expectancy – improved medicine and shelter	High birth rate – lots of young people having children, lack of contraceptives, having children to work Low life expectancy – poor health care facilities and shelter
Impacts	- Strain on health care system - Dependent population	- Strain on schooling - Dependent population

6 – Rural to urban migration

	Rural	Urban
Push	Lack of facilities Isolation Drought Lack of jobs	Crime rates Congestion Lack of space Expensive housing
Pull	Quiet Cheaper housing Larger gardens	High employment Highly paid jobs

7 – Lee's push pull theory



8 – Impacts of Migration

The impact of migration on the host country (UK)	
Advantages	Disadvantages
Overcomes labour shortage	Immigrants are likely to be the first to be unemployed in a recession and so could claim welfare benefits
Businesses can expand and this helps the economy	Perception that the migrants take jobs and cause high unemployment
Prepared to do dirty, unskilled jobs that British no longer want to do	Pressure on housing
Cultural advantages and links	Racial Tension
Some highly skilled migrants	Schools find it difficult to cope with large numbers of pupils who cannot speak English
Keeps inflation down which means prices do not rise.	

Y7 History Knowledge Organiser: Medieval Monarchs


Timeline	
1066	William I becomes king
1120	White Ship Disaster
1153	Treaty of Winchester
1183	Murder of Thomas Becket
1202	French invasion of Normandy
1215	King John signs Magna Carta
1348	The Black Death
1381	The Peasants Revolt

KPI 2 Royal Touch

Appointed by God

Medieval **monarchs** believed that they had been appointed by God.

People in the Middle Ages obeyed the **monarch** because they believed the king or queen was chosen by God to rule over them.

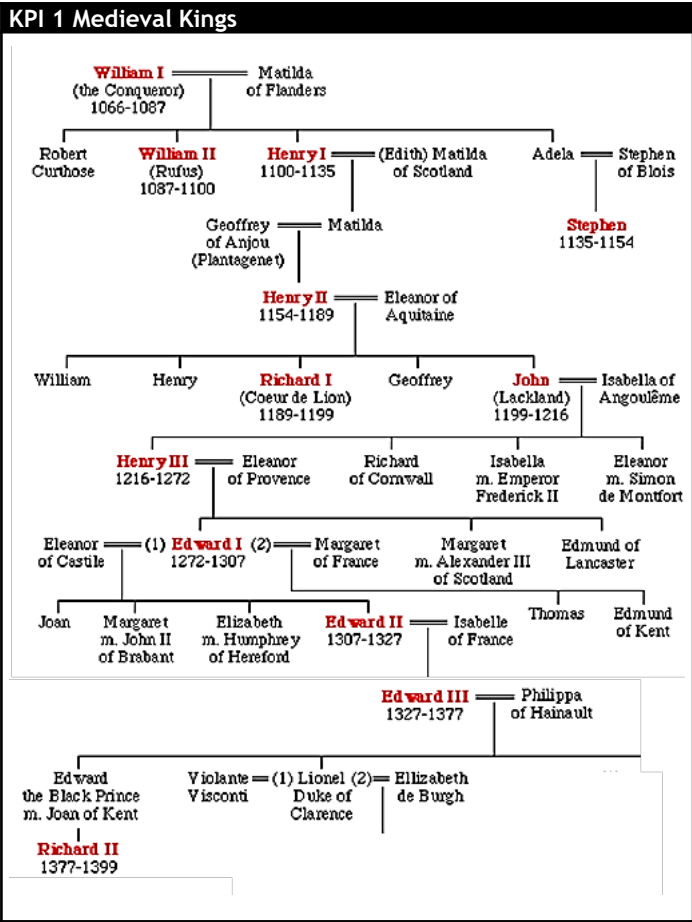


The Royal Touch

This relationship between God and the **monarch** was clear in the Royal Touch.

The Royal Touch was the idea that the monarch's touch could cure a common skin disease called **scrofula**. People believed that monarch's could signal to God to cure the sufferer.

Touch pieces were later used so that the monarch could cure more people.



KPI 3 The Anarchy

The White Ship Disaster

In 1120, Henry I's only **legitimate** son - William - died when his ship sunk in the White Ship disaster.

Henry had no other **legitimate** male heirs so he named his daughter - Matilda - as his **heir**.

However, when Henry died, his nephew - Stephen - **seized** the throne. This began the **Anarchy** - a period of chaos in which Matilda and Stephen competed for the throne.

1135 Stephen **seized** the throne

1139 Matilda invaded England

1141 Stephen defeated at the Battle of Lincoln


Matilda rejected by the people of London

1148 Matilda returned to Normandy


1153 **Treaty of Winchester**: Stephen named Henry, Matilda's son, as his **heir**

1154 Stephen died. Henry II king

The Anarchy revealed that the power of medieval monarchs was based on a wide variety of factors:



Monarchs gained **legitimacy** because they **inherited** their power from a previous monarch



Female monarchs were seen as weak because they could not lead an army into battle



Monarchs could gain power and **legitimacy** by showing their military strength by winning battles



Monarchs needed the support of powerful people, such as the **barons** or the **Pope**



Monarchs needed to be popular. Unpopular monarchs could be rejected or face **rebellion**

KPI 4 The Church

Heaven and Hell

People in the Middle Ages believed that heaven and hell were real places.


After death, they believed, angels would decide if you would spend **eternity** in heaven or hell.

Heaven was the kingdom of Jesus. It was reserved for those who had lived a good life.


Hell was the kingdom of the Devil. Sinners were sent here. Living in hell meant an eternity of pain and suffering.

Getting into Heaven


There were several ways to increase your chances of going to heaven and avoiding hell:



Becoming a **nun** or a **monk** and spending life in a nunnery or **monastery**. Nuns and monks dedicated their lives to God, praying eight times a day and serving their community. The rich often gave money to support **monasteries**.




Earning an **indulgence**. These were certificates that forgave sins. They could be bought or earned by charity work.




Going on **crusade**. Christians and Muslims fought over the holy city of Jerusalem. The **Pope** promised to forgive the sins of crusaders.

Church Hierarchy



The Pope

God's representative on earth. Lived in Rome. Could **excommunicate** kings.




Archbishop of Canterbury

The Pope's representative in England and the most powerful member the Church.



Bishop

The leader of the church in a local area. There were 17 bishops in the Medieval Church, each based at a **cathedral**.




Priest

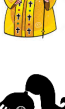
Each town and villages had a priest to run church services.

KPI 5 The Murder of Thomas Becket

In the Middle Ages, it was unclear whether the King had more power than the Church. This was demonstrated in the story of Thomas Becket:




In 1162, Henry II named his friend Thomas Becket as **Archbishop** of Canterbury.



Henry wanted Becket to force priests to use the **King's Courts**, instead of getting away with light punishments in the **church courts**. He also wanted Becket to help him control the bishops.



When Becket refused to do this, the two men fell out. In a rage, Henry shouted "Will no one rid me of this troublesome priest?". A group of knights overheard him and murdered Becket.




Henry was horrified when he heard of Becket's death and ordered **monks** to whip him to show he was sorry.

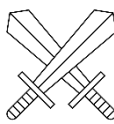
Y7 History Knowledge Organiser: Medieval Monarchs

KPI 6 King John


Why was John unpopular?



John was forced to introduce a new land **tax** to repay money that his brother, Richard I, had borrowed to pay for the **Crusades**.



The French invaded English **territory** in Normandy. John tried to win it back but lost the Battle of Bouvines in 1214. He was nicknamed 'Softsword'



John tried to force the Church to accept his choice for **Archbishop**. In response, the Pope **excommunicated** John and stopped church services in England.

Baron's Revolt 1215

In May 1215, 40 English **barons** rebelled against King John.


With support from the French and Scottish, they formed an army and captured London.

John met the rebels at Runnymede, near London and agreed to **Magna Carta**.


Magna Carta

Magna Carta - or 'Great Charter' - was a document signed by King John limiting the power of kings. It was the first time that a set of rules had been written for the king.


The most important parts:



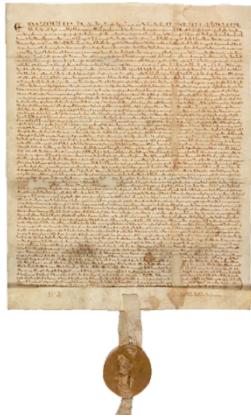
Gave all free men the right to **trial by jury**



Limited the amount of **tax** the barons had to pay




Limited the power of the King over the Church




KPI 7 Peasants Revolt


Why did the peasants revolt in 1381?



Most people in England were **peasants**. They grew all the food but owned no wealth and lived in poverty. They were led by John Ball, a priest who questioned this **inequality**.




In 1348, the **Black Death** killed 50% of the population. The few **peasants** who survived could demand higher wages and this led to increasing tension between rich and poor.




In 1381, the government introduced a new tax - the **poll tax**. Everyone paid the same. The peasants thought it was unfair that a rich man should pay the same as them.


What happened in the peasants revolt?




50,000 **rebel peasants** marched to London and camped on Blackheath, south of the River Thames




The 14 year old king, Richard II, took his barge down the Thames to meet the rebels but turned back when he saw the size of their force




In response to this rejection, the **rebels** attacked the city. They broke in to the Tower of London and executed Sir Robert Hales, the king's unpopular advisor, and the Archbishop of Canterbury.



Richard finally met Wat Tyler, the leader of the rebels, at Smithfield. The king agreed to Tyler's demand for a **Magna Carta** for all people - making all men **equal** under the king.



When Tyler was stabbed and the violence seemed ready to start again, Richard calmed the situation by saying "You shall have no other captain but me." The rebels went back home.



Richard went back on his word. He did not make everyone equal under the king. The leaders of the **rebellion** were **executed**

VOCABULARY	
Archbishop	Leader of the Church in England
Barons	Powerful landowners
Black Death	A deadly disease killing 50% in 1348
Bishop	Leader of the Church in a local area
Cathedral	A large church
Charter	A contract
Church courts	Places where church men were punished
Crusade	Christian war against Islamic forces
Eternity	Forever
Equal	The same
Excommunicate	Expel from the Church
Executed	Killed
Heir	Someone to become king next
Indulgence	A certificate forgiving sin
Inequality	The gap between rich and poor
Inherited	Passed down from a family member
King's Courts	Places where everyone was punished
Legitimate	Proper and right, accepted by everyone
Legitimacy	Being legitimate
Monarch	A king or queen
Monk	A man who gives up his life to God
Nun	A woman who gives up her life to God
Peasants	Landless poor farmers
Poll Tax	Money that everyone had to pay
Pope	The leader of the Church (lives in Rome)
Rebellion	When ordinary people rise up against govt
Rebels	People who are rebelling
Tax	Money paid to the government
Territory	Land
Trial by jury	When ordinary people decide what happens
Scrofula	A skin disease
Seized	Taken control of
The Anarchy	Period of chaos
Touch Pieces	Coins that had been touched by the King
Treaty	An agreement to stop fighting

Y7 History Knowledge Organiser: Islamic Science

KPI 1 Ibn al-Haytham

Scientific Advance


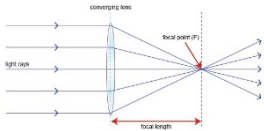
Al-Haytham was a pioneer of the science of **optics**.
He worked out how the eye focusses and how light works.
He was amongst the first to use the **scientific method**, using experiments to prove theories rather than just relying on ancient philosophy and religion.
His **camera obscura** experiment proved that light travels in a straight line.

Motivation

Al-Haytham believed that studying the natural world would bring him closer to God.
He said:





Impact

Al-Haytham's work was translated into **Latin and Greek**.
His research led to the development of cameras and glasses.













"For gaining closeness to God, there is no better way than that of searching for truth and knowledge."

KPI 2 Islam and Science

Feature of Islam...	Impact on science...
<div>Prayer</div> 	Muslims pray towards Mecca 5 times a day, at dawn, midday, afternoon, sunset, and night
<div>Qu'ran</div> 	The Qu'ran is the Muslim holy book. It is written in Arabic .
<div>Hadith</div> 	The Hadith are a the teachings of Muhammad , the most important prophet of Islam.
<div>Eid</div> 	Eid is an important religious holiday. Eid begins on a different day each year, depending on the moon.

KPI 3 Astrology

Scientific Advance	Motivation	Impact
<div><p>Astrolabes The astrolabe was a handheld device developed in the Islamic World during the Middle Ages.</p><p>How does it work? The astrolabe works by stereographic projection - this means the stars are projected onto the brass plate. During the day time, the astrolabe can be lined up with the sun in order to measure the exact time. During the night, the astrolabe can be lined up with the stars for navigation.</p></div>	<div><p>The astrolabe was essential for practicing Islam. At any time of day or night, Muslims could work out:</p><ul style="list-style-type: none">- When to pray- The direction of Mecca</div> <div><p>The astrolabe could also be used to work out the timing of religious festivals such as Eid</p></div> <div><p>The astrolabe could be used for navigation by the stars. Navigation was difficult in a featureless desert or at sea and it was too hot to travel during the day.</p></div> <div><p>Astrolabes could used to measure the height buildings which was crucial in surveying.</p></div>	<div><p>The astrolabe had a significant impact:</p><p>It allowed a sophisticated understanding of astrology. Stars, such as Altair and Aldebaran still bear Arabic names.</p></div> <div><p>European and Arabic explorers used the astrolabe to navigate at sea, allowing them to explore new territories.</p></div>
<div><p>Al-Khujandi Muslim scholars knew the earth was tilted, but they didn't know the angle. Calculating the axial tilt was important because it helped understand the seasons Al-Khujandhi used astrolabes to measure the height of the sun above the horizon. This allowed him to work out that the world was tilted by 23 degrees.</p></div>	<div><p>Mariam al-Astrulabi Making astrolabes was a complex and highly skilled task. Mariam al-Astrulabi learnt how to make astrolabes from her father. She made highly accurate and intricate astrolabes.</p></div> <div><p>Al-Astrulabi was employed by Sayf al Dawla, the ruler of a powerful empire in Syria.</p></div>	

KPI 4 Al-Khwarizmi and Mathematics



Al Khwarizmi and the House of Wisdom
Al-Khwarizmi was a **mathematician** who was the director of the **House of Wisdom** during the 9th Century.
The **House of Wisdom** was a library and a centre for **scholars** working on science, maths, and philosophy. It was based in **Baghdad**, in modern day **Iraq**.



Scientific Advances

Numbers

٠	١	٢	٣	٤	٥	٦	٧	٨	٩
0	1	2	3	4	5	6	7	8	9

Al-Khwarizmi studied **Indian mathematics**, which used a different number system to the **Roman numeral system** used in Europe.
Al-Khwarizmi introduced a new **Arabic** numbering system - which we use today - as well as the **decimal point**.

Algebra

$18 - 4x = 5x$
 $18 = 9x$
 $2 = x$

In his book, **Al-Jabr**, published in 820, Al-Khwarizmi introduced the concept of **algebra**: simplifying mathematical problems by using symbols and rules.

Algorithm

Al-Khwarizmi gave his name to the mathematical process of **algorithms**: breaking down complicated processes into simple steps.

Motivation

Scholars at the House of Wisdom translated texts from around the world into **Arabic**. Al-Khwarizmi could therefore learn from **Indian and Greek** mathematicians and bring their ideas together.

Impact

Khwarizmi's work on **algorithms** is the basis for modern **computing**:

All **computing** is based on **algorithms**. An iPhone, for example, is programmed with thousands of different algorithms.

Algorithms are also used in **search engines** and product **recommendations**.

During **World War II**, the British scientist **Alan Turing** used algorithms to crack the German secret code, allowing the British to spy on German plans.

KPI 5 Caliph Al Mamun

The Abbasid Caliphate

The **Abbasid Caliphate** dominated the Middle East and North Africa from the 8th to the 13th Century.

Caliphs

The **Abbasid Caliphate** was ruled by powerful **caliphs**. **Al-Mamun** (caliph from 813 to 833) was very supportive of science. **Al-Mamun** supported scientific research because...

...he wanted a healthy population to fight in wars

800 There were 800 doctors in Baghdad in the 9th century

Later **caliphs** encouraged the work of doctors such as **Ibn Sina**, who wrote a medical **encyclopaedia**.

...he wanted to produce enough food to feed his people.

The **caliphs** encouraged **engineers** such as **Ismail Al-Jazari**, who invented a water raising machine for **irrigating crops**

Scientists researched **new crops** from the empire, including rice from India

...he wanted to have an accurate map of his empire.

Al-Mamun ordered a new map of the world to be produced with important Islamic cities on it

Astrolabe makers such as **Mariam Al-Astrolabi** were employed to help with working out distances.

Vocabulary	
Astrology	The study of the stars and their influence on the earth
Arabic	The language of Islam
Axial tilt	How far the earth is tilted off straight
Baghdad	The capital of the Abbasid Caliphate
Caliphate	An Islamic Empire
Caliph	The ruler of an Islamic Empire
Camera obscura	An experiment that demonstrates the properties of light
Cradle to the grave	For your whole life
Eid	Important Islamic festival
Encyclopaedia	A book containing all the information on one subject
Featureless	Without any trees / buildings / features to help navigation
Hadith	The sayings of the prophet Muhammad
Intricate	Small and complicated
Irrigating	Watering plants
Lunar calendar	A calendar based on the movement of the moon
Mecca	The holiest city in Islam
Motivation	The reasons why you want to do something
Muhammad	The most important prophet in Islam
Navigation	Finding your way somewhere
Optics	The study of light
Pioneer	Someone who is the first to do something
Prophet	An important religious figure who shares the word of God
Qu'ran	The holy book in Islam
Roman numerals	I, II, III, IV, V, VI, VII, VIII, IX, X, etc
Scholars	People who study and research for a living
Scientific method	Basing ideas on proof from experiments
Surveying	Measuring accurately the dimensions of a building or piece of land

Year 7 Music

Patterns in Music

Keywords

Pitched Percussion- percussion instruments that can play different pitches (or 'notes') – xylophones, glockenspiels, chime bars etc.

Rondo / Rondeau- a music shape with a recurring theme. The theme is alternated with contrasting 'episodes'

Tutti -literally means all together but is used in music to mean 'everyone'

Unpitched Percussion- Percussion instruments that make sounds that don't have a specific pitch (or 'note') – drums, shakers, woodblocks, tambourine.

Variation- another word for 'version'



Henry PURCELL
(1659 - 1695)
English composer
Wrote for theatre,
church and royalty
Died young and was
mourned as 'very
great master of
music'

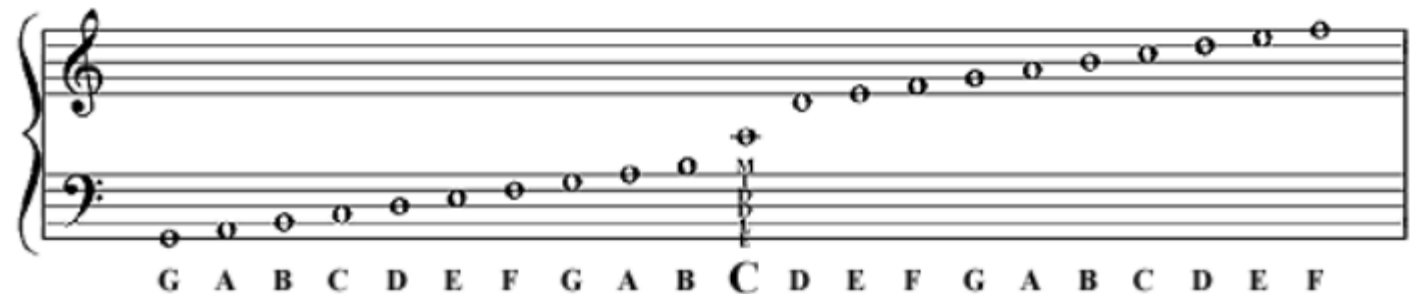
The Stave

Staff- the 5 lines, 4 spaces where music is written:

Treble Clef- at the beginning of each stave. The treble clef means that notes are high in pitch and are found above Middle C. These notes are played with right hand.

Bass Clef- at the beginning of each stave. The bass clef means that notes are low in pitch and below Middle C. These notes are played with the left hand.

The Stave Notes



Year 7- Patterns In Music

What is Baroque music?

The Baroque period in music was from roughly 1600 to 1750. Monteverdi composed at the beginning of the period and Bach and Handel composed towards the end of the period.

Who was Johann Sebastian Bach?

Bach wrote music during a time that we now call the Baroque Period, when composers were servants who worked for wealthy families providing music for weekly church ceremonies, for parties and for special occasions. During this time composers wrote a lot and were paid little but Bach was one of the absolute best. Everything was different in the Baroque period; many of the orchestral instruments we see today hadn't been invented yet, harpsichords were the most popular keyboard instrument and music always had a purpose. People didn't just listen to music in a concert, they used it for worship or entertainment. Bach's music was extremely complex and clever and often made up of lots of melodies weaving in and out of each other. After Bach died, Mozart and Beethoven came along and music changed again forever. Bach's music was suddenly very old fashioned and people stopped playing it. It was only in the last 100 years or so that people have started looking back to Bach's music again and noticing how brilliant he was.

2.



3.



Instruments

1. **Harpsichord**- a plucked string keyboard
2. **Oboe**- a woodwind instrument with a reed
3. **Recorder**- a woodwind instrument with holes to create pitches
4. **Trumpet**- a brass instrument
5. **Violin**- the highest pitched stringed instrument which is played by pulling bow across strings



5.



1.



4.

Who was Henry Purcell?

Henry Purcell, born in 1659, was a leading English composer in the 17th century and is still considered one of the most important and influential composers of all time. He worked for the British Royal family and was buried in Westminster Abbey.

He died in his mid-thirties, at the peak of his career, in 1695. In his short life, he wrote for many different occasions. Purcell wrote many anthems - similar pieces of music to hymns - for the Church of England's full morning and evening services. In his early career, Purcell wrote mostly instrumental music - for harpsichord and stringed instruments. It was later that he composed the majority of his vocal music, for the Church and for opera.

Key Words

Call & response- melody is played then is answered by another
Canon- same melody (tune) is played in another part after a given duration (time)
Chords- 2 or more notes which sound at the same tie and sound good together
Contrapuntal- where two or more melodic lines are playing at the same time
Ensemble – group performance
Fugue- one voice part (instrument part) is then copied by another voice part
Ground Bass- repeated pattern in the bass
Melodic- pleasant sounding tunes
Melody- the main tune
Motif- recurring musical idea
Octave- distance between notes which are named the same e.g. Middle C to C above Middle C
Pedal- long held note in the bass
Sacred Music- religious music e.g. mass, hymn

Suggested Listening

Use YouTube to listen to the following pieces of music.

Henry Purcell- Dido & Aeneas

Henry Purcell- Rondeau from Abdelazer

J.S. Bach- Toccata & Fugue In D

J.S Bach – Air on G String

G.F. Handel- Messiah

G.F. Handel – Water Music

J. Pachelbel- Canon in D



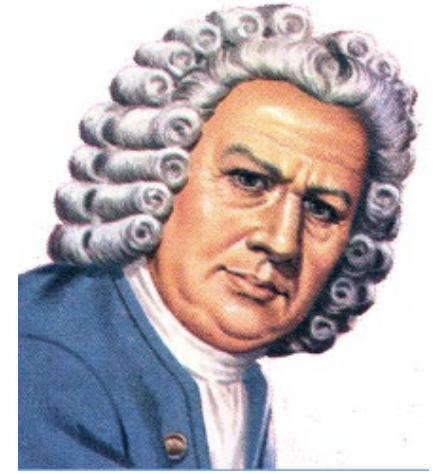
J. Pachelbel



H. Purcell



G.F Handel



J.S Bach

Purpose In Music: Hip-Hop

Origins of Rap Music

- From African roots- West African 'griots' (story tellers) were performing stories rhythmically over drums and instruments
- 1956 saw development of this style in the Caribbean and Jamaica - 'toasting' is talking or chanting over the rhythm or beat. Lyrics were improvised or pre-written



MC- Master of Ceremonies
DJ- Disc Jokey

What is 'Rap' Music?

Rapping refers to the vocal performance, not the style/genre of the music. Rapping can occur in a range of musical genres ranging from Alternative Rock to Reggae and Hip Hop.

What is 'hip-hop'?

Hip- hop is a music genre consisting of a stylized rhythmic music that commonly accompanies **rapping**, a rhythmic and rhyming speech that is chanted.

Suggested Listening

Eminem- Lose Yourself: <https://www.youtube.com/watch?v=m-1UqKjoet0>

House of Pain- Jump Around: https://www.youtube.com/watch?v=ATauCi_77U4

The Fresh Prince of Bell Air (TV theme tune): <https://www.youtube.com/watch?v=1nCqRmx3Dnw>

Drake- Hotline Blind: https://www.youtube.com/watch?v=uxpDa-c-4Mc&list=PL08QO4-WZCIfg3mcFYLlx_rMyYIRCaa0A

Ed Sheeran Ft. Stormzy- Take Me Back To London: <https://www.youtube.com/watch?v=7t7pz4Ottvg>

G-Eazy- Fried Rice: <https://www.youtube.com/watch?v=DCQ44b02Anc>

Key Words

Beat- continual 'heart beat' of the music

Break- where all elements of the song disappear except the percussion (drum beat)

Chord Pattern- repeated sequence of chords e.g. C Major, F Major, G Major

Improvised – make up on the spot

Melody – the main tune

Ostinato- short repeated pattern

Riff – short repeated pattern

Rhyme – similar sounds between words or the endings of words

Rhythm – the measure of flow of words e.g. using crotchets, minims, quavers etc

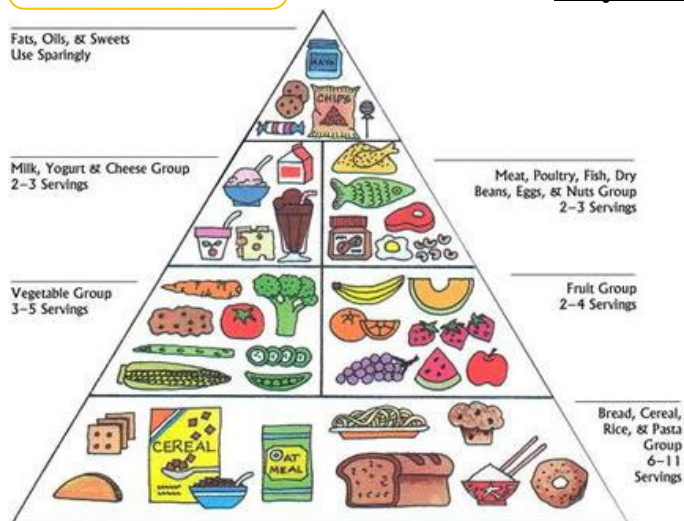
Stress – emphasis or importance given to particular sections of a word

Syllable – a unit of pronunciation

Syncopation – accented (might sound louder) notes are played against the beat (which is strong on beats 1 and 3), so in syncopation the strong emphasis falls on beats 2 and 4

Diet

Year 7 Cycle 2: Personal Development Subject Organiser



Food comes in different food types. Some are deemed healthier than others but, it is widely recognised that to be healthy, you have to have a balance of all food types. The diagram shows the list of food types, examples and how much you are expected to eat on a daily basis. If you have an unbalanced diet, you are at higher risk of health problems such as dia-

Benefits of a balanced diet:

- Weight loss. ...
- Reduced cancer risk. ...
- Diabetes management. ...
- Heart **health** and stroke prevention. ...
- The **health** of the next generation. ...
- Strong bones and teeth. ...
- Better mood. ...
- Improved memory.

Nutrient	Use in the body	Good sources
Carbohydrate	To provide energy	Cereals, bread, pasta, rice and potatoes
Protein	For growth and repair	Fish, meat, eggs, beans, pulses and dairy products
Fat	To provide energy. Also to store energy in the body and insulate it against the cold.	Butter, oil and nuts
Minerals	Needed in small amounts to maintain health	Dairy foods, fruit, vegetables
Vitamins	Needed in small amounts to maintain health	Salt, milk (for calcium) and liver (for iron)
Fibre	To provide roughage to help to keep the food moving through the gut	Vegetables, bran
Water	Needed for cells and body fluids	Fruit juice, milk, water

Benefits of exercise

- 1) Exercise helps us to learn:** Exercise causes the growth of new brain cells, helping us to think in new ways. Exercise stimulates alertness, attention and motivation, essential for learning.
- 2) Exercise makes us more creative:** Research shows that after just 30 minutes on a treadmill, people are able to think up new answers to old problems: they can think outside the box.
- 3) Exercise improves decision making:** Exercise releases dopamine, the brain's reward chemical, which helps us to make good decisions, not careless, rash or risky ones.
- 4) Exercise combats stress, anxiety and depression and lifts mood:** Exercise releases serotonin, which helps us to remain calm and feel good. Exercise has been shown to be more effective in combating depression than Prozac. **Not** exercising is like taking a depressant.
- 5) Exercise strengthens the immune system.** Exercise stimulates the release of T cells which fight disease. It also activates cells that repair damaged tissue.

Benefits of sleep:

1. Sleep helps reduce stress
2. Sleep can improve your memory
3. Sleep can lower your blood pressure
4. Sleep helps your body to fight back from illness and infections
5. Sleep can help you maintain your weight
6. Sleep puts you in a better mood
7. Sleep could reduce your chances of diabetes
8. Sleep helps keep your heart healthy
9. Sleep can be a painkiller
10. Sleep can make you smarter

Personal Hygiene

Personal hygiene may be described as the principle of maintaining cleanliness and grooming of the external body. It is in general looking after yourself.

Maintaining a high level of personal hygiene will help to increase self-esteem and confidence whilst minimising the chances of developing imperfections.

Sweating and body odour

Sweating is part of the body's natural cooling process. We lose fluids through our sweat glands which settles on the skin and cools us as the air reaches it. The fluid lost does not have a strong odour, but when it is left; bacteria can breed which increases the strength of smell. There are certain areas on our body that contain many more sweat glands than other parts; the groin, underarms and feet excrete higher amounts of oils through a larger number of glands. These areas are also mainly hidden away from the air so the bacteria have plenty of opportunity to breed. If you are overweight, there is a higher chance of having excess folds of skin and flesh in which bacteria can live quite happily.

Exercising and hot weather all increase the amount of fluid we lose as our body needs to work harder to cool itself therefore increasing the risk of excessive body odour.

Steps to keeping good personal hygiene:

Step 1—Wash clothing and linens on a regular basis. The longer it takes you to clean your dirty clothes and linens the smellier they become. Try to change your linens regularly. Germs and bacteria fester in your dirty clothes basket and hamper. Try to stay on a weekly cleaning schedule.

Step 2—Practice good oral hygiene. Always rinse any excess toothpaste and spittle from your toothbrush. Brush your tongue and gargle with mouthwash. Do not forget to floss!

Step 3—Change your toothbrush regularly. Replacing your toothbrush is essential to good oral hygiene. A new toothbrush is free from germs and plaque. Try to store your toothbrush in a place where it can easily dry.

Step 4—Clean all cracks and crevices on your body. Try scrubbing every part of your body two or three times before stepping out of the shower or bathtub. A nice firm scrub, washes away dirt and grime build up from a hard day at work.

Step 5—Choose a good deodorant. Why use an eight hour deodorant, if you are working for 12 hours? Try to find a deodorant that suits your needs without having to reapply before the day is out. For instance, if you tend to do more manual labour, find a deodorant for active people.

Step 6—Bath twice a day. Wash in the morning and at night. Bathing consistently cuts out body odour

The importance of good dental health:

Your mouth is a window into what's going on in the rest of your body, often serving as a helpful vantage point for detecting the early signs and symptoms of systemic disease — a disease that affects or pertains to your entire body, not just one of its parts. Systemic conditions such as AIDS or diabetes, for example, often first become apparent as mouth lesions or other oral problems.

The problem with dental plaque:

Though your saliva helps protect you against some invaders, it can't always do the job. More than 500 species of bacteria thrive in your mouth at any given time. These bacteria constantly form dental plaque — a sticky, colourless film that can cling to your teeth and cause health problems.

Long-term gum infection can eventually result in the loss of your teeth. But the consequences may not end there. Recent research suggests that there may be an association between oral infections — primarily gum infections — and poorly controlled diabetes, cardiovascular disease and preterm birth. More research is needed to determine whether oral infections actually cause these conditions, which include:

- **Poorly controlled diabetes.** If you have diabetes, you're already at increased risk of developing gum disease. But chronic gum disease may, in fact, make diabetes more difficult to control, as well. Infection may cause insulin resistance, which disrupts blood sugar control.
- **Cardiovascular disease.** Oral inflammation due to bacteria (gingivitis) may also play a role in clogged arteries and blood clots. It appears that bacteria in the mouth may cause inflammation throughout the body, including the arteries. This inflammation may serve as a base for development of atherosclerotic plaques in the arteries, possibly increasing your risk of a heart attack or stroke. Some research suggests that people with gum infections are also at increased risk of heart attack and stroke. The more severe the infection, the greater the risk appears to be. And gum disease and tooth loss may contribute to plaques in the carotid artery. In one study, 46 percent of participants who'd lost up to nine teeth had carotid artery plaque; among those who'd lost 10 or more teeth, 60 percent of them had such plaque.
- **Preterm birth.** Severe gum disease may increase the risk of preterm delivery and giving birth to a low birth weight baby. The National Institute of Dental and Craniofacial Research, in fact, estimates that as many as 18 percent of preterm, low birth weight babies born in the United States each year may be attributed to oral infections. The theory is that oral bacteria release toxins, which reach the placenta through the mother's bloodstream and interfere with the growth and development of the foetus. At the same time, the oral infection causes the mother to produce labour-triggering substances too quickly, potentially triggering premature labour and birth.

Key terms:

Creation, Genesis, Evolution, Big Bang, Charles Darwin, Cosmological, Aquinas, Paley, Teleological, Natural selection

Year 7- How did the universe begin?

KPI1: To describe tribal myths about the origin of the universe

At the beginning it was only darkness and a bare land... The Aborigines of Australia are considered one of the oldest surviving cultures in the world. Many different creation stories exist among the different Aboriginal groups. These 'Dreamtime' stories are considered to be a place where every person exists forever. According to the Aboriginals, the 'Dreaming' era preceded our own and was when spirit beings formed creation. It is believed that a culture of heroes (gods) travelled across a land without form and created sacred sites and other significant places, giving the language to people.

<https://www.ancient-origins.net/human-origins-folklore-myths-legends-australia/australian-aboriginals-creation-myth-00229>

KPI4: To review scientific proof to the origin of humanity

The basic idea behind the theory of evolution is that different species have developed over time from other life forms. The Earth is about 4.5 billion years old and there is scientific evidence that life on Earth began more than three billion years ago.

The accepted theory of **evolution** explains that it happens by **natural selection**. The key points are that:

Individuals in a species show a wide range of variation and this variation is because of differences in their genes.

Individuals with characteristics most suited to their environment are more likely to survive and reproduce. The genes that allow these individuals to be successful are passed to their offspring.

Those that are poorly adapted to their environment are less likely to survive and reproduce. This means that their genes are less likely to be passed on to the next generation.

Given time, a species will gradually evolve.

Both genes and the environment can cause variation, but only genetic variation can be passed on to the next generation.

KPI2- To explain Christian creation stories about the origin of the universe

In Christianity, the **creation** accounts are found in the first two chapters of the book of Genesis in the Bible. **Genesis 1:1-2:4a**

This account tells how God created the world in six days and rested on the seventh.

In the beginning God created the heavens and the earth.

Genesis 1:1

After creating the earth, the sky, the seas and plants, God made birds and fish on the fifth day and animals and humans on the sixth day.

So God created man in his own image, in the image of God he created him; male and female he created them.

KPI3- To review scientific proof to the origin of the universe

One of the theories put forward by cosmologists is the **Big Bang theory**. This suggests that about 15 billion years ago there was a massive explosion. This was the point at which all matter in the universe began; space and time began then too. Over time the universe that we know, and human and animal life, emerged.

This theory is generally accepted by scientists as being the best theory they have to explain the origins of the universe. If this theory is true, then it could mean that the universe 'just happened' and that it did not emerge as a result of the activity of a creator God.

KPI5- To analyse whether science and religion can work together Cosmological

St Thomas Aquinas (1225-1274)

Everything has to come from something. You cannot make something out of nothing.

Therefore there must have been a 'First Cause' that created the 'something' (the universe). That First Cause is God.

Teleological (or design)

William Paley (1734-1805)

If you were walking on a heath and saw a watch on the ground you would assume that its parts had not come together by chance because it is too ordered and complicated.

Therefore someone must have designed it or it would not work. Because the universe is also ordered and complicated, someone must have designed that too. That 'someone' is God.