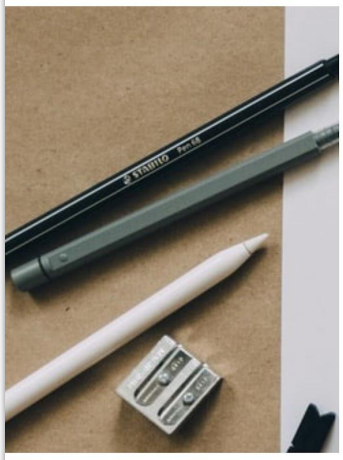
Knowledge Organiser

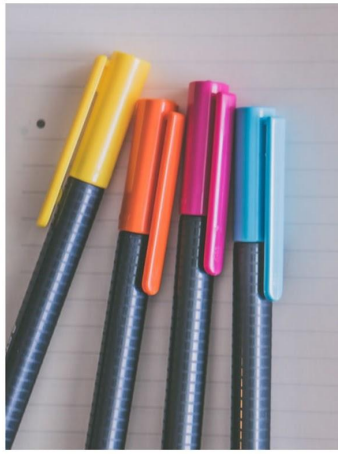
YEAR 8

Year 8 Science homework by Erin Blount

THE ENGAGED MIND STAYS SHARP.
BE ENGAGED IN THE HERE AND NOW.

Contents Page





Equipment

all students must have...

Mobile phones are not to be used in lessons without staff permission
No photos or videos to be taken without permission
No school related images or videos to be uploaded on to social media

Black or blue pen
Pencils
Ruler - 30cm
Protractor
Compass
Rubber
Pencil Sharpener
Purple pen
Scientific calculator
Coloured crayons
Student Organiser
Knowledge Organiser
Locker Key

Knowledge Organisers at Redmoor Academy

WHY?

Why do we have knowledge organisers?
Your knowledge organisers help you to be successful in many ways. Firstly, they make the key elements of each topic clear, showing you what you need to have an excellent understanding of in order to be successful. If you know these elements, your teacher will help you to understand them.

WHAT?

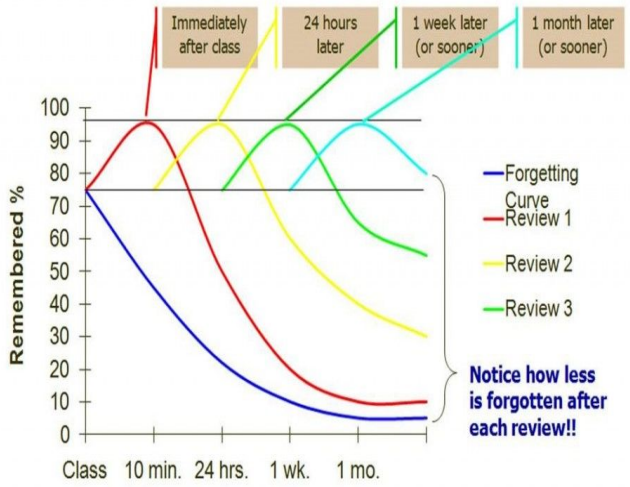
What are my teachers' expectations of me?
In Year 7 and 8 your teachers will give you homework. You will be spending 20 minutes a week learning information from your knowledge organiser for each subject, with Sparx used for Maths and Literacy. In Year 9 this will increase to 30-40 minutes. Teachers will test you regularly to make sure that you are completing the homework and remembering your knowledge.

HOW?

How will my teachers use them?
Core subjects will set homework once a week (others less often). This will help you to learn the most important knowledge for each topic. Teachers will also test you regularly to see how well you have remembered it. Research tells us that this practising is a really good way of helping you make sure that the knowledge stays in your memory. Over time, you will build on this knowledge to make sure that you know everything you need to for your subject. Sometimes you may have high stakes quizzes, where teachers will set a certain score that you have to reach to be successful.

How will they help me to be successful later on?
When it comes to GCSEs, you have lots of information to remember. Your knowledge organisers will gradually build up this knowledge over 5 years to help support you in Year 11. This means that when you revise you will just be recalling knowledge that you have already stored. Also, all of this practice with lots of different revision techniques now will help you when it comes to your final exams.

How we learn at Redmoor



Why reviewing your learning is so important

As soon as we are told a new piece of information, most of that information is 'lost' and forgotten. Hermann Ebbinghaus found that repeating information helps us remember more of it. This means we need to be reviewing and going over what we learn in order for us to remember and be able to use the information after a period of time has passed.

This resource summarises some proven strategies that you can use to review your knowledge.

Common methods of revision that are the **least effective**:

- Highlighting key points
- Re-reading
- Summarising texts

Retrieval practice

Testing what you know is a powerful tool in revision; the effort to remember something really strengthens your memory. Apps such as Memrise and Quizlet allow you to use or create your own quizzes based on topics. Create them, test yourself or get someone to test you. It works!

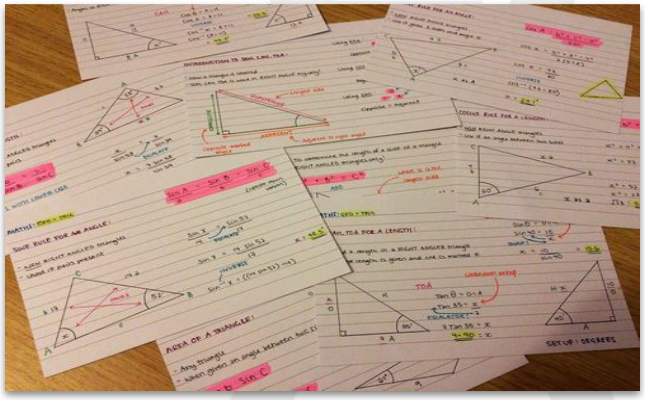
Learn more about retrieval practice here: Link to the Learning Scientists

How we learn at Redmoor

Flash Cards

You can use these simply to create questions on one side and answers on the other. You might colour-code the cards for specific topics, and even include keywords and timelines.

Once you have created your flashcards you need to think about how you will use them effectively. There is a link below to a video helping you understand the Leitner system of using flashcards:
YouTube: The Leitner Method



Dual Coding

Dual coding is the process of combining verbal materials with visual materials.
You simply take information that you are trying to learn and draw visuals to go with it.

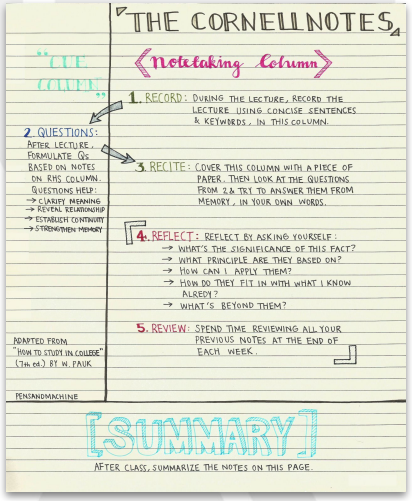
You can learn more about dual coding here:
Link To The Learning Scientists

Try to come up with different ways to represent the information. For example, you could draw a timeline, a cartoon strip or a diagram of parts that work together.

Cornell Notes

This method can be used in your revision books as a great method to get you to 'think' about your revision. You simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary

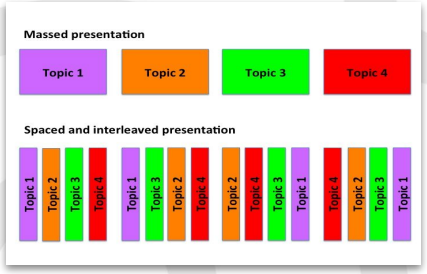


How we learn at Redmoor

Spacing and Interleaving

You shouldn't revise all of your topics in one go - this is called cramming. Instead, you should revise 'chunks' of a topic for small amounts of time, spending around 15-30 minutes on each. Your should then move onto another 'chunk' from a different topic.

Eg. topic 1 is 'cells', topic 2 is the 'digestive system'.
This will improve your memory!



Mind Maps

Mind mapping is simply a diagram used to visually represent or outline information. It is a powerful graphic technique you can use to translate what's in your **mind** into a visual picture.

Mind maps help with memorisation of key knowledge as they help to organise information and allow you to begin to make links and connections to different pieces of information. The use of visual images helps your brain to memorise the information with simple words next to them - and this links to dual coding!

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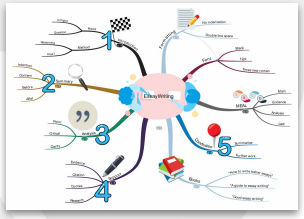
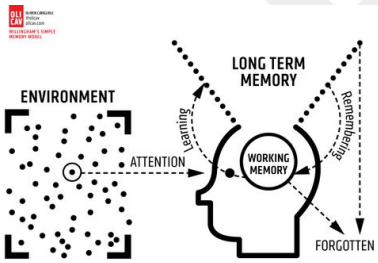


Useful links:

- The learning scientists: https://www.learningscientists.org/
- Memrise: https://www.memrise.com/
- Quizlet: https://quizlet.com/en-gb
- Seneca: https://www.senecalearning.com/



THINK HARD, WORK HARD, GO FAR

Literacy
Proofreading Guidance

When we write, we know what we're trying to say, so our brains might skip out words or punctuation. It is important that we proofread to avoid making silly mistakes.

Full Stops & Commas
- A full stop gives a strong pause. It goes at the end of a whole sentence.
e.g. Jake had four brothers. He got on best with Dan who shared his sense of humour.
- A comma gives a short pause and is used to separate items in a list *e.g. Bring some milk, eggs, butter and flour.*
After introductory words *e.g. However,*
Between the different parts of a sentence: *Gran, who had been a champion boxer in the sixties, stepped forward.*

Spelling Homophones
Words that sound the same but are spelt differently.
there , their , they're
They're silly to have left their coats over there where there is wet grass.
your , you're
You're such a good friend to lend me your phone.
to , two , too
Two of my friends are coming to Alton Towers too.

Capital Letters
- At the start of every sentence
- For days, months and celebrations, e.g. Wednesday, April, Easter
- For proper nouns (names of people and places) e.g. James, London, Rutland Water
- For Titles (except the small words) e.g. The Hunger Games, Match of the Day
- For abbreviations e.g. BBC, RSPCA

Grammar Errors
I have played tennis. ✔ I of played tennis. ❌
I should have / should've played tennis. ✔
I should of played tennis. ❌

I/she/he were late. ❌ I/she/he was late. ✔
They were late. ✔ They was late. ❌
You were late. ✔ You was late. ❌

I ran quick, passing the ball brilliant. I played amazing. ❌
I ran quick**ly**, passing the ball brilliant**ly**. I played amazing**ly**. ✔

Correct Tense
Are you using the correct tense? Do not switch from one to another. - For days, months and celebrations,

- **Past:** e.g. I ran to the shops.
- **Present:** e.g. I am running to the shops
- **Future:** e.g. I am going to run to the shops.

Paragraphs
- Change in time, e.g. Later that day, an important letter arrived. - Change in place, e.g. Back at home things were just as bad. / Chile, however, has a population of...
- Change of subject, e.g As well as mountain biking, I also enjoy swimming...
- Each time a different person speaks:
"Hey, that's my phone!"
"No it isn't - I had it for my birthday."

Apostrophes
- Use an apostrophe to show possession e.g. John's football is flat.

- Also use an apostrophe for omissions (the apostrophe shows where a letter or letters are missing) e.g. I didn't do it. It wasn't me!

Literacy Marking Code:

sp	Spelling mistake
^	Missing word/letter
O	Capital letter/Punctuation
~~~~~	Unclear/poorly worded
//	New paragraph
th	Use a thesaurus
w	Wrong word

Talking Points

Add, Build, Challenge

To add an new idea to what someone else has been saying:

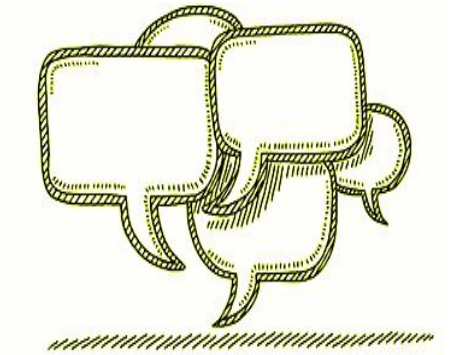
- I would like to add to this…
- I would have to agree with you because…
- Another example of this could be…
- Adding on to this, in my opinion…
- We might also consider…
- As well as this, it is important to think about…
- In addition…

To build on what someone else has been saying:

- This could be developed by considering…
- This links to…because…
- Furthermore, it could be argued that…
- To elaborate further…
- Building onto this…
- Leading from this…
- Taking this one step forward…
- On top of this…

To challenge someone's ideas and offer the opposite viewpoint:

- I would challenge this idea because…
- On one hand I agree with… However I think…
- On the other hand this idea could be challenged because…
- From another perspective you might argue that…
- Although I can see why ___ thinks… I disagree because…
- Whereas ___ seems to think… instead I think…



Banned words:

- ★ You know
- ★ Like
- ★ Isn't it
- ★ Basically
- ★ Sort of
- ★ Kind of
- ★ Sommit
- ★ Innit
- ★ Dunno
- ★ Gonna
- ★ So…
- ★ Okay….

English Department: Conflict Poetry

Poetic Form and Structure	
Caesura	A break within a line of poetry where there is punctuation to create a pause.
Enjambment	The continuation (spilling over) of a line of poetry onto the next like without punctuation at the end.
Rhyme scheme	The pattern of rhyme within a poem.
Rhythm	The beat of the poem, made up of stressed and unstressed syllables.
Sonnet	A poem with 14 line which is traditionally about love. It usually ends in a rhyming couplet.
Volta	A turn in the thought or argument on the poem. It can be a dramatic shift in emotion.

Context: World War 1	
1914 - 1918	When the war happened.
Trenches	Long, narrow ditches dug into the ground. Soldiers lived in them.
No man's land	Disputed ground between the trenches of two opposing armies.
Gas	A toxic chemical used as a weapon for the first time during this war.
Shells	Explosive bombs or projectiles aimed at soldiers during the war
Shell Shock	The post traumatic stress disorder many soldiers suffered from.

Vocabulary Boost	
Word	**Definition**
Condemn	To criticise something or someone strongly.
Coerce	To persuade someone forcefully to do something that they may not want to do.
Enlist	To join the armed forces, or to ask for an get help or support from someone.
Expose	To remove what is covering something so it can be seen, or to bring to public notice.
Patriotic	Showing love for your country and being proud of it.
Propaganda	Ideas, information, opinions or images that give one half of the argument.
Psychological	Relating to the human mind and feelings.
Reality	The state of things as they are, rather than as they are imagined to be.

Language Features	
Direct address	Is when a speaker talks directly to the reader or audience.
Imagery	Descriptive language which creates clear images - this could be religious imagery, natural imagery etc.
Imperative	An order or command; something that is very important or urgent.
Irony	The use of words that say the opposite of what they really mean.
Metaphor	A phrase which describes one thing as if it is something else.
Personification	When you give an animal, thing or object qualities that only a human can have.
Symbolism	Where an image or object represents something else.
Tone	An attitude of a writer toward a subject or an audience.

English Department: Creative Writing

Literary Techniques	
Adjective	An adjective describes a noun. E.g *'the tall building.'*
Alliteration	Alliteration occurs when you use the same letter at the start of words that are next to, or near, each other. *E.g 'Daniel doesn't like dentists.'*
Emotive Language	Words that make the reader feel an emotional response such as anger, sadness, joy or sympathy. E.g *'the innocent boy broke his leg when the nasty bully pushed him over.'*
Metaphor	A metaphor is when you describe someone or something as if it were something else, without using the words 'like' or 'as'. *E.g 'you are my sunshine.*
Personification	Personification occurs when you give human characteristics to something that isn't human. E.g 'the sun smiled at us.'
Onomatopoeia	A word that sounds like the thing it describes. E.g 'Bang' or 'buzz'.
Simile	A simile is a comparison of two things by using the words 'like' or 'as'. *E.g 'she was as sweet as a honeybee.'*
Superlative	A superlative indicates that something is the best or most extreme of its kind. Usually formed by adding '-est' to the end of an adjective. E.g 'smallest', 'happiest' 'longest'.

Structural Features	
Cyclical Structure	If you use a cyclical structure then it means your description ends by making a link back to the beginning.
Varied Sentence lengths	Shorter sentences can alter the pace of your writing. Complex sentences can alter the rhythm. For single, sudden ideas you want to draw attention to, a single sentence or single word paragraph works brilliantly.
Paragraphs	Paragraphs are just a group of sentences sharing the same idea. They structure your writing to make it easier for readers to follow. Always start a new paragraph when you change the focus of your writing. When writing about a new **TIME** or about a different **PLACE**. When writing about a new **TOPIC** or about or as a new **PERSON**.

Punctuation	
Apostrophe	Can be used to show ownership or indicate a missing letter.
Colon	Used to indicate the start of a list
Semi-colon	Used to separate clauses within a sentence. They cause the reader to pause for longer than a comma but not as long as a full stop.
Question mark	Used at the end of a sentence, when asking a question.
Exclamation mark	Used at the end of an exclamatory sentence to show strong emotion.

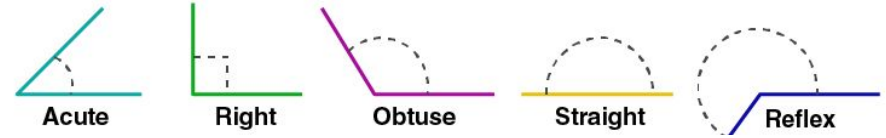
Sentence Forms	
Simple	A simple sentence contains just one clause (with a subject and one verb). Simple sentences are effective when used sparingly as they are straightforward and direct.
Compound	A compound sentence is formed when you join two main clauses that make sense on their own with a connective. In a compound sentence the clauses are often linked by connectives such as 'and', 'but', 'so' etc.
Complex	A complex sentence contains one main clause and one or more subordinate clause that relies on the main clause to make sense.

Sentence Upgrades	
-ing	Running for his life, the soldier dodged bullets.
Preposition	Under the clouds of smoke, people slowly died.
Adverb	Cautiously, the medic touched the wound.
Connective	Despite the weather, the soldiers stayed outside.

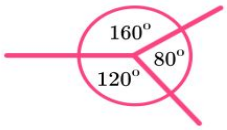
Sentence Upgrades	
Pair of adjectives	Alone and scared, the boy trembled as he held his gun.
Triple noun	Guns, shells, bombs: the trenches were alive with noise.
Triple adjective	Cold, damp, boggy: the trenches provided no respite from the rain.

MATHS – Mastery Curriculum

Sparx Code	TOPIC	In Class	Pre-test	Post test
M437	Finding percentages of amounts without a calculator			
M905	Finding percentages of amounts with a calculator			
M958	Converting between fractions and decimals			
M264	Converting between fractions, decimals and percentages			
M553	Ordering fractions, decimals and percentages			
M701	Using recurring decimal notation			
M922	Converting fractions to recurring decimals			
M979	Substituting into real-life formulae			
M208	Substituting into algebraic formulae			
M327	Substituting into expressions with multiple operations			
M417	Substituting into expressions with one operation			



Angles on a straight line add up to 180°



Angles around a point add up to 360°

Vertically opposite angles are equal

Sparx Code	TOPIC	In Class	Pre-test	Post test
M502	Types of angles			
M541	Estimating angles			
M780	Measuring angles			
M331	Drawing angles			
M818	Angles on a line and about a point			
M163	Vertically opposite angles			
M885	Writing and simplifying ratios			
M801	Using equivalent ratios to find unknown amounts			
M525	Sharing amounts in a given ratio			
M478	Solving proportion problems			
M597	Drawing and interpreting tally charts			
M644	Drawing and interpreting pictograms			
M460	Drawing bar charts			
M738	Interpreting bar charts			
M140	Drawing line graphs			
M183	Interpreting line graphs			
M945	Collecting and recording data using tables			

MATHS – Stretch Curriculum

Sparx Code	TOPIC	In Class	Pre-test	Post test
M957	Constructing and solving equations			
M387	Solving equations with the unknown in the denominator			
M554	Solving equations with the unknown on both sides			
M902	Solving linear equations involving brackets *			
M401	Solving equations of the form (x+a)/b=c *			
M568	Simplifying algebraic fractions by cancelling common factors			
M866	Position-to-term rules for sequences of patterns			
M991	Position-to-term rules for arithmetic sequences			
M166	Substituting into position-to-term rules			
M241	Term-to-term rules for sequences of patterns			
M381	Term-to-term rules for numerical sequences			

Sparx Code	TOPIC	In Class	Pre-test	Post test
M120	Simplifying expressions using index laws			
M150	Index rules with negative indices			
M608	Index rules with positive indices			
M681	Value for money			
M533	Percentage change with a calculator			
M476	Percentage change without a calculator			
M230	Solving shape properties involving coordinates			
M622	Calculating midpoints			
M618	Reading and plotting coordinates			
M112	Drawing and interpreting scale diagrams			
M525	Sharing amounts in a given ratio			

Balancing method

$$\frac{x}{12} - 5 = 4$$

$+5 \quad +5$

$$\frac{x}{12} = 9 \quad \times 12 \quad \times 12$$

$x = 108$

Function machine method

$$\frac{x}{12} - 5 = 4$$

$x \rightarrow \div 12 \rightarrow -5 \rightarrow 4$

$108 \leftarrow \times 12 \leftarrow +5 \leftarrow 4$

$x = 108$

Expanding Brackets Grid Method

x	x	+4
5	$5x$	+20

$5(x+4)$

Rule	Example
$a^m \times a^n = a^{m+n}$	$2^5 \times 2^3 = 2^8$
$a^m \div a^n = a^{m-n}$	$5^7 \div 5^3 = 5^4$
$(a^m)^n = a^{m \times n}$	$(10^3)^7 = 10^{21}$
$a^1 = a$	$17^1 = 17$
$a^0 = 1$	$34^0 = 1$
$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$	$\left(\frac{5}{6}\right)^2 = \frac{25}{36}$

6^3 ← Index

↑

Base

Rule	Example
$a^{-m} = \frac{1}{a^m}$	$9^{-2} = \frac{1}{81}$
$a^{\frac{x}{y}} = \sqrt[y]{a^x}$	$49^{\frac{1}{2}} = \sqrt[2]{49} = 7$

Topic: Bioenergetics and Interdependence

Lesson 1&2: Aerobic and Anaerobic Respiration

Aerobic Respiration

Glucose + Oxygen → Water + Carbon Dioxide

$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$

Anaerobic Respiration

Glucose → Lactic Acid

$C_6H_{12}O_6 \rightarrow 2C_3H_6O_3$

Anaerobic respiration occurs in the absence of oxygen

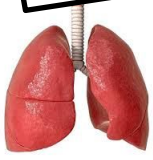
Lactic acid needs to be removed by reacting it with oxygen - this called the ***Oxygen Debt***

Lactic acid	+	Oxygen	→	Carbon Dioxide	+	Water

Lesson 3: Response to Exercise

Changes that occur in ***response to exercise*** increase the ***Oxygen*** and ***Glucose*** being delivered to cells for ***Respiration***

Breathing Rate Increases



Heart rate increases

Lesson 4: Biotechnology

When yeast undergoes ***anaerobic respiration*** it turns ***glucose*** into ***ethanol*** and ***carbon dioxide***

The carbon dioxide can make bread dough rise…

…and the ethanol provides the alcohol for beer and wine

Lesson 5 & 6: Photosynthesis and Limiting Factors

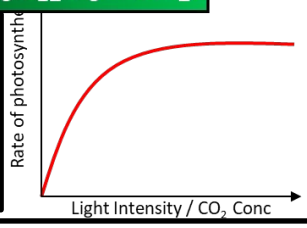
Photosynthesis

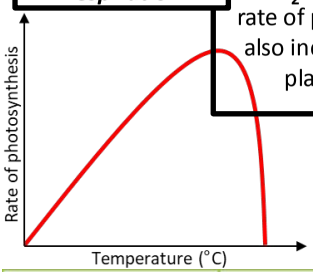
Carbon Dioxide + Water → Glucose + Oxygen

$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$

Photosynthesis is the opposite reaction to ***Aerobic Respiration***

As **light intensity / $[CO_2]$** increases the rate of photosynthesis also increases before plateauing





As temperature increases the rate of photosynthesis also increases before decreasing back to 0 – at this point the enzymes have denatured

Lesson 7 & 8: Leaf Structure and Plant Minerals

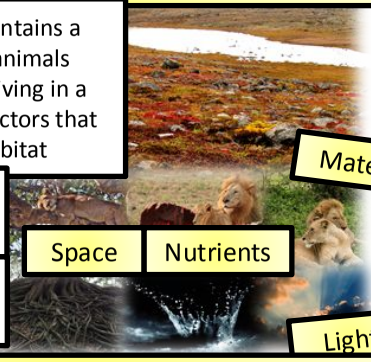
How are leaves adapted to carry out photosynthesis?

Contain ***Chloroplasts***	***Air Spaces*** for ***Diffusion***	***Xylem*** transports water and ***phloem*** transports glucose
Large ***Surface Area***	***Stomata*** control **gas exchange**	The reactants for ***Photosynthesis***
Thin		

Nutrient	Ion	Function
Magnesium	Mg^{2+}	Used to make chlorophyll
Potassium	K^+	Allows stomata to open and close
Nitrates	NO_3^-	Used for protein synthesis
Phosphates	PO_4^{3-}	Required for healthy roots

Lesson 9 & 12: Ecosystems and Competition

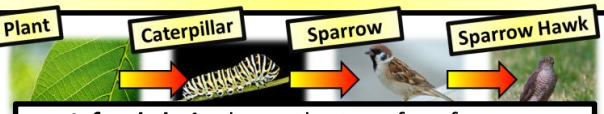
An ***Ecosystem*** contains a ***community*** of animals (>1 ***population***) living in a ***habitat*** and the factors that affect that habitat



In an ***ecosystem*** animals will ***compete*** for…

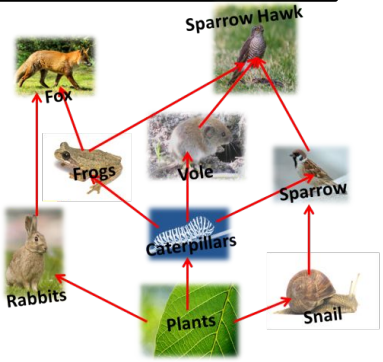
In an ***ecosystem*** plants will ***compete*** for…

Lesson 10 & 11: Food Chains and Food Webs



A ***food chain*** shows the transfer of ***energy***

A food web shows the transfer of ***energy*** in an entire ***ecosystem***



Can you find the original ***food chain*** in this ***food web?***

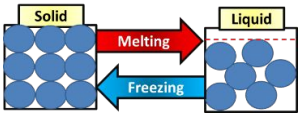
Food webs are important in maintaining steady population numbers within an ecosystem

Keywords

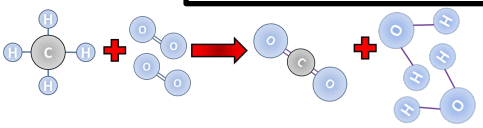
Reactants	Mitochondria	Ethanol	Ecosystem	Community	Consumer
Products	Oxygen debt	Photosynthesis	Habitat	Environment	Predator
Aerobic respiration	Anaerobic respiration	Limiting Factor	Population	Producer	Prey

Topic: Chemical Reactions

Lesson 1 & 2: Chemical and Physical Changes



Physical changes:
The arrangement of particles changes no bonds are broken
H_2O (s) → H_2O (l)



↑ **Chemical Reactions** ↑
Bonds between atoms are broken, the atoms rearrange, and new bonds are formed

*Notice that there are the same number of C, H, and O atoms **before** and **after** the reaction

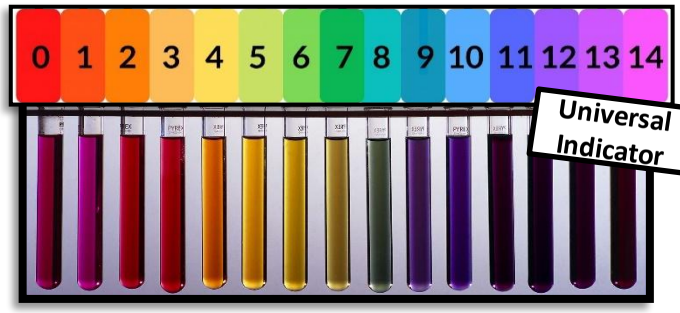
Can you use this to explain the ***conservation of mass?***

Lesson 3 & 5: Acids and Alkalis

Common acids

Common alkalis

Lesson 4 & 6: pH, Indicators, & Neutralisation



Indicators can be used to determine if a solution is acid or alkali

pH values **<7** are **acidic**

pH values **>7** are **alkali**

pH value of 7 is **neutral**

Lessons 7 & 8: Reactions of Metals

Metals react with oxygen to form metal oxides

Iron + Oxygen → Iron Oxide

Magnesium + Oxygen → ?

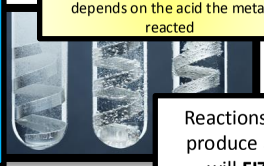
Zinc + Oxygen → ?

What are the products of the reactions above?

Metals react with acids to form a ***salt*** + hydrogen ***gas***

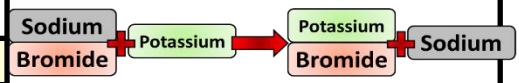
Acid	Salt Formed
Hydrochloric	- Chloride
Sulfuric	- Sulfate
Nitric	- Nitrate

The suffix of the salt's name depends on the acid the metal reacted



Reactions that produce a gas will **FIZZ**!

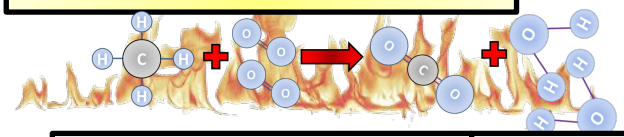
Lesson 9: Displacement Reactions



Displacement reactions can occur between halides (group 7 ions) or metals

The more reactive element will ***displace*** the less reactive element

Lesson 10: Combustion



Most ***fuels*** consist of 2 elements: Hydrogen and Carbon

When ***hydrocarbons*** are burned the products are CO_2 and H_2O

These are called ***hydrocarbons***

Lesson 11: Thermal Decomposition

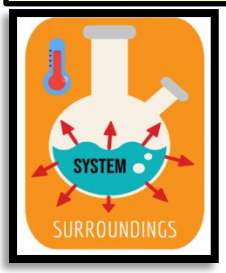
A ***decomposition*** reaction is identified by having only ***one reactant*** and ***multiple products***

$CuCO_3 \rightarrow CuO + CO_2$

Copper Carbonate | Decomposes to form... | Copper Carbonate | -AND- | Carbon Dioxide

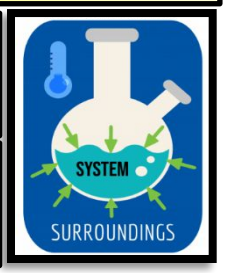
Why is it called "*THERMAL*" decomposition?

Lesson 12: Endothermic and Exothermic Reactions



Exothermic reactions release ***energy*** into the surroundings

Endothermic reactions absorb ***energy*** into the surroundings

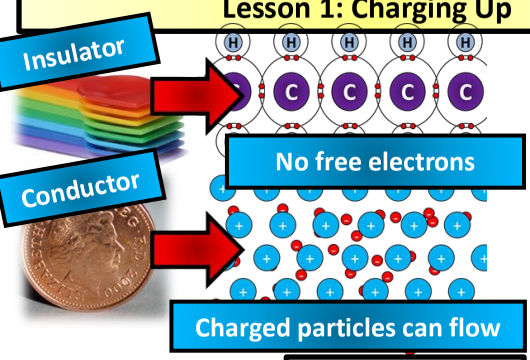


Keywords

Chemical Reaction	Catalyst	Fuel	Non-renewable	Endothermic	Base
Physical Change	Reactant	Combustion	Thermal Decomposition	Exothermic	Alkali
Reversible	Product	Oxidation	Conservation of Mass	Acid	Neutral

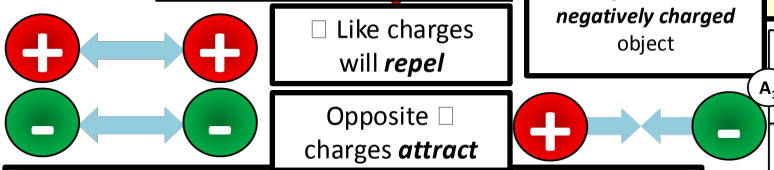
Topic: Electricity and Magnetism

Lesson 1: Charging Up



When 2 ***insulators*** are rubbed together ***electrons*** are transferred from one material to the other

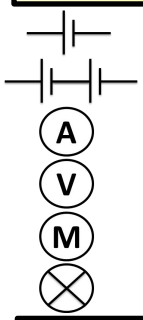
Resulting in a ***positively charged*** object and a ***negatively charged*** object



Like charges will ***repel***

Opposite charges ***attract***

Lesson 2: Current and Circuit Symbols



Cell	
Battery	
A	Ammeter
V	Voltmeter
M	Motor
	Bulb

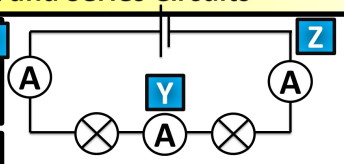
Circuits are difficult to draw – so we use ***symbols*** to represent the components of a circuit

Current is the flow of ***charge*** and is measured in ***Amperes (A)***

The current flowing through a circuit can be measured using an ammeter

Lesson 3: Current and Series Circuits

A series circuit has a single loop leading to and from the battery/cell



↑ This circuit has ↑ 3 ammeters (X,Y,Z) and 2 bulbs.

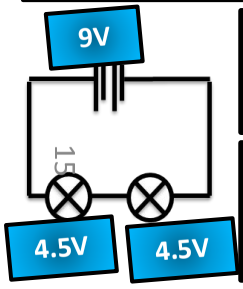
The current measured by the ammeters were

Ammeter	Current (A)
X	3
Y	3
Z	3

Lesson 4: Potential Difference (or Voltage)

The ***potential difference*** (p.d.) of a ***cell*** or ***battery*** tells you the amount of ***ENERGY*** a battery or ***CELL*** can supply.

You measure p.d. with a ***VOLTMETER*** The ***VOLTAGE*** of a ***battery*** tells you the p.d. across it and the ***VOLTAGE*** on a bulb tells you the p.d. it is designed to work at.



The total ***voltage*** of the ***battery/cell*** (9V) is shared across the ***components*** of a ***series*** circuit

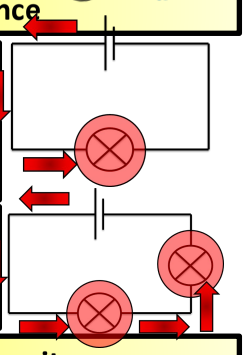
The 2 bulbs in this circuit have the same potential difference across them. This implies the bulbs are identical

Lesson 5: Resistance

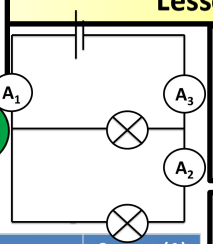
Current flows through a circuit and reaches a ***component***

It is more difficult for ***current*** to pass through the ***component***

Resistance is the measure of how difficult it is for ***current*** to pass through a ***component***



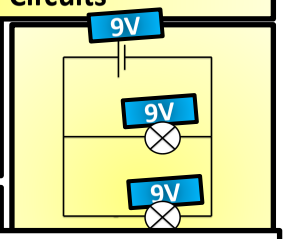
Lesson 6: Parallel Circuits



Ammeter	Current (A)
A_1	4.50
A_2	2.25
A_3	4.50

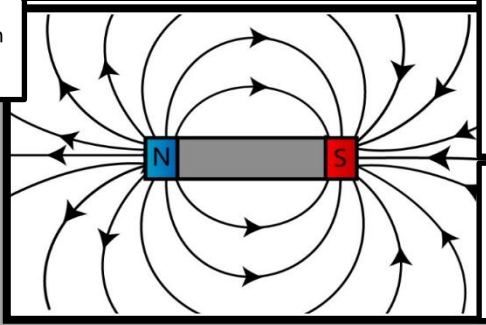
A parallel circuit contains more than one loop

Current will split when it reaches a branch in a circuit



The p.d. across each branch of the circuit is the same as the p.d of the battery/cell

Lesson 7: Magnets and Magnetic Fields

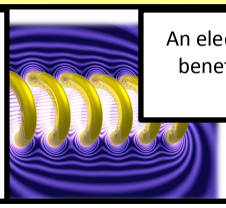


The area around a magnet is called a ***magnetic field***

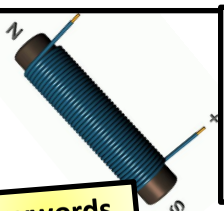
The ***magnetic field*** is the strongest at the poles of the magnet

Lesson 8: Electromagnets

If you pass a current through a coil of insulated wire, the coil (***solenoid***) will act like a magnet



An electromagnet has the benefit of being turned on/off



If you put a magnetic material such as an iron nail into the centre (***core***) the ***magnetic field*** becomes stronger

Keywords

Electron	Current	Magnetic Field
Conductor	Potential Difference	Relay
Insulator	Resistance	Motor

Tu aimes quelles matières? What subjects do you like?

Phonics (1)
e [uh]
é [ay]
è [eh]
ç [ss]
an [on]
th [t]
in [an]
ui [we]
ai [ay]
qu [kuh]
tion [see-on]
oi [wa]

Opinion phrase (2)	School Subject (3)			Quality Vocab (4)	Reason (5)	
Ma matière préférée est (My favourite subject is) **Mes matières préférées sont** (My favourite subjects are) **J'adore** (I love) **J'aime bien** (I really like) **Je préfère** (I prefer) **Je n'aime pas** (I don't like) **Je déteste** (I hate) **Je ne supporte pas** (I can't stand)	**l'anglais** (English) **le français** (French) **les sciences** (Science) **les maths** (Maths) **les travaux manuels** (Design Tech) **l'espagnol** (Spanish) **le théâtre** (Drama)	**le dessin** (Art) **l'EPS** (PE) **la religion** (ME) **la cuisine** (Cooking) **l'informatique** (Computing) **l'histoire** (History) **la géo** (Geography)	**car** (because) **parce que** (because) **puisque** (as)	**pour moi** (for me) **je pense que** (I think that) **j'estime que** (I reckon that) **la plupart du temps** (most of the time) **je suis l'opinion que** (in my opinion) **je dirais que** (I would say that) **heureusement** (fortunately) **malheureusement** (unfortunately)	**c'est** (it is) **ce n'est pas** (it isn't) **ça peut-être** (it can be)	**important** (important) **utile** (useful) **inutile** (useless) **difficile** (difficult) **facile** (easy) **barbant** (boring) **une perte de temps/énergie** (a waste of time/energy)
					J'aime le prof (I like the teacher) **Je déteste le prof** (I hate the teacher) **il y a trop de devoirs** (there's too much homework) **ce n'est pas mon tasse de thé** (it's not my cup of tea) **le prof explique bien** (the teacher explains well)	

Décris ton horaire du temps Describe your timetable

Time Phrase (6)	Time (7)	Verb	Noun
Le lundi (on Monday) **Le mardi**(on Tuesday) **Le mercredi** (on Wednesday) **Le jeudi** (on Thursday) **Le vendredi** (on Friday)	**à huit heures** at 8 o'clock **à neuf heures** at 8 o'clock **à dix heures** at 10 o'clock **à sept heures trente** at half past 7 **à six heures et quart** at quarter past 6	**j'ai** **on a**	**sciences** (science) **anglais** (English) **dessin** (Art)
Le collège commence (School starts) **Le collège finit** (School finishes) **Les cours commencent** (Lessons start) **La pause déjeuner commence** (Lunch starts) **La récré commence** (Breaktime starts)			

Qu'est-ce que tu vas faire après avoir quitté le collège? What are you going to do when you leave school?

Time Phrase	Future structure	Infinitive	
Après avoir quitté le collège Redmoor After leaving Redmoor **L'année prochaine** (next year) **À l'âge de dix huit ans** (When I am 18) **À l'avenir** (In the future)	**je vais** I am going **je voudrais** I would like **j'ai l'intention de** I intend **je veux** I want **je ne vais pas** I am not going to **je ne veux pas** (I don't want to)	**aller** (to go)	**au lycée** (to college) **à l'université** (to university)
		faire (to do)	**un apprentissage** (an apprenticeship)
		devenir (to become) **être** (to be)	**professeur** (teacher) **médecin** (doctor) **fermier** (farmer)

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		devenir (to become) **être** (to be)	**professeur** (teacher) **médecin** (doctor) **fermier** (farmer)

Comment est ton uniforme scolaire? What is your school uniform like?

Time Phrase	Modal verb	Infinitive	PVS + Noun	Adjective (colour)
Normalement, normally, **Pendant les cours,** During lessons, **Pour l'EPS,** For PE,	**je peux** I can **je dois** I have to **Il faut** You must **On peut** You can **On doit** You have to **Il est interdit de**	**porter** to wear	**un pantalon** trousers **un tee-shirt** a t-shirt **un short** a pair of shorts **un polo** a polo shirt **un sweat** a hoodie **une jupe** a skirt **une veste** a blazer **une chemise** a shirt **une cravate** a tie **une casquette** a cap **des chaussures** (some) shoes **des chaussettes** (some) socks **des baskets** (some) trainers	**noir(e)(s)** black **blanc(he)(s)** white **rouge(s)** red **jaune(s)** yellow **vert(e)(s)** green **bleu(e)(s)** blue **brun(e)(s)** brown **gris(e)**(s) grey **orange** **rose** pink **Bordeaux** burgundy
Si j'avais le choix, If I had the choice,	**je porterais** I would wear			

Tu joues à quels sport? What sports do you play?

Verb (Jouer) (15)	PVS + Sport (16)	Subordinate Clause (17)
Je joue I play **Tu joues** You (s) play **Il joue** He plays **Elle joue** She plays **Nous jouons** We play **Vous jouez** You (pl) play **Ils/Elles jouent** They m/f play	**au foot** (at) football **au rugby** (at) rugby **au basket** (at) basketball **au netball** (at) netball **au tennis** (at) tennis **au billard** (at) pool **aux cartes** (at) cards	**avec mes amis.** with my friends. **avec une équipe** with a team. **au centre sportif.** at the sports centre. **au stade.** at the stadium. **au collège.** at school. **après le collège.** after school.

Tu fais quels sport? What sports do you do?

Verb (Jouer) (18)	PVS + Sport (19)	Subordinate Clause (20)
Je fais I do **Tu fais** You (s) do **Il fait** He does **Elle fait** She does **Nous faisons** We do **Vous faites** You (pl) do **Ils/Elles font** They m/f do	**du footing** (some) running **du judo** (some) **judo** **du vélo** (some) cycling **du skate** (some) skating **de la natation** (some) swimming **de la danse** (some) dancing **de l'équitation** (some) horse riding	**une fois par semaine.** once a week. **chaque semaine.** every week. **tous les jours.** every day. **au parc.** at the park. **à la piscine.** at the pool. **avec ma famille.** with my family.

History

Economic Study: 1500 - Modern Day

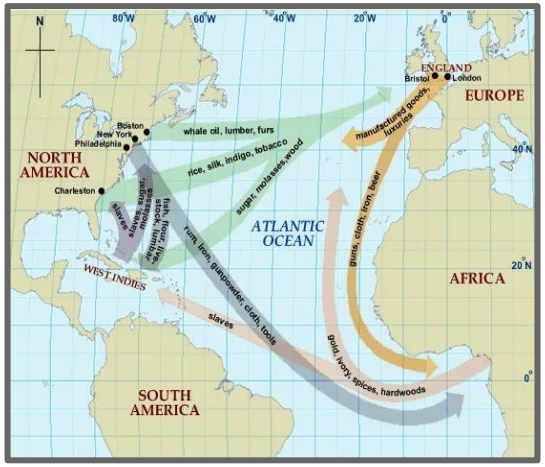
Economic: relating to money or wealth of a country

Political: relating to the government / ruling elite

Social: relating to society or the people

The Transatlantic Slave Trade

1492: Columbus lands in the Caribbean
1562: John Hawkins takes first ship of enslaved people to the West Indies.
1619: Transatlantic Slave Trade in North America begins with first ship full of enslaved Africans docking in Virginia colony (now USA)
1789: Publication of Olaudah Equiano's autobiography
1807: The slave trade is abolished by Great Britain
1833: Slavery is abolished in all British colonies
1839: Amistad slave ship rebellion



Exploration: travelling to find new parts of the world
Trade Triangle: the slave trade system Europe/Africa/America
The Middle Passage: the voyage from Africa to America, transporting the enslaved Africans.
Labour: work or workers
Trade: the action of buying and selling goods
Exploitation: The action of treating someone unfairly in order to benefit from their work.
Plantation: A large scale farm where crops such as coffee, sugar, and tobacco were grown.
Abolition: to oppose or end something
Overseer: a person who supervised the enslaved or factory workers
Olaudah Equiano: a former enslaved man who wrote about his life
Harriet Tubman: American abolitionist and activist:. She was the organiser of the 'underground railway'.
Thomas Clarkson: campaigned for abolition of slavery
Granville Sharp: used legal means to try to abolish slavery
William Wilberforce: MP who campaigned to abolish slavery

Empire

Empire: collection of colonies ruled by one state with means to gain power
Colony: an area controlled by a foreign power as part of an empire
Imperialism: a policy to extend a country's power and influence by building an empire
1497-1783: English seamen reached places Europeans had not previously been. Britain then set up colonies and used them to trade all over the world
1783-1924: By 1924 Britain controlled a fifth of the land in the world.
After 1924: After the World War One it became increasingly difficult for Britain to hold on to the Empire
Australia: used as a location for criminals. Criminals would be shipped to Australia, where they would be used as a workforce.
The Caribbean: Because of the warm climate, the Caribbean grew important crops that Britain could not.
Africa: Britain enslaved the people of Africa. The Gold Coast was important because it held lots of gold, ivory and silver.
India: Was an important producer of spices and of materials that were traded for money across the Empire
East India Company: A British trading company which had its own army. Helped the colonise India for the British Empire.

History

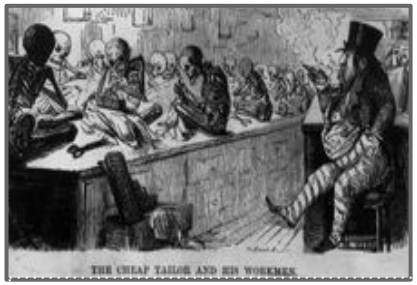
Economic Study: 1500 - Modern Day

The Industrial Revolution

1600s - 1700s Enclosure Acts
1712: Newcomen develops steam powered pump
1761: Bridgewater Canal opens
1765: James Watt's steam engine
1770: The Spinning Jenny invented by Hargreaves,
1771: Arkwright builds Cromford Mill textile factory
1790s: Canal Mania
1840's: Railway Mania
Industrial Revolution: change from an economy based on agriculture to manufactured goods
Rural: countryside areas/settlements
Urban: town or city areas/settlements
Steam power: using pressure from heating water to power machines
Iron: main metal used in manufacturing.
Canal: transporting heavy good by water
Turnpike Trust: Private toll roads
Domestic System: manufacturing items in the home
Factory System: manufacturing in a specially constructed building
Industry: The process of making products by using machines and factories
Mass production: The production of many products in one go e.g. textiles
Richard Arkwright: pioneered the factory system
George Stephenson: engineer and railway pioneer
Poverty: the state of not having enough resources for a minimum standard of living
Textiles: Cloth or clothing production by spinning and weaving
Apprentice: an child (sometimes orphans) who worked in factories in return for food and lodging
Workhouse: a place where poor people could get food and shelter in return for work
Depression: severe downturn in the economy, causes mass unemployment

AO2: Skills

Point: give a broad reason / factor that answers the question. Use the wording from the question to structure this sentence.
Evidence: give specific factual detail that relates to the point you have given. Specific Factual Detail: This could be facts / dates / people / statistics / laws.
Explanation: : explain why or how your evidence answers the question.
Explanation Phrases: : This meant that / This led to / Consequently / As a result/ This proves.

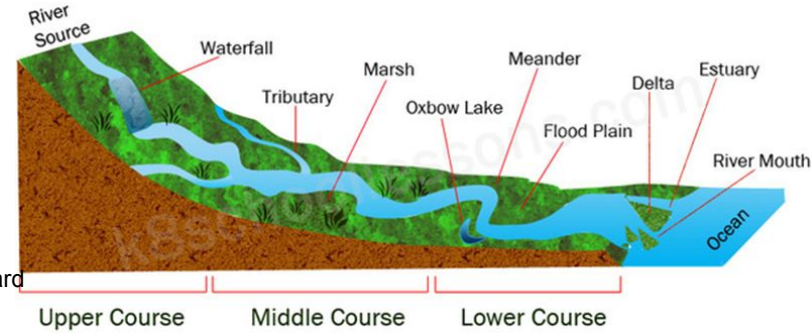


AO3: Skills

Inference: making judgements from sources
Message: what a source says
Purpose: why a source was created
Nature: the type of source
Origin: who created a source
Utility: what a source is useful for
Interpretation: a view / opinion on the past

We study History so that we can know the past, engage in the present and impact the future

Year 8 Geography - RIVERS



River landforms

Upper course

V-shaped valleys – steep valleys that are formed as the river erodes the land it passes over.

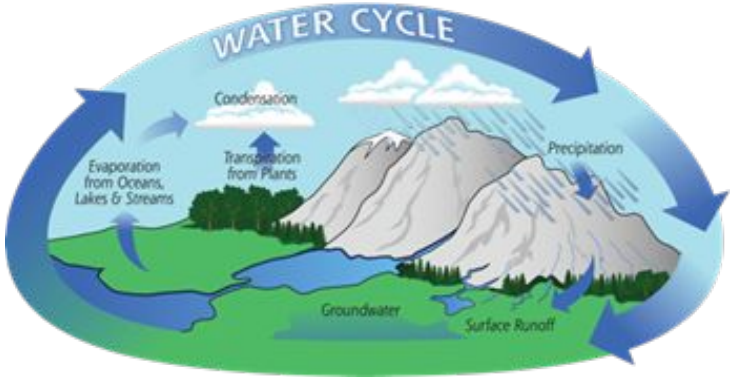
Waterfalls – steep drops formed by uneven rates of erosion as rivers pass over differing bands of hard and soft rock.

Middle course

Meanders – bends in the river that are made more extreme as water flows more forcefully around the outside bend, eroding the riverbank further there and leading to deposition around the inside bend.

Ox-bow lakes – when a meander bends so much that the river takes a shortcut and leaves part of the meander cut off from the rest of the river.

Levees – steep banks built up along a river intentionally or as a result of material being deposited on the banks during flooding.



Lower course

Deltas – material that is deposited and builds up at the mouth of a river.

Erosion

- Hydraulic action — as water rushes by, it forces air into cracks in the rock, which continue to widen and break.

- Abrasion — sand and rock are thrown against the riverbed and banks, wearing them away like sandpaper.

- Attrition — pieces of rock are thrown against each other, causing sharp edges to break off and eventually becoming smaller and rounder.

- Corrosion — weak acids in the water break down the rock in the riverbed and banks.

Transportation

- Traction — large stones are rolled along the riverbed.

- Saltation — smaller stones bounce along the riverbed over one another.

- Suspension — small particles of rock, dirt, and plants float in the water of a river, making it look cloudy.

- Solution — particles of rock and chemicals are dissolved and carried along in the water unseen.

Deposition

Rivers **deposit** (drop) eroded material as they lose speed when:

- the river becomes shallower

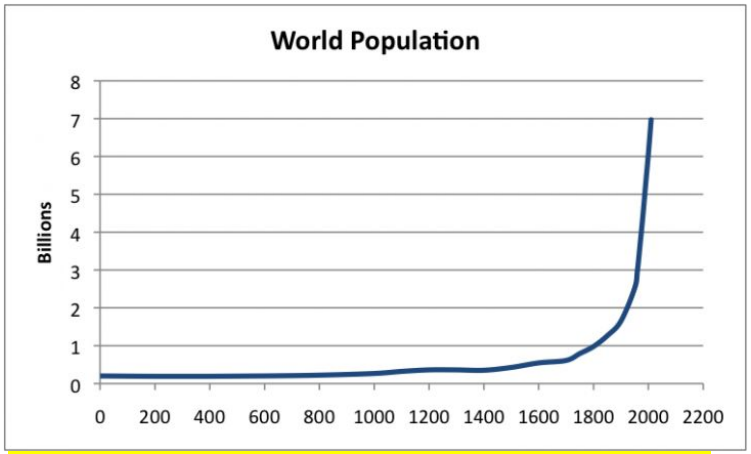
- the amount of water is reduced

- the amount of material being carried increases

- the river reaches its mouth

They do this because they no longer have the **energy** to carry it.

Geography - Population and Migration



World Population is increasing exponentially - what will this mean for the planet and how can we manage it?

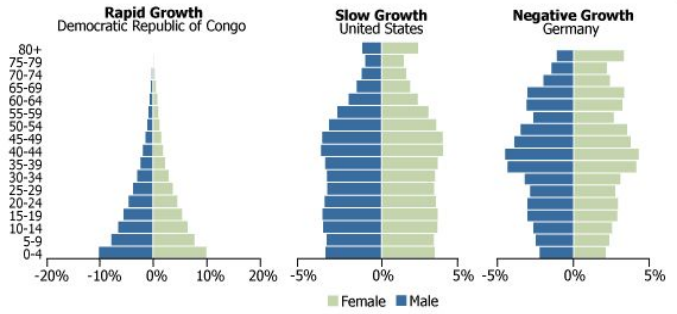
Mexico to USA case study

There is a 2000 km border between the USA and Mexico as illegal migration is a huge problem. U.S. Border Patrol guards the border and tries to prevent illegal immigrants from entering the country. Illegal migration costs the USA millions of dollars for border patrols and prisons.

Many Americans believe that Mexican immigrants are a drain on the economy. They believe that migrant workers keep wages low which affects Americans.

However other people believe that Mexican immigrants benefit the economy by working for low wages.
Mexican culture has also enriched the USA border states with food, language and music.

Key Term	Definition
Population	All the inhabitants of a particular place. E.g The population of the UK is just over 65 million.
Migration	The movement of people from one place to another, usually to live or to work.
Life Expectancy	The average period (years) that a person would expect to live. This varies from country to country.
Birth Rate	The number of live births per 1000 people per year.
Death Rate	The number of deaths per 1000 people per year.
Natural Increase	Birth Rate is higher than Death Rate so the population grows.
Natural Decrease	Death Rate is higher than Birth Rate so population lowers.
Immigration	The movement of people into a country to live or to work.
Emigration	The movement of people out of a country to live or to work.
Exponential Growth	When the rate of growth increases all the time creating an ever steeper upward curve.
Population Density	The number of people living in a given area. E.g 350 people per KM squared.
Sparsely Populated	A low number of people living in a given area. E.g 3 people per KM squared.
Urban	Relating to towns or cities.
Rural	Relating to the countryside.
Push Factor	Factors that make you want to leave an area E.g War, famine, lack of education.
Pull Factor	Factors that make you come to a certain area E.g low levels of crime, better quality housing.

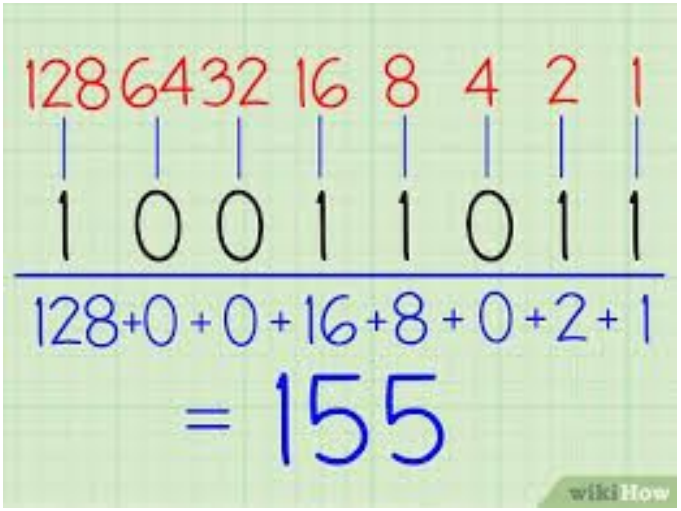


Population pyramids show the makeup of a country in terms of age and gender. Look at the following website and make comparisons between the population pyramids of poor and rich countries.
https://www.populationpyramid.net/world

Year 8 Computing

Computer Architecture, Memory and Storage

Internal Parts of a Computer (Inside the box)	
Motherboard	The main circuit board of a computer that holds most of the components of the computer together.
Processor/CPU	This processes all the instructions in the computer needed to perform a task. It follows the fetch-decode-execute cycle picture on the right.
Random Access Memory (RAM)	A temporary storage for the computer. It stores unsaved works and open programs.
Hard Drive	A storage device that holds data permanently for when the computer is switched off.
Graphics Card	Processes all of the instructions to do with graphics on the screen. Takes the load off the CPU.
Power Supply Unit	The part of the computer that gives power and electricity to all of the other parts.

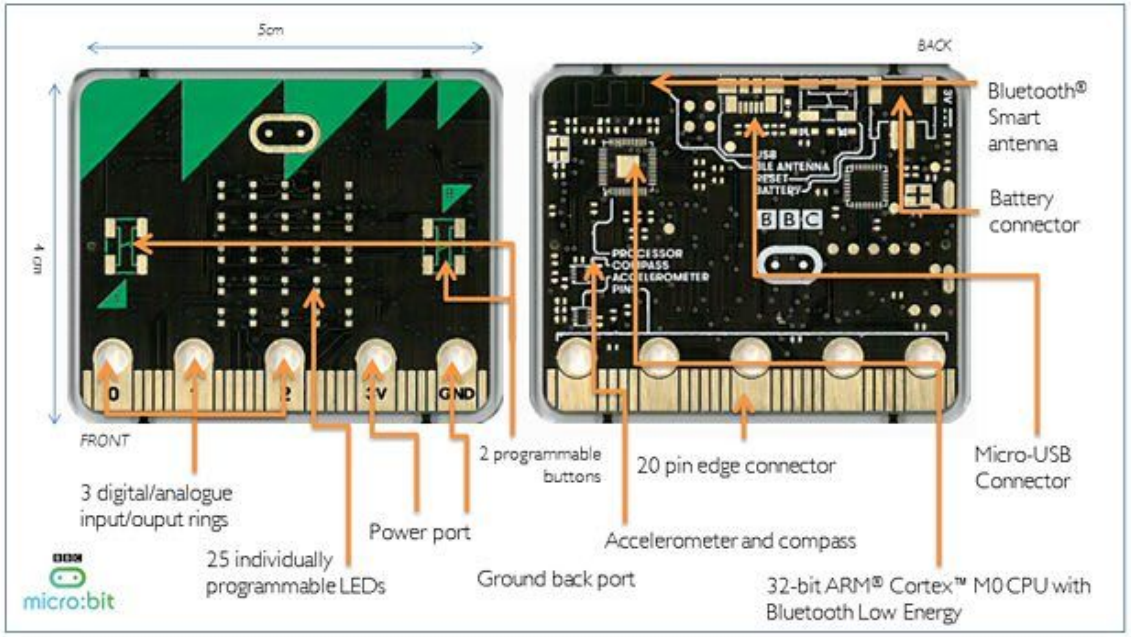


Different Types of Storage	
Optical	A type of storage that uses a laser to make marks on a disk to store data permanently. These marks can be read by a laser to put data back into a computer.
Magnetic	A type of storage that uses magnetism to magnetise parts of a disk to store data.
Solid State	A type of storage that has no moving parts. It uses electricity and switches to store data.

Units of Data	
Bit	A single binary digit. A 0 or a 1.
Nibble	4 bits
Byte	8 bits
Kilobyte	1000 bytes
Megabyte	1000 kilobytes
Gigabyte	1000 megabytes
Terabyte	1000 gigabytes
Petabyte	1000 terabytes

Year 8 Computing

Python Programming on the BBC Microbit



BBC Microbit	
Sensor	An input device for a computer that can measure part of the outside world. We can use these in programming to trigger part of our code to work when something in the outside world happens.
Accelerometer	A type of sensor that can measure if the device has moved or not and how far it has moved and in what direction.
Thermometer	A type of sensor that can measure the temperature.

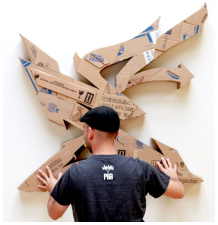
Key Terminology	
Python	A text based programming language that is very close to written English.
Algorithm	A set of steps or instructions to complete a task.
Variable	A place to store a single piece of data.
Input	Where data is entered into a computer by a user/human.
Output	Where data is displayed by the computer. Examples include: text, images, sound, or video displayed on a monitor or through speakers.
Assignment	When one variable is set equal to another e.g. x = y
Sequence	When code is run in a specific order, usually from top to bottom.

Selection
`IF`
`ELIF`
`ELSE`
	Also called a decision, when a program takes a course of action based on an answer.
	`if answer == 0:`
	`  print("Even")`
	`else:`
	`  print("Odd")`

Loops
`While`
`For`
	When one or more lines of code are repeated.
	`for i in range(11):`
	`  print ("The count is: " + str(i))`

Year 8 Art - Graffiti

Can graffiti be transformed into valuable art?



Alecks Cruz is a successful artist that uses graffiti style lettering to create his sculptures. His work is showcased in galleries across the world.

1. Born in Chicago in 1984, Alecks is a self-taught visual artist and **graphic** designer
2. 2011 when Alecks began gaining local recognition by winning design competitions.
3. He explores the **composition** of individual letters and the unique beauty that each character has to offer.
4. Alecks took his love for graffiti art and constructs cardboard graffiti pieces that quickly became his **trademark**.
5. His work shows arrows, barcodes and colours that pop out with hard angles, straight sides and swooping edges.

Is graffiti an acceptable art form?

- **Graffiti** art as a term refers to images or text painted usually onto buildings, typically using spray paint. Graffiti is marks, scratchings or drawings made on a surface in a public place.
- Graffiti art has its origins in 1970s New York, when young people began to use spray paint and other materials to create images on buildings and on the sides of subway trains. Such graffiti can range from bright graphic images (wildstyle) to the stylised monogram (tag).
- Today, many graffiti are very complicated mixtures of writing and pictures. When done without a property owner's permission it is considered **vandalism**. Sometimes it is just a person's name or a word. Sometimes it is as a public **political protest**.

A **stencil** is device for applying a pattern, design, words, etc. to a surface, consisting of a thin sheet of cardboard, metal, or other material from which figures or letters have been cut out, a coloring substance, ink, etc., being rubbed, brushed, or pressed over the sheet, passing through the **perforations** and onto a surface.

Urban Art

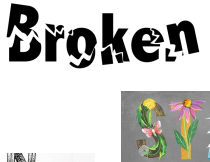
What messages do urban artists try to communicate, and how do they do it?

Lettering or hand lettering is a creative skill to create beautiful handwritten letters or hand-drawn designs and art. Lettering styles allow the artist or writer to get complete freedom on the canvas and explore numerous styles, designs, and methods. For example, lettering styles do not just have to be about pen and paper but can be used with paint, brush, watercolors, and several other materials.

Lettering styles are still quite significant despite the rising popularity of documents and artwork now being made digitally. It is important especially for young children, as handwriting and drawing have proven to help young minds unleash their creative flow and even grasp language more effectively.

Some of the other ways lettering styles are used are:

- Handwritten letters
- Blueprints
- Comic books
- Decorative letters
- Posters
- Custom graphics
- Print advertisements
- Graffiti
- Chalkboard



Year 8 Design - Memphis Design

Do design movements still have an influence today?

A “movement” is a style in art or design that has a specific philosophy or ideal and is followed and promoted by a group of artists for a defined period of time.

As a designer, inspiration can come from anywhere. But sometimes influences, attitudes and approaches come together to form a coherent movement that has a knock-on effect around the world.

There are many art and design movements of different sizes and significance over the centuries – some have the same style or a group of artists or designers in a particular place.

Whether they happened 150 years ago or 30 years ago, the impact of many of these is still felt today – you may even have felt their influence without knowing it. These things often move in cycles, particularly with the trend for retro aesthetics. So a little knowledge of art and design history goes a long way.

Design Movements

Why change what is already a successful design?

Just because something exists and it works, doesn’t mean that it doesn’t need to be designed again. Different influences and factors can change the need for an already successful idea. For example, the wheel was invented in the 4th millennium BC. This design worked then, and works now. But would you want a set of those wheels on your lamborghini?

Development is about creativity and exploring ideas in different ways.

Development is about selecting ideas, visual elements, compositions and techniques from an initial idea and using them in new ways.

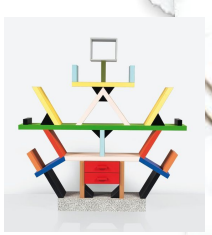
It is important that you don't become too attached to your first idea.

Don't worry if the work you produce isn't perfect. It is an important part of the creative process to try out new things and to make creative decisions based on what works and what doesn't, what looks good and what doesn’t.

And don't worry if you try something that doesn't work. Showing creativity and testing out ideas is an important stage of the design process.. The next step would be to refine your work and produce a more finished result as a final idea.

Why was Memphis a radical movement?

- In the early 80s, Italian designer and architect Ettore Sottsass founded Memphis, a group of artists and designers who became known for their bright and bold furniture design
- Although many people ridiculed their work, the Memphis group were **groundbreaking**. Their use of clashing colours, **haphazard** arrangements and brightly coloured plastic laminate was previously unseen. At the time, objects were usually designed to be **functional**, not decorative. Memphis changed this with a more creative approach to design, where they poked fun at everyday objects by designing them in a way that was unusual.
- One of the members of the Memphis group, Nathalie Du Pasquier, collaborated with Danish company HAY to create Memphis-esque patterned bags in 2013. A year later, she designed a collection for the fashion company American Apparel. Elsewhere in fashion, Memphis' work has served as the inspiration for fashion collections by designers such as Dior and Missoni.



Drama Keywords	
Melodrama	A type of play where plots are predictable, characters are stereotypes and good overcomes evil.
Stock character	A stereotypical person whom audiences readily recognise from frequent recurrences in a particular genre.
Stereotype	A widely held but fixed and oversimplified image or idea of a particular type of person or thing.
Exaggeration	Making something larger or greater than it is naturally.
Thought Tracking	A thought-track is when a character steps out of a scene to address the audience about how they're feeling.
Pace	The speed the dialogue is delivered to the audience, or the speed of the movement.
Transitions	How to change from one scene to another - could be smooth, could be abrupt, could use lighting/sound.
Blocking	The position and movement of the actors in a scene when you are rehearsing.
Verbatim	Creating a play using precise words spoken by people interviewed about an event or topic

Year 8 Drama - Autumn Term 1
Melodrama

Key Knowledge

- We will where Melodrama fits in to the History of Theatre timeline
- We will learn about what Melodrama plays were like, and how Melodrama techniques have been used in other styles of theatre
- We will create our own Melodrama performances, learning about stock characters and their roles within the play
- We will explore the story of Sweeney Todd and create an assessed performance in a melodramatic style



Year 8 Drama - Autumn Term 2
World War 1

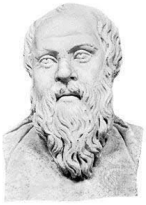
Key Knowledge

- We will look at the conditions of the trenches in WW1 (1914-1918) and explore stories of real life soldiers
- We will be using **Tableaux**, **Thought-Tracking**, **Movement** and **Soundscape** to create *atmosphere* and *mood*.
- We will devise our own performances, and also use some scripted elements to develop our performances
- We will use **tone of voice**, **body language**, **facial expression** and other skills to portray characters



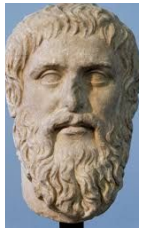
Philosophy - love of wisdom

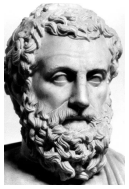
Philosophers - investigating the ideas of people who have shaped our world



Socrates (born c470BCE) gave us Socratic questioning; a way of investigating truth.

Plato (born c427 BCE) was a rationalist. He said you need to use your ***brain*** to work out what is true – reason it out. He thought that ordinary people were like prisoners who had got trapped in a cave. The only little bit of the outside world the prisoners got to see was like shadow puppets. The firelight made the shadows of the outside world look like MONSTERS.

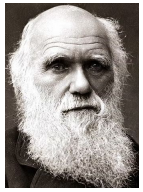




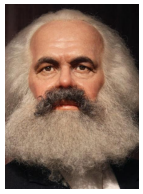
Aristotle (born c384 BCE) was a student of Plato. He strongly disagreed with Plato. He believed you need to use your senses to find out what is true – obviously. He was an empiricist.

Thomas Aquinas (1225-1274 CE): The First Cause argument and the Design argument both prove that God exists as he is the only one who could have made the universe.

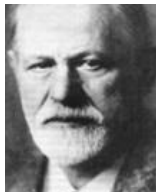
Descartes (born 1596 CE) thought he couldn't trust anything. He did reason that he was a thinking thing; 'I think, therefore I am.' His trademark argument was that the idea of God is imprinted on the brain. God is perfect and so must exist.



Charles Darwin (1809-1882 CE) wrote On the Origin of Species and introduced the theory of evolution by natural selection. He said the world was not made quickly and was not made exactly as it is today. He saw the results of natural selection in birds; survival of the fittest.



Karl Marx (1818-1883 CE) was an atheist. He described religion as 'the opium of the people.' He compared religion to an addictive, pain killing drug that enabled the ruling classes to oppress the working classes.



Sigmund Freud (1856-1939 CE) was a psychologist who said we are all scared of not having a parent, injustice and dying. He said religion was a 'cure' for the fear of these 3 things.

Humanism

Humanists believe you should use reason, evidence and science to find out what is true. It is more than not believing in God – it is about how you live your life; make the absolute most of this life.

Key Terms

Rationalist: Using your logic
Empiricist: Using your senses
Natural law: God given rules that are innate
Evolution: Survival of the fittest
Psychologist: someone who studies the human mind and human emotions and behaviour
Atheist: someone who believes in no God
Theist: someone who believes in one or more gods
Agnostic: someone who is not 100% sure there is or is not a God or someone who thinks you cannot know for certain whether there is a god
Humanist: someone who believes that human reasoning is the highest authority.

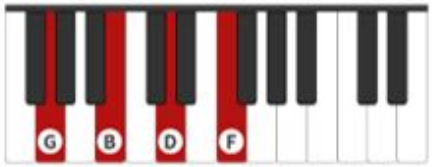
Year 8 Music: The Blues

Spirituals, Work songs and the Blues

Definitions and theory

I= Tonic	V= Dominant	IV= Subdominant	
I	I	I	I
IV	IV	I	I
V	IV	I	I

1. **12 bar blues** = music based around this chord progression
2. **Tonic** = chord I
3. **Subdominant** = chord IV
4. **Dominant** = chord V
5. **Improvisation** = making it up on the spot
6. **Turnaround** = where you substitute chord V in bar 12
7. **Seventh chord** = when an extra note is added to a chord, 7 notes above the root, i.e. G7:



Chords and Roman numerals

1. Whatever key you are in, count that as '1' (i.e. in C major, 1 is C)
2. From there, count up to 4 and 5 to work out what chords are IV and V (in C, IV is F and V is G)

Walking bass line

A **walking bass** line generally consists of notes of equal duration typically crotchets that create a feeling of forward motion.

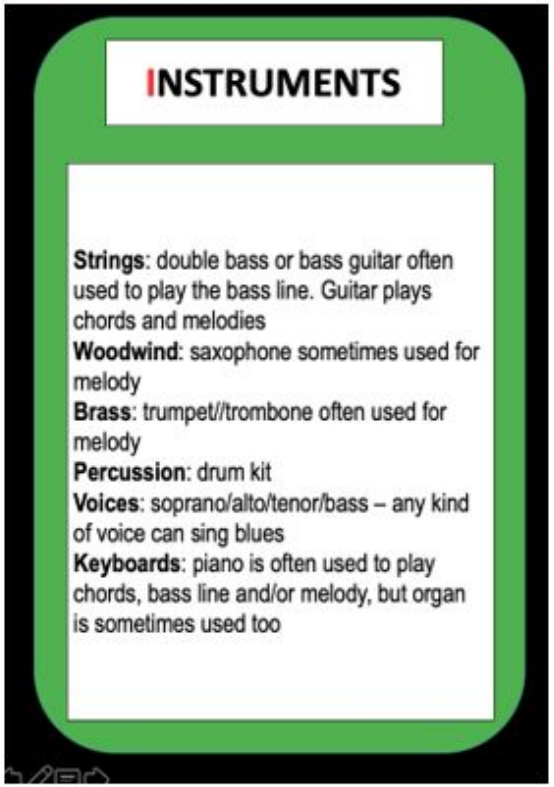
Riff

Blues riffs are played in response to a vocal melody. They are often based on the "blues-scale", which can be used for improvisation.

Blues scale

This scale is essentially the pentatonic scale plus one chromatic note, often called the blue note. This extra step gives the blues scale that unmistakably bluesy sound.

Instruments for blues



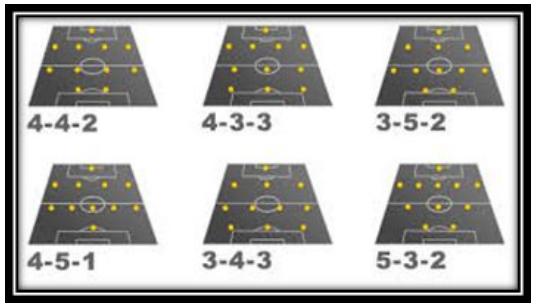
Year 8 PE - Football

KEY TERMS

- Back Foot
- Touch
- Formations
- Corner
- Lofted Pass
- Goal kick
- Jockeying
- Attacking
- Throw-in
- Free kick
- Scanning

SKILLS IN ISOLATION

★ Passing
★ Tackling
★ Dribbling
★ Running with the ball
★ Volleying
★ Control



POSITIONS

Goalkeeper – the player who can use their hands and is the last line of defence to stop the ball entering the goal

Defenders – players who have the main responsibility to stop the opposition from scoring. They also start the attacks.

Midfielders – lie between the defence and the attack. Responsible for stopping oppositions reaching the defence and providing the attackers with opportunities to score.

Strikers – responsible for scoring and setting up goals

COMPONENTS OF FITNESS

Cardiovascular Fitness – being able to exercise the whole body for long periods of time

Agility – Change direction quickly with control

Speed – the rate in which you perform a movement

Strength – the amount of force a muscle can generate

Power – performing a forceful movement as quickly as possible

Coordination – moving two or more body parts together

RULES AND REGULATIONS

• Game is started by a kick off in the centre of the pitch.

• In a full sided game each team consists of 11 players.

• If the ball goes off the side of the pitch it is a throw in to the team that didn't touch the ball last.

• If the ball goes off the end of the pitch it is a corner or a goal kick depending who the ball touched last.

• Depending on where the incident takes place, a free kick or a penalty is awarded if the player in possession of the ball is illegally infringed.

• The goalkeeper is the only player allowed to touch the ball with their hands and can only do this inside their 18 yard box.

• To score a goal, the ball must cross the opposition's goal line.

• If a player is past the opponent's last defender and in the opposition half when the ball is passed they are offside and a free kick is awarded to the opposition team.

Year 8 PE - Gymnastics

KEY TERMS

Sequence; A sequence is a series of movements which flow together. When composing a sequence it must have a clear start and end. Think of this at the Capital letter to start a sentence and a full stop to end it.

Any gymnastics routine should aim to be aesthetically pleasing and display the following;
- Extension
- Body tension
- Control
- Clarity of shape
- Resilience
- Flow

PERFORMANCE

Apparatus
Pommel horse, rings, high bar, parallel bars, vault, balance beam, asymmetric bars.

Floor routine
Create a sequence combining and linking key shapes and skills.

Rhythmic routine
Ball, Clubs, Rope, Ribbon, Hoop

BIG Questions

- ➔ Can you lead a warm up with a partner?
- ➔ What does the term aesthetically pleasing mean?
- ➔ What are the main phases of any vault?
- ➔ What safety measures should be in place in gymnastics

COMPONENTS OF FITNESS FOR GYMNASTICS

Balance	Being able to keep your body stable when moving or still.
Strength	The amount of force generated by a muscle.
Body Composition	How much your body is made up of muscle and fat?
Flexibility	The range of movements you have around a joint.
Co-ordination	The ability to use 1,2 or more parts of your body at the same time.
Power	This combines strength and speed so muscles contract very quickly.

RULES AND REGULATIONS

A gymnast must create her own routines at an appropriate skill level for his/ her degree of difficulty.

No jewellery, body piercing or adornments of any kind are permitted

A judge panel usually scores gymnastics competitions.

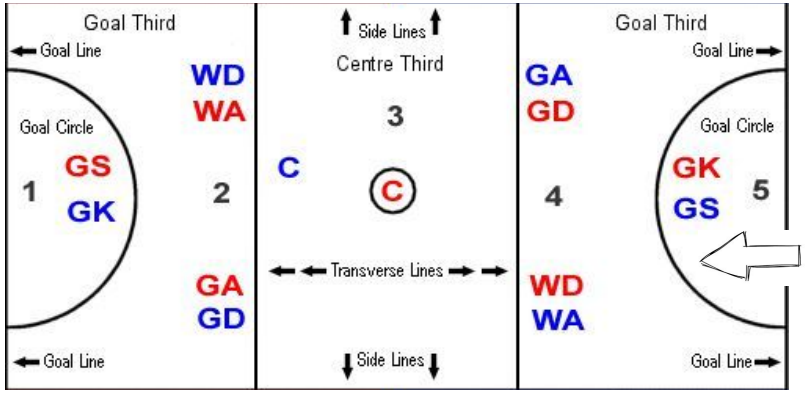
Gymnasts have two different **scores**, the D **score** (difficulty of the routine) and the E **score** (execution of the routine aka how neat and tidy it is!).

All **gymnasts** begin with a 10.0 execution **score** which then has points removed for faults such as bent legs, arms and falls.

Year 8 PE - Netball

KEY TERMS

Court – The area netball is played on.
Goal Third – The 2 areas of the court including the shooting circle.
Centre Third – The area in the middle including the centre circle.
Umpire – The name of the person who officiates the match.
Other areas of the court: back line, side line, centre circle, shooting semi-circle.
Intercept / Interception – Gaining the ball by getting in between a pass from the opposing team.
Possession – Keeping the ball.



A netball match lasts for 4 x 15 minute quarters= 1 hour

POSITIONS – BLUE TEAM

How many players on 1 team?
Where can they go?

Defence:	Attack:
GK – 1 & 2	GS – 4 & 5
GD – 1, 2 & 3	GA – 3, 4 & 5
WD – 2 & 3	WA – 3 & 4
C – 2, 3 & 4	

Which areas can the RED team go into?

BIG Questions

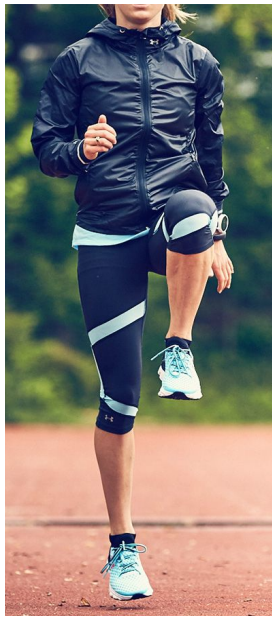
1. Can you identify or perform the main skills in netball?
2. Can you identify the key components of fitness required for netball and give examples?
3. Can you explain the difference between a free and penalty pass?

SKILLS IN ISOLATION

Passing – chest, shoulder, overhead (bounce).
Handling – ball control.
Catching – 1 and 2 handed.
Footwork – split and 1-2 landings, pivot to change direction.
Attacking – holding space, dodging to get free from a player.
Shooting – 1 or 2 handed.
Defending – stage 1 man to man marking, stage 2 defend the pass.

HOW TO WARM UP FOR NETBALL AND OTHER SPORTS

A good warm up must consist of 3 parts:
1 – **Pulse raising** activity e.g. jogging
2 – **Stretches** (dynamic and static)
3 – **Skills practice** e.g. passing



APPLICATION OF SKILLS

- Set plays e.g. centre pass, back lines
- Decision making
- Demonstrate communication on court
- Adapt to the environment

RULES AND REGULATIONS

Rules resulting in a FREE PASS (Involves 1 player):
FOOTWORK – A player must not move their landing foot before passing the ball.
OFFSIDE – A player must stay in their playing area. See diagram above.
HELD BALL - The ball can only be held for 3 seconds by a player.
REPLAYING – A player must not bounce the ball to themselves when playing.

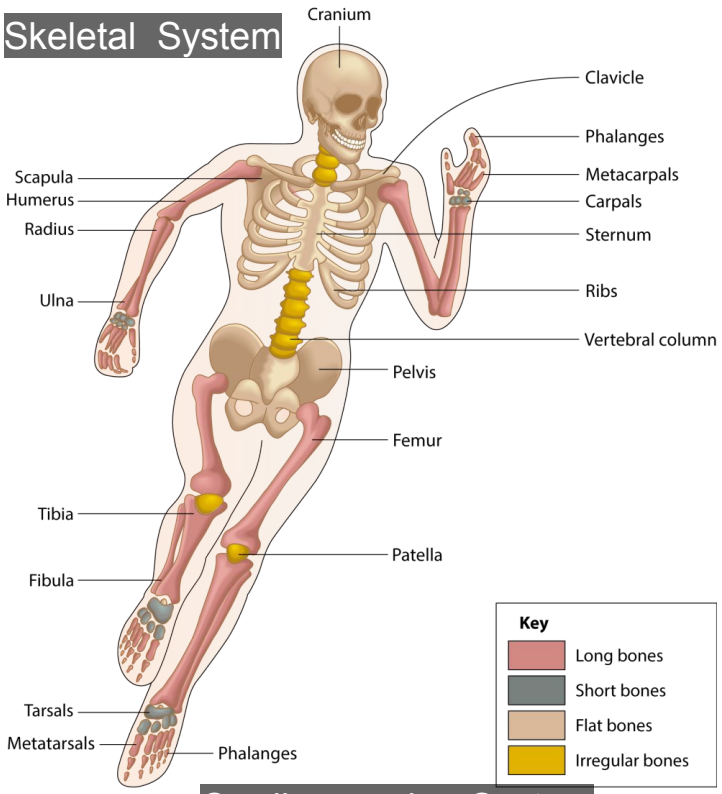
Rules resulting in a PENALTY PASS (Involves 2 players):
CONTACT – A player must not touch another player whilst on court.
OBSTRUCTION – Any player must stand 1 meter away from the player with the ball.

YEAR 8 PE THEORY

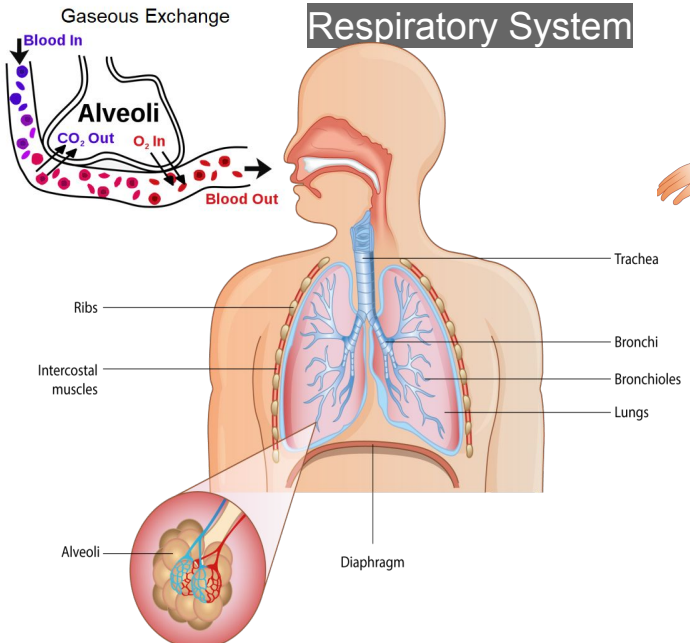
Short term effects of exercise

Short Term Effects of Exercise	What happens to the following when we exercise?
HR	Your HR will increase as there is a greater demand for oxygenated blood in your working muscles
Breathing rate/Depth	As there is a greater demand for O^2 in the muscles, our lungs have to work harder. Our breathing becomes more frequent and deeper
Sweat/Heat	When our muscles produce energy, heat is given off as a by product so our bodies temperature will increase. Our CV system will divert blood to the surface of the skin to release this heat causing sweat to form.
Lactic Acid	When we exercise at a higher intensity (anaerobically), our muscles produce energy without O^2. A by product of this process is Lactic Acid. This builds up in our muscles and causes them to fatigue. You will have felt this before after a long sprint!

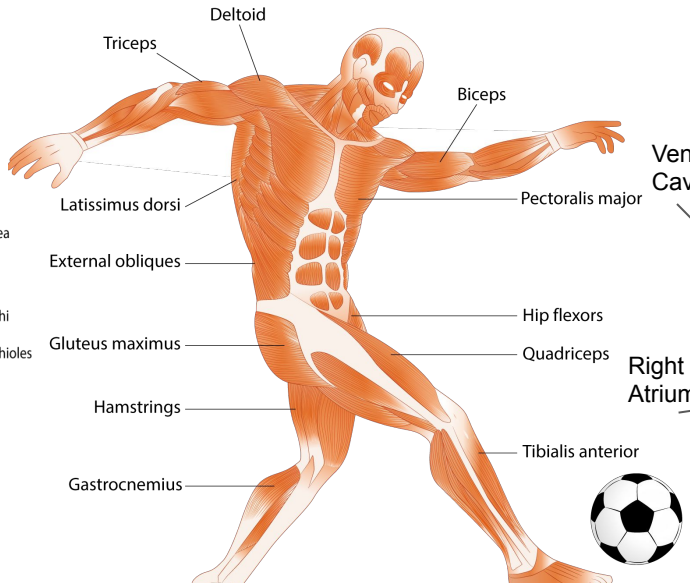
Skeletal System



Respiratory System



Muscular System



Cardiovascular System