

Knowledge Organiser

YEAR
8

“I wasn't the fastest, the strongest, the fittest, but I thought I could make myself the most committed.”

K E V I N S I N F I E L D

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



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 clear the key elements needed in a topic to have an excellent understanding of it. 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 that means you will be spending 20 minutes a week learning information from your knowledge organiser for each subject. In year 9 this will be 30-40 minutes. Teachers will test you once a week to make sure that you are completing the homework and remembering your knowledge. Teachers and form tutors will be regularly checking that you are revising.

HOW?

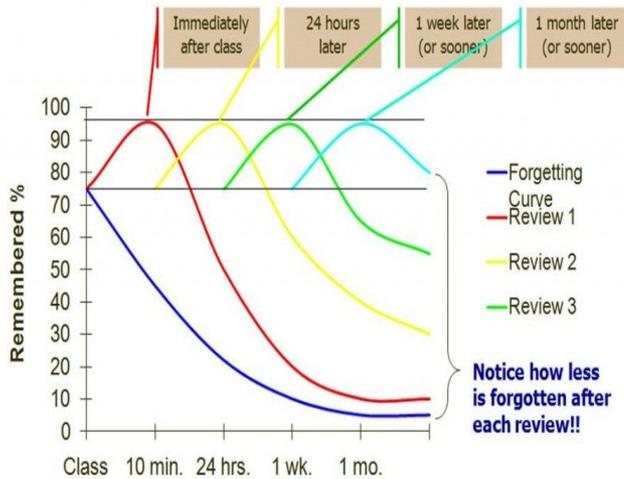
How will my teachers use them?

Each subject will set homework once a week that will help you to learn your knowledge organiser. They will also test you once a week on certain parts 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 revise?

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 so that when you revise, you are just recalling knowledge that you have already stored. Also, you will have practised lots of revision techniques whilst revising your knowledge organisers over the past 5 years, which will help prepare you for the 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. So 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](#)

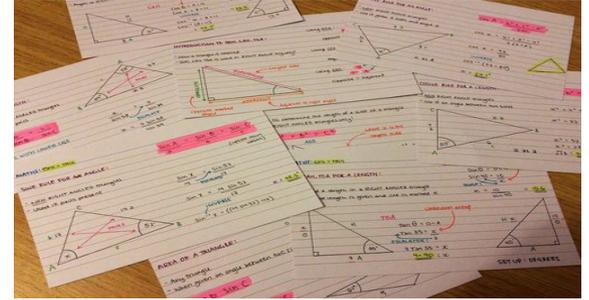
How we learn at Redmoor

Flash cards

Simply create questions on one side, answers on the other. Colour code the cards for specific topics. Post it notes can be useful for keywords and timelines.

Once you have created your flash cards, you need to think about how you will use them effectively. There is a link below to Leitner system of using flashcards:

[YouTube: The Leitner Method](#)



Dual coding



Dual coding is the process of combining verbal materials with visual materials.

Simply take information that they are trying to learn, and draw visuals to go with it.

Learn more about dual coding here:

[Link To The Learning Scientists](#)

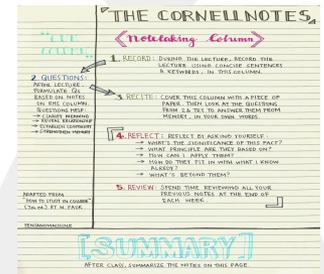
Try to come up with different ways to represent the information. For example: a timeline, a cartoon strip or a diagram of parts that work together.

Cornell Notes

This method can be used in your revision books as a great method to get you to 'think' about your revision.

Simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary



THINK HARD, WORK HARD, GO FAR

How we learn at Redmoor

Spacing and interleaving

Don't revise your all topics in one go (cramming). Instead, you should revise 'chunks' of a topic for small amounts of time (15-30 minutes) and then move onto another 'chunk' from a different Topic.

Eg. topic 1 cells, topic 2 digestive system

This will improve your memory!

Massed presentation



Spaced and interleaved presentation



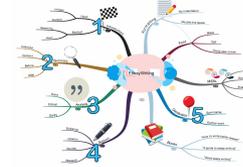
Mind Maps

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.

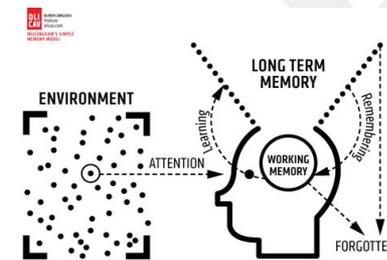
Mind maps help with memorisation of key knowledge as it helps to organise information and begin to make links and connections to different pieces of information.

The use of visual images helps your brain to memorise the information with simple words next to them - links to dual coding!



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/>



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.*

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."

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.

Grammar Errors

I have played tennis. ✓ I of played tennis. ✗

I should have / should've played tennis. ✓

I of / 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 quickly, passing the ball brilliantly. I played amazingly. ✓

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!*

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*

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.*

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

# Contents Page

English	1-2
Maths	3-4
Science	5-7
MFL	8
History	9
Geography	10-11
ICT	12-13
Art/ Design	14-17
Drama	18-19
Music	20
PE	21-22



## 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

# Redmoor English Department: The Art of Descriptive Writing

<b>BIG QUESTION:</b> What's the point of 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 two standalone 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.

<b>BIG QUESTION:</b> How can sentences be manipulated to create effects?	
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.
Paragraphs	<p>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.</p> <p>When writing about a new <b>TIME</b> or about a different <b>PLACE</b>, When writing about a new <b>TOPIC</b> or about or as a new <b>PERSON</b>.</p>

Sentence Upgrades	
-ing	<b>Grabbing</b> her bag, the woman stormed out of the shop.
Preposition	<b>Under</b> the dark clouds, the lampost gleamed.
Adverb	<b>Cautiously</b> , the girl reached out to grab the gun.
Connective	<b>Despite</b> the weather, the girl went outside.
-ing	<b>Grabbing</b> her bag, the woman stormed out.

<b>BIG QUESTION: How are words powerful?</b>	
Adjective	An adjective describes a noun. E.g 'the <u>tall</u> 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'.

<b>BIG QUESTION: Why does structure matter?</b>	
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.
First Person Perspective	Written as if the narrator is a character, observing or taking part in the scene..
Third person perspective	Written as if the narrator is talking about the characters and events, but not necessarily a character in them.
Omniscient narrator	A narrator who is god-like, able to move from place to place and character to character, realigning the reader to any perspective they wish to share.

Sentence Upgrades	
<b>Pair of adjectives</b>	<b>Strong and bright</b> , the sun shone onto the forest below.
<b>Triple noun</b>	<b>Owls, crickets, mice</b> : the woods were alive with noise.
<b>Triple adjective</b>	<b>Thin, bare, skeletal</b> : the trees hung over him.
<b>Verb adverb</b>	<b>Perched precariously</b> on the branch, the bird sang.
<b>-ed</b>	<b>Petrified</b> , the man stood fixed to the spot.

## Redmoor English Department: Poetry - World War 1 Poetry (1914-1918)

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.
Pastoral	Writing which gives an idealised version of life in the countryside.
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.

BIG QUESTION: Why do form and structure matter?	
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.

BIG QUESTION: How are words powerful?	
Direct address	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. Also, something that is very important or urgent.
Irony	The use of words that actually 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.

CONTEXT: WORLD WAR I	
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	Metal projectiles filled with explosives.
Shell Shock	The post traumatic stress disorder many soldiers suffered from.

## Percentage Change

$$\text{Percentage change} = \frac{\text{Change}}{\text{Original}} \times 100$$



Number of TVs sold increased from 50 to 60



Percentage change =

$$(60-50) \frac{10}{50} \times 100$$

=20% percentage increase

## Money



## Index Notation

Index Notation

$$a^2 = a \times a$$

$$4^3 = 4 \times 4 \times 4$$

A shortcut for writing repeated multiplications by the same number or letter

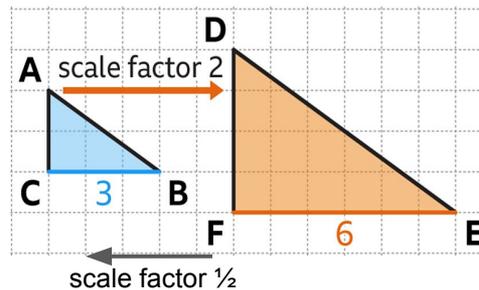
## Index Laws

A set of rules for calculating with numbers in index notation

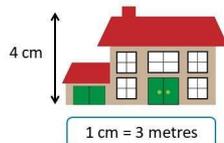
Rule	Example	
$a^m \times a^n = a^{m+n}$	$2^5 \times 2^3 = 2^8$	-add powers
$a^m \div a^n = a^{m-n}$	$5^7 \div 5^3 = 5^4$	-subtract powers
$(a^m)^n = a^{m \times n}$	$(10^3)^7 = 10^{21}$	-multiply powers
$a^1 = a$	$17^1 = 17$	-number/letter stays same
$a^0 = 1$	$34^0 = 1$	-always 1

## Scale Factor

The **scale factor** is how much an object has been enlarged or reduced by.



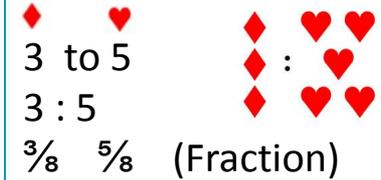
## Scale Drawing



A ratio of the measurement on a drawing compared to the measurement of the real / original thing  
 $1\text{cm} : 3\text{m}$   
 $1\text{cm on paper} : 3\text{m in real life}$

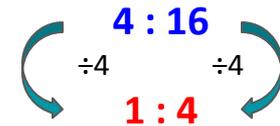
## Ratio

Ratio compares the size /value of **one part to another part**.  
 A ratio can be written:



## Ratio 1:n

Simplify ratio so first number is 1 and second number (n) is worked out ( or vice versa n:1)



## Significant Figure

The most important / significant digit in a number

It is the first number on the left.

5 6 0 2 7  
 ↑  
 1st sig fig

0.00497  
 ↓  
 1st sig fig

In a decimal fraction, it is the first non-zero number after the decimal point.

# SEQUENCES

## Arithmetic (linear) Sequence

Sequence where same difference is **added + or subtracted -** 4, 6, 8, 10, +2 +2 +2

1, 2, 4, 8, 16, ...

## Geometric Sequence

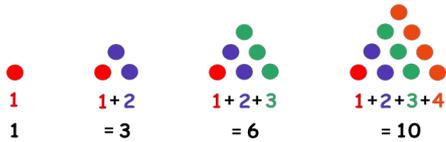
Sequence created by **multiplying or dividing** each time to get the difference between each term



## Fibonacci Sequence

Sequence where 2 previous numbers are added to find the next term (number)

0	1	1	2	3	5
0 + 1 =	1	1 + 1 =	2	1 + 2 =	3
		1 + 2 =	3	2 + 3 =	5



## Triangular Numbers

Number of dots that can make an equilateral triangle

## nth term = an +/- b

nth term = is a formula to find any term in an arithmetic sequence.

The 'n' stands for the position in the sequence.

$3n + 2$  ← nth term for this sequence

n = position number

n = 1	n = 2	n = 3	n = 4	n = 5
5	8	11	14	17
Term 1	Term 2	Term 3	Term 4	Term 5

# Solving Linear Equations

## Balancing method

$$8a - 5 = 11$$

$$+5 \quad +5$$

$$8a = 16$$

$$\div 8 \quad \div 8$$

$$a = 2$$

## Function machine method

$$8a - 5 = 11$$

$$a \rightarrow \times 8 \rightarrow -5 \rightarrow 11$$

$$2 \leftarrow \div 8 \leftarrow +5 \leftarrow 11$$

$$a = 2$$

## Unknown on Both Sides

$$3x + 4 = x + 12$$

← x appears on both sides of an equation

$$-x \quad -x$$

$$2x + 4 = 12$$

$$-4 \quad -4$$

$$2x = 8$$

$$\div 2 \quad \div 2$$

$$x = 4$$

## Simple interest

$$I = p \times r \times t$$

- p = money borrowed or invested
- r = annual interest rate
- t = the length of time you borrow or invest

## Simple Interest:

5% for 4 years on £240  
 $240 \times 5/100 \times 4 = £48$   
 Total = £288

## Compound Interest:

5% for 4 years on £240  
 $240 \times (1+5/100)^4 = £291.72$

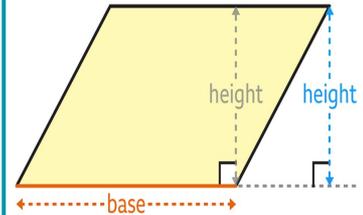
## Compound interest

$$A = P(1 + r)^t$$

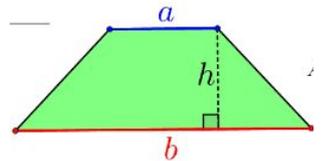
# Area Formulae

## Parallelogram

b x h (perpendicular)

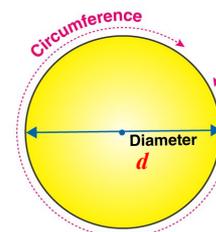
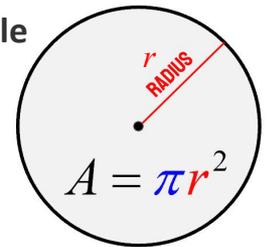


## Trapezium



$$\frac{1}{2} (a + b) \times h$$

## Circle



Circumference of a Circle

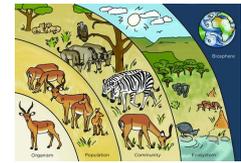
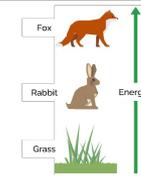
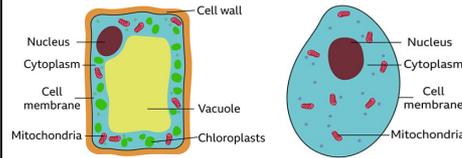
$$C = \pi d$$

## BIG QUESTIONS:

1. How do plants produce food?
2. How does the body transfer energy from food?
3. How do organisms interact within an ecosystem?
4. What happens to organisms if the ecosystem changes?

# Redmoor Science Department

## Biology – Bioenergetics & interdependence



### 1. How do plants produce food?

Photosynthesis	A chemical process whereby plants make food by absorbing sunlight. Carbon dioxide + Water $\square$ Glucose + Oxygen
Chloroplast	Cell organelle that contains the green pigment chlorophyll which absorbs sunlight for photosynthesis.
Leaf	Plant organ adapted to carry out photosynthesis.
Stomata	Tiny holes on the underside of leaves that open and close to control water loss. Gases diffuse into and out of the plant through them.
Palisade cell	Plant cell adapted to carry out photosynthesis. It contains many chloroplasts.
Plant mineral	Chemical elements and compounds needed for plant growth.

### 2. How does the body transfer energy from food?

Energy	The ability to work or produce a change.
Aerobic respiration	A chemical process whereby oxygen and glucose are reacted to release energy. Glucose + Oxygen $\square$ Carbon dioxide + Water
Anaerobic respiration	A chemical process whereby glucose is broken down without oxygen to release a small amount of energy. In animals: Glucose $\square$ Lactic Acid Fermentation: Glucose $\square$ Ethanol + Carbon dioxide
Lactic acid	Substance formed from anaerobic respiration that causes muscle fatigue, muscle cramps and pain.
Oxygen debt	The amount of oxygen required by the body for recovery after vigorous exercise.

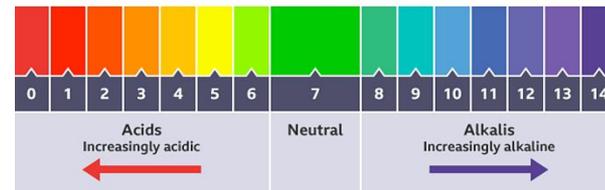


### 3. How do organisms interact with an ecosystem?

Ecology	The study of living organisms and the places they live.
Ecosystem	A community and the habitat in which the organisms live.
Community	All the organisms that live in a habitat.
Habitat	A place where organisms live.
Population	All the members of a single species that live within a geographical area.
Producer	Plants that begin food chains by making food.
Primary consumer	Eat producers.
Secondary consumer	Eat primary consumers.
Tertiary consumer	Eat secondary consumers.
Food chain	A sequence of feeding relationships between organisms.

### 4. What happens to organisms if the ecosystem changes?

Prey	Organisms that predators kill for food.
Predator	Organisms that kill prey for food.
Interdependence	All organisms in an ecosystem depend on each other for survival.
Bioaccumulation	Toxic materials build up in a food chain and damage the organisms in it.
Adaptations	A characteristic that helps an organism to survive in its environment.
Predator-Prey Cycle	A graph showing the natural rise and fall of numbers of predators and prey in a habitat.
Pesticides	Chemicals used to kill pests.



Reactants → Products

### BIG QUESTIONS:

1. What are chemical reactions?
2. What are the patterns in chemical reactions of acids?
3. How do acids, alkalis and bases behave?
4. Why do chemical reactions transfer energy?

### 1. What are chemical reactions?

Chemical reaction	A process where the atoms of substances are rearranged to make a different substance.
Word equation	An equation in which only the names of the reactants and products are used to model a reaction.
Reactants	Substance(s) present at the start of a chemical reaction.
Products	Substance(s) formed from a chemical reaction.
Combustion	The process of burning by heat.
Thermal decomposition	Type of reaction in which a compound breaks down to form two or more substances when it is heated.
Oxidation	The gain of oxygen, or loss of electrons, by a substance during a chemical reaction.
Displacement reaction	Reaction where a less reactive element is displaced from its compound by a more reactive element.
Rusting	A process in which iron and steel react with water and oxygen to produce hydrated iron oxide.

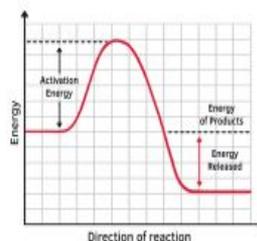
### 2. What are the patterns in chemical reactions of acids?

Acid	Substance which has a pH below 7. Have a high concentration of hydrogen ions (H ⁺ ).
Base	A substance which has a pH above 7. React with acids to neutralise it and produce a salt.
Alkali	A base that is soluble in water.
Corrosive	Able to damage metal, stonework, clothes and skin. Strong acids and alkalis are corrosive.
Neutralisation reaction	Reaction between an acid and an alkali that produces a substance with a neutral pH. A salt and water are also formed.
Salt	Substance produced by the reaction between an acid and a base.

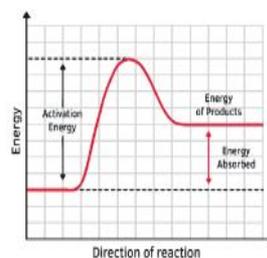
### 3. How do acids, alkalis and bases behave?

Indicator	A substance that has different colours, depending upon the pH of the solution it is in.
Neutral substance	Substance with a pH of 7.
Litmus paper	An indicator that can be red or blue. Red litmus turns blue in alkalis, while blue litmus turns red in acids.
pH	Scale of acidity or alkalinity. A pH (power of hydrogen) value below 7 is acidic, a pH value above 7 is alkaline.
Universal indicator	An indicator solution that produces many different colour changes corresponding to different pH levels.
Catalyst	A substance that changes the rate of a chemical reaction without being changed by the reaction itself.

#### Exothermic reaction



#### Endothermic reaction



### 4. Why do chemical reactions transfer energy?

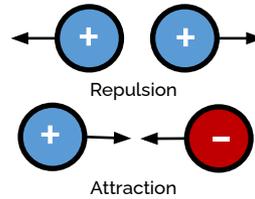
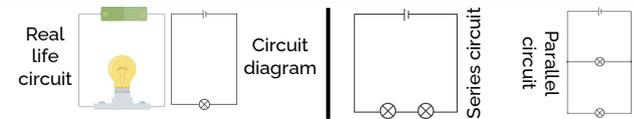
Exothermic reaction	Reaction in which energy is given out to the surroundings. The surroundings then have more energy than they started with so the temperature increases. E.g., combustion
Endothermic reaction	Reaction in which energy is taken in from the surroundings. The surroundings then have less energy than they started with so the temperature decreases. E.g., photosynthesis
Chemical bonds	The chemical link that holds molecules together.
Energy level diagram	Chart showing the energy in the reactants and products and the difference in energy between them.

## BIG QUESTIONS:

- How do objects become charged and how do they interact with each other?
- How would you design a series circuit and a parallel circuit to measure potential difference, resistance and current?
- How do magnets behave and why is this important for navigating the Earth?
- How can the strength of an electromagnetic field be changed?

## Redmoor Science Department

### Physics – Electricity & Magnetism

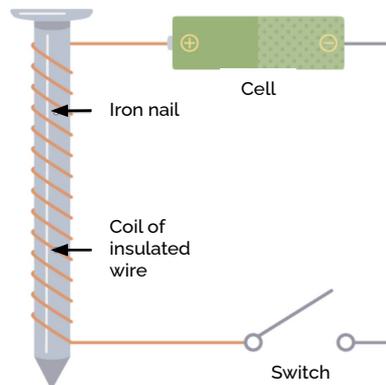


## 1. How do objects become charged and how do they interact with each other?

Atom	The smallest part of an element that can exist.
Electron	Subatomic particle with a negative charge.
Charge	Property of matter that causes a force when near another charged object. Charge can be positive or negative.
Attraction	When two or more charged objects are brought together due to having different charges.
Repulsion	When two or more charged objects are pushed away from each other due to having the same charge.
Electric field	Area surrounding an electric charge that may influence other charged objects.
Non-contact force	Force exerted between two objects that do not need to be touching.
Insulator	A material that does not let electrical charge or thermal energy to be transferred through it easily. E.g. rubber
Static electricity	Electric charge that builds up on an insulated object.

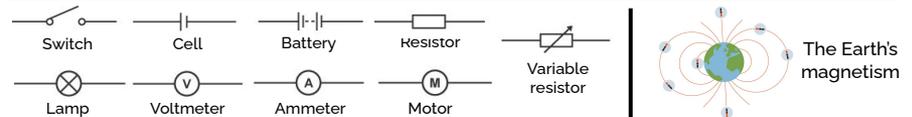
## 4. How can the strength of an electromagnetic field be changed?

Electromagnet	A magnet made by wrapping a coil of wire around a magnetic material (usually iron) and passing an electric current through the coil.
Direct current	Current in a circuit that flows in one direction around the wires.
Motor effect	The effect where a force is exerted on a wire carrying a current in a magnetic field.



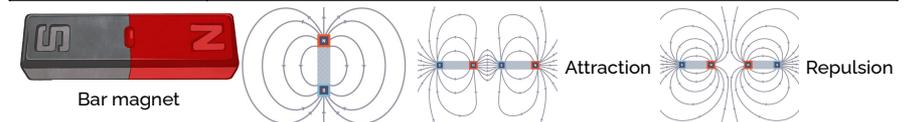
## 2. How would you design a series circuit and a parallel circuit to measure potential difference, resistance and current?

Circuit symbol	Diagram used to represent an electrical component in a circuit diagram.
Circuit diagram	A diagram that represents an electrical circuit using straight lines and symbols.
Conductor	A material that allows electrical charge and thermal energy to be transferred through it easily. E.g. metal.
Electric current	The movement of electrons moving through the wires in a circuit. Measured in amperes (A).
Series	Components are connected to a circuit in the same branch. There is only one loop in the circuit.
Parallel	Components are connected in more than one branch. There is more than one loop in the circuit.
Potential difference	Also known as voltage. The difference in energy between two points in a circuit. This difference causes electric current to flow between them. Measured in volts (V).
Resistance	Anything that opposes the flow of electrical current in a circuit. Measured in Ohms ( $\Omega$ ).



## 3. How do magnets behave and why is this important for navigating the Earth?

Magnetic	Able to be magnetised or is attracted to a magnet.
Magnetic field	Area surrounding a magnet that can exert a force on magnetic objects.
North pole	The end of a magnet that is attracted to the Earth's magnetic north pole.
South pole	The end of a magnet that is attracted to the Earth's magnetic south pole.
Permanent magnet	Magnet made from a magnetic material. Its magnetism cannot be turned off and it is always magnetised.
Plotting compass	Small magnetic compass used to detect magnetic fields.



# French

**Tu aimes quelles matières?** What subjects do you like?

Phonics (1)	Opinion phrase (2)	School Subject (3)			Quality Vocab (4)	Reason (5)	
<p><b>e</b> [uh]  <b>é</b> [ay]  <b>è</b> [eh]  <b>ç</b> [ss]  <b>an</b> [on]  <b>th</b> [t]  <b>in</b> [an]  <b>ui</b> [we]  <b>ai</b> [ay]  <b>qu</b> [kuh]  <b>tion</b>                      [see-on]  <b>oi</b> [wa]</p>	<p><b>Ma</b> matière préférée est                      (My favourite subject is)  <b>Mes</b> matières préférées                      sont                      (My favourite subjects are)  <b>J'adore</b>                      (I love)  <b>J'aime bien</b>                      (I really like)  <b>Je préfère</b>                      (I prefer)  <b>Je n'aime pas</b>                      (I don't like)  <b>Je déteste</b>                      (I hate)  <b>Je ne supporte pas</b>                      (I can't stand)</p>	<p><b>l'</b>anglais                      (English)  <b>le</b> français                      (French)  <b>les</b> sciences                      (Science)  <b>les</b> maths                      (Maths)  <b>les</b> travaux                      manuels                      (Design Tech)  <b>l'</b>espagnol                      (Spanish)  <b>le</b> théâtre                      (Drama)</p>	<p><b>le</b> dessin                      (Art)  <b>l'</b>EPS                      (PE)  <b>la</b> religion                      (ME)  <b>la</b> cuisine                      (Cooking)  <b>l'</b>informatique                      (Computing)  <b>l'</b>histoire                      (History)  <b>la</b> géo                      (Geography)</p>	<p><b>car</b>                      (because)   <b>parce</b>  <b>que</b>                      (because)   <b>puisque</b>                      (as)</p>	<p><b>pour moi</b>                      (for me)  <b>je pense que</b>                      (I think that)  <b>j'estime que</b>                      (I reckon that)  <b>la plupart du</b>  <b>temps</b>                      (most of the time)  <b>je suis l'opinion</b>  <b>que</b>                      (in my opinion)  <b>je dirais que</b>                      (I would say that)  <b>heureusement</b>                      (fortunately)  <b>malheureusement</b>                      (unfortunately)</p>	<p><b>c'est</b>                      (it is)  <b>ce n'est pas</b>                      (it isn't)  <b>ça peut-être</b>                      (it can be)</p>	<p><b>important</b> (important)  <b>utile</b> (useful)  <b>inutile</b> (useless)  <b>difficile</b> (difficult)  <b>facile</b> (easy)  <b>barbant</b> (boring)  <b>une perte de temps/énergie</b>                      (a waste of time/energy)</p>
						<p><b>J'aime le prof</b> (I like the teacher)  <b>Je déteste le prof</b> (I hate the teacher)  <b>il y a trop de devoirs</b>                      (there's too much homework)  <b>ce n'est pas mon tasse de thé</b>                      (it's not my cup of tea)  <b>le prof explique bien</b> (the teacher explains well)</p>	

**Décris ton horaire du temps** Describe your timetable

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

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

# History

Economic Study: 1500 - Modern Day

**Social:**  
relating to society or the people

**Political:**  
relating to the government / ruling elite

**Economic:**  
relating to money or the wealth of a country

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

## 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
- Labour:** work or workers
- Trade:** the action of buying and selling goods
- 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
- 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

## 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
- 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
- Rural:** countryside areas/settlements
- Urban:** town or city areas/settlements
- 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

## 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 produced of spices and of materials that were traded for money across the Empire



# Year 8 Geography - Rivers K0

## 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

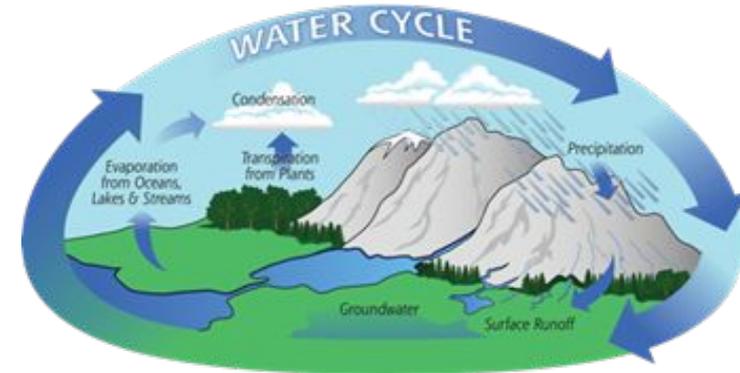
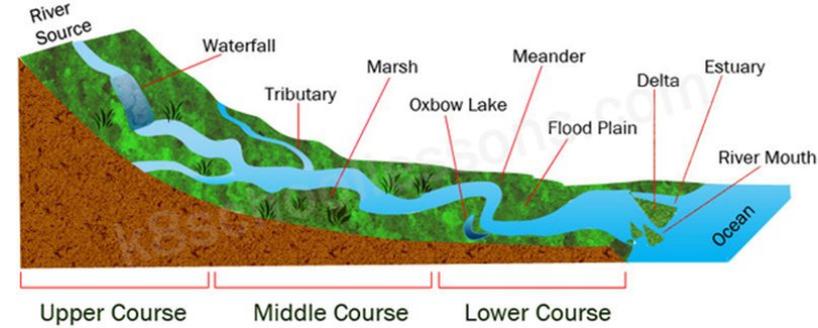
**Meanders** – bends in the river that are made more extreme as water flows more forcefully around the outside bend, eroding the riverbank further there and leading to deposition around the inside bend.

**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

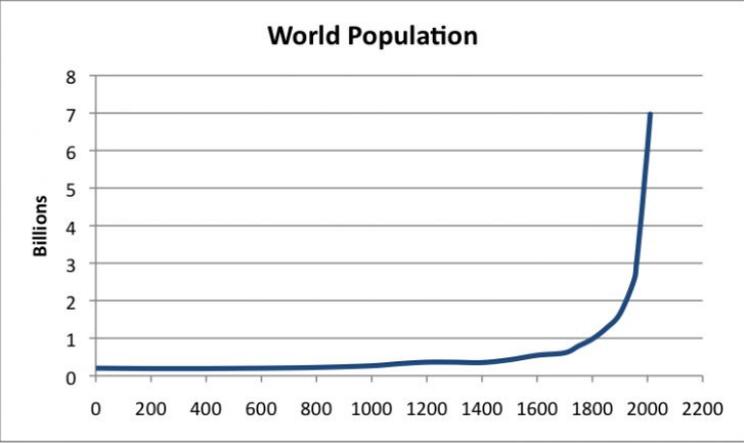
- the amount of water is reduced

- 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



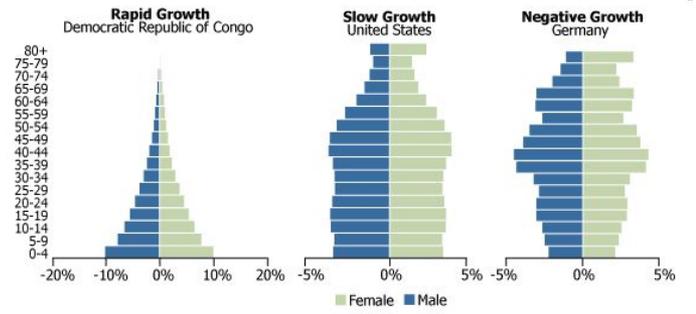
You need to be able to explain what has happened to World Population over time. Study the graph above and make some notes.

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 in to 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.

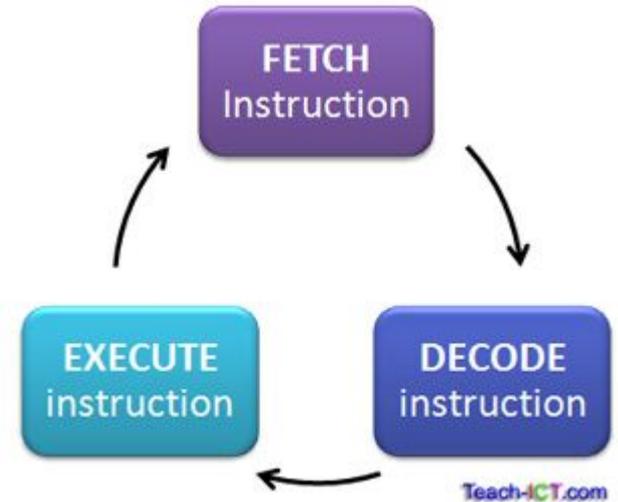


Population pyramids show the makeup of a country in terms of age and gender. Look at the following website and make comparisons between the population pyramids of poor and rich countries. <https://www.populationpyramid.net/world>

# Year 8 Computing

## Computer Hardware

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.

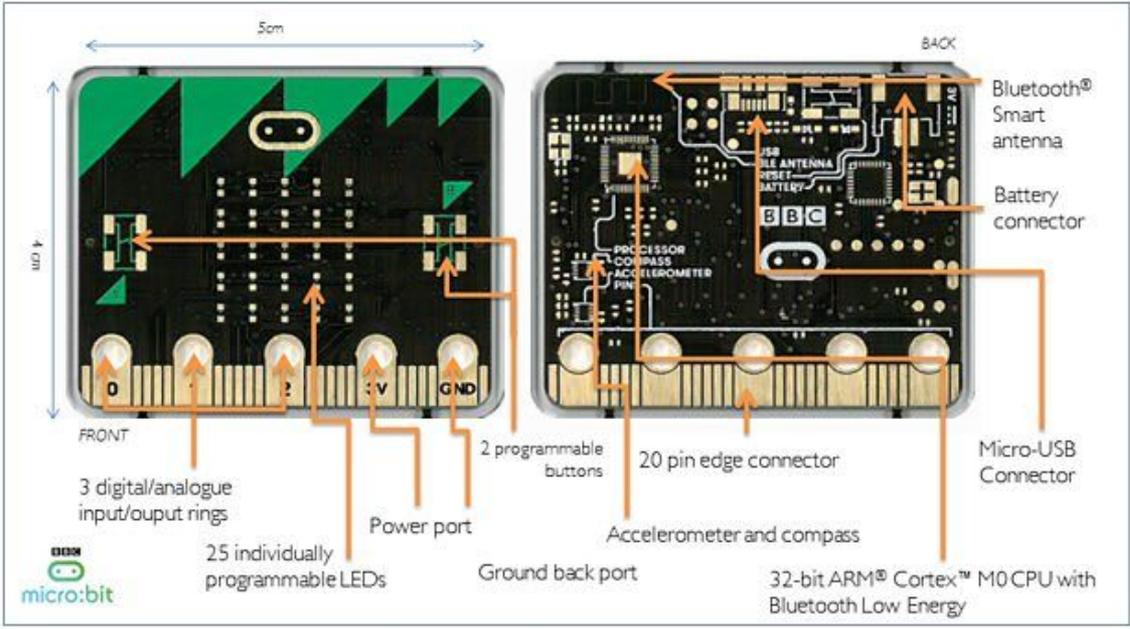


Different Types of Storage	
Optical	A type of storage that uses a laser to make marks on a disk to store data permanently. These marks can be read by a laser to put data back into a computer.
Magnetic	A type of storage that uses magnetism to magnetise parts of a disk to store data.
Solid State	A type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

Types of Software	
Applications	The programs on the computer that do something useful for you as a human being.
Utilities	The programs on your computer that are responsible for how the computer runs and is maintained.
Operating System	The software that manages and runs all of the hardware on your computer.

# 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	Also called a decision, when a program takes a course of action based on an answer. <pre>IF ELIF ELSE if answer == 0:     print("Even") else:     print("Odd")</pre>
Loops	When one or more lines of code are repeated. <pre>While For for i in range(11):     print ("The count is: " + str(i))</pre>

# 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.



## How is graffiti created?

**Typography** is the art of designing and arranging letters. It started as a craft in the 15th century with the invention of the printing press and has gradually evolved into an art form in its own right with modern digital technologies offering more creative possibilities.

The term '**Font**' was originally used to identify the design elements in a typeface e.g. **bold**, underlined, or *italic*. Bold type can add an emphasis or strength to a font. Underlined type is an effective way of emphasizing the title of a document. It can also be used to call attention to an important section of text. *Italic* type can also emphasise an important word or passage of text

Serifs are the extended corners at the ends of a letter and like all good design, they evolved naturally. They originated in the stone-carved letters of the Ancient Romans.

Serif fonts are the most legible and are commonly used for large blocks of text. Their wide horizontal baseline emphasizes the line of text for the eye and makes reading more comfortable.

Sans-serif fonts are simply fonts without serifs ('sans' means 'without' in French). They are also sometimes called Gothic



## 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.

# Year 8 Art - Surrealism

## What is the point of Abstract Art?

The main purpose of abstraction in art is not to tell a story, but to encourage imagination. Abstract art has been around for well over 100 years. Some might even assert that abstraction started with the cave paintings of thousands of years ago.

Abstraction can be traced to **Impressionism, Post-Impressionism** and **Cubism**. It was completely **radical** for its day. Artists began to create simplified objections with little or no reference to the "real" world.

The first artist to create abstract art as we know it will always remain a mystery but Wassily Kandinsky is often credited by historians as he created paintings of floating, **non representational** forms as early as 1912. His work brought abstraction to America during the Armory Show in 1913.

Abstract art now lives in the art world in many forms. It is two- and three-dimensional. It can be vast or small. Abstract art can also be made with many materials and on many surfaces. It can be used in concert with **representational** art or completely abstract. Artists creating it often focus on other visual qualities like colour, form, texture, scale and pattern. The continuing interest in abstract art lies in its ability to inspire our curiosity about the reaches of our imagination and the potential for us to create something completely unique in the world.

## Art Style



## What is the artist's role in society?

Every artist plays a different and necessary part in contributing to the overall health, development, and well-being of our society. Creative thinkers and makers provide their communities with joy, interaction, and inspiration, but they also give thoughtful critique to our political, economic and social systems

An illustrator is an artist who creates two-dimensional images for various companies and industries, such as fashion design, children's books, magazines, web sites, technical designs, and advertising. Illustration is an amazing communication tool. Words can explain something to you, but an illustration can show you something — "a picture is worth a thousand words".

An illustrator is usually hired or **commissioned**. There are various stages in an illustrator's work flow that usually include:

- Discussing the client's illustration and design needs
- Negotiating price and deadlines
- Developing a sample to go over with the client
- Producing the illustrations by the deadline

An illustrator will usually begin by sketching out a **draft** of the images they want to make. Once they have an idea of the quantity and the general outline of the whole project, they begin working on drawing each illustration. Illustrators can work from pencil and paper, or digitally on the computer. They can choose the **medium** that works best for their style and their client's needs. Every illustrator has excellent drawing skills so that they can produce all kinds of images and designs.

## Why is Surrealism the Art of Dreams?

Surrealism began as a philosophical movement that said the way to find truth in the world was through the **subconscious** mind and dreams, rather than through logical thought. The movement included many artists, poets, and writers who expressed their theories in their work. The movement began in the mid-1920s in France and was born out of an earlier movement called Dadaism from Switzerland. It reached its peak in the 1930s. The artwork often made little sense as it was usually trying to depict a dream or random thoughts. As the Surrealism movement evolved, artists developed new systems and techniques for exploring the irrational world of the subconscious mind. Two trends emerged:

### Biomorphic (or, abstract)

Derived from the Greek words bios (life) and morphe (form), the term refers to abstract forms or images that evoke naturally occurring forms such as plants, organisms, and body parts.



### Figurative

Art which represents the human figure, or even an animal figure, it is visual imagery from the subconscious mind and is used with no intention of making the artwork logically comprehensible.



It is important for the illustrator to listen and understand the client's needs, and be able to exchange ideas and rework multiple **concepts** until both parties come to a final interpretation and illustration. Natural talent, education, and continuous practice is necessary in order to become successful as an illustrator.

# Year 8 Design - Memphis Design

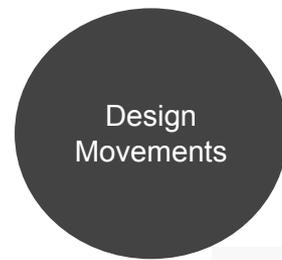
## Do design movements still have an influence today?

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.



## 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.



# Year 8 Design - Material Exploration

## Should designers consider sustainable solutions?

Sustainable design seeks to reduce negative impacts on the environment. The basic objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments.

In addition to including green spaces, examples include:

- Minimizing Non-Renewable Energy Consumption
- Using as many recycled products as possible. Using Environmentally Preferable Products - Examples include materials manufactured from recycled products and from local sources.

Good design not only makes products easier, more comfortable and safer to use, it also involves decisions about the materials from which they are made and, often, their projected life-span – key factors in how these products will affect our environment.

*'Sustainable design means pieces made from responsible materials, but that have also been built to last a lifetime.'*

## Why do designers look at other designers work, isn't this copying?

- If all we ever view is unsuccessful design, there is a good chance that unsuccessful design is what we'll regurgitate!
- By looking at the work of other new or past designers or artists, we are able to gain inspiration meaning we can use their ideas in our own designs.
- If we are good at what we do we will problem solve and create new solutions from this inspiration and take it a step further in order to make it our own, making it a new and fresh perspective.
- It is important for us as designers to constantly seek and absorb good design, different perspectives and design around us so we create relevant ideas.



## What's the point in experimenting?

Understanding the **properties** of different materials and how they might be used can help you make effective choices in art and design work.

Experimenting is to try something in order to discover what it is like or find out more about it. Things would never change if people weren't prepared to experiment.

Fearless experimentation involves taking risks and inevitably experiencing failure as well as success.

Be open-minded when experimenting. Don't be afraid to try things. Even if something is unsuccessful, you will have shown that you have tried and learned valuable lessons.

Choice of materials and **technique** will affect the style of your work. Try different materials to find out which you enjoy working with, and which produce effects you are interested in.

Your experiments with materials and techniques could relate to the final product, structure or space you are designing.

They could also be about how you will present, using models, maquettes or drawings. Depending on the design area, different materials and techniques may be appropriate.



# Drama Keywords

<b>Tableau(x)</b>	A dramatic picture, frozen in time with two or more people.
<b>Levels</b>	Gives a stage more visual interest. They allow different characters the opportunity to communicate different status, locations or the audience to see areas more clearly.
<b>Status</b>	The power difference between two or more characters.
<b>Expression</b>	Use of facial expressions to show how you feel.
<b>Ad Lib</b>	Improvisation by an actor - speaking outside the lines of a script.
<b>Projection</b>	To speak loudly for the audience to hear your words.
<b>Tone of Voice</b>	The emotion heard in your voice of this character.
<b>Gesture</b>	Body or facial movements of a character during a play.
<b>Body Language</b>	To show your emotion towards others or a situation in your body.

Drama techniques, skills and lighting.

## Year 8 Drama: Knowledge Organiser Unit 1: WW1 and The Trenches

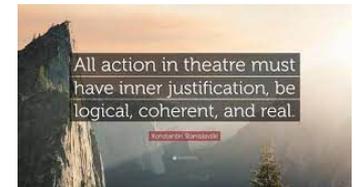
### Context:



- We will look at the conditions of the trenches in WW1 (1914-1918) and try to empathise with the soldiers living in them.
- We will be using **Tableaux**, **Thought-Tracking**, **Movement** and **Soundscape** to create *atmosphere* and *mood*.
- We will look at a scripted piece based on what happens to an under aged soldier who runs away from the trenches.
- We will use **tone of voice**, **body language**, **facial expression** and other skills to portray characters from the script.
- Throughout the topic we will introduce the techniques of theatre practitioner *Stanislavski* and his technique of 'What if?' to create a realistic piece - 'What if I was this soldier, how would I feel fighting for my country? Leaving my family behind & not knowing when I would see them again?'.

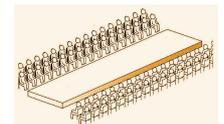
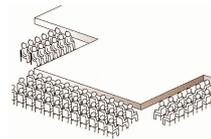
### Practitioners:

*Stanislavski* - According to Stanislavski, an actor only portrays a character truthfully if he actually experiences the feelings specific to a scene. Therefore you have to use empathy to create your character and scene.



### Performance Spaces:

*Traverse* - Form of staging where the Audience is on either side of the acting area.



*Thrust* - The stage projects into the auditorium so that the audience is seated on at least two sides of the extended piece.

# Drama Keywords

<b>Thought Tracking</b>	Thoughts of a character are heard out loud, usually in a tableau. 'Tracking their thoughts' in the moment.
<b>Dialogue</b>	The spoken text of a play - conversations between characters - is dialogue.
<b>Monologue</b>	Speech delivered by a single actor alone on stage.
<b>Hot seating</b>	'Hot seated' actor answers questions about their feelings, thoughts, actions as the character. Like an interview.
<b>Projection</b>	The strength of your voice to be used loudly and clearly.
<b>Tone of voice</b>	The emotion HEARD in your voice of this character.
<b>Physicality</b>	The physical mannerisms of a person, especially when overdeveloped or exaggerated.
<b>Spotlight</b>	A 'Spot'/Circle of Light in a small area- to focus on less actors.
<b>Backlight</b>	Light coming from upstage, behind the scenery or actors, to sculpt and separate them from the background.

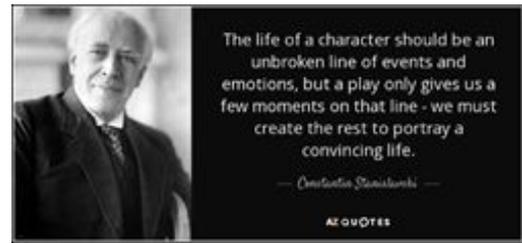
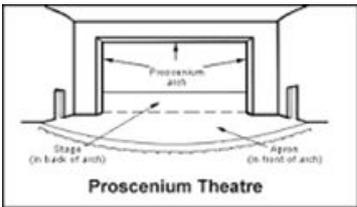
## Year 8 Drama: Knowledge Organiser Unit 2: Devising - Creating Characters

### Context:

- We will be looking at **Stock Characters** and creating our own character using different skills and techniques.
- You will be **hot seating** your character to get to know them better and
- You will be writing a **monologue** for your character.
- We will start to add these characters into a scenario where they will **interact** with different characters, creating **dialogue**.
- **Devising** a scene with different skills and thinking about how your character will **react** and **interact** with others and to situations.
- You will **design** a **costume** for your character which will tell the audience further information about their traits.

### Use of Practitioners, Performance Spaces:

**Performance Space:** *Proscenium Arch* - An arch/frame is created & the Audience have one view point.



**Practitioner:** *Stanislavski* - He wanted people to experiment to create a character. He believed that you should use everyday language to create a natural/ realistic play, using real settings and 'ordinary' people.

## Musical knowledge - World Music

### Definitions

1. **Gamelan** – Traditional music from Indonesia
2. **Musical cycle** – A repeated musical phrase often longer than a bar of music.
3. **Scale** – A set of pitches used to write melodies.
4. **Interlocking melody** – Two or more melodies played at the same time that sound like one melody
5. **Drone** – A continual note
6. **Raga** – A scale used for different moods and emotions
7. **Texture** – Describes how melodies, rhythms and harmonies are layered in music

### Layers of sound

**Melody = tune. One note at a time.** Can be sung or played on an instrument.

1. **Melody**



See opposite

2. **Chords**



**Bass line = the lowest part. One note at a time.**

3. **A bass line**



4.

**A beat**



**Beat = rhythm.** Played on unpitched instruments such as **drums**.

### Performing in an Ensemble

- Always count the group in at the correct **tempo**.
- Always count out loud to start with to keep everyone in **time**.
- Discuss the **structure** of the music.

### Texture

#### THICK TEXTURE

If there are many layers of melodies, rhythms or harmonies playing at once it is called a thick texture.

#### THIN TEXTURE

If there are only a few layers of melodies, rhythms or harmonies playing at once it is called a thin texture.

#### MUSICAL TEXTURES



#### MONOPHONIC

Contains one melody with no harmonies, although there may be a rhythmic accompaniment.



#### POLYPHONIC

Contains two or more melodies playing at the same time.

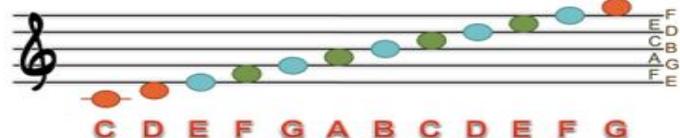


#### HOMOPHONIC

Where there is more than one independent melody playing at the same time.

### How to read pitches

1. The blobs of the notes are arranged on the lines and spaces of the staff. The higher the blob on the staff, the higher the pitch.



2. Notes alternate being on a line and in a space.
3. Notes higher or lower than the staff have their own little line called a **ledger line**, like middle C shown above.
4. You can remember the notes on the **lines** with '**Every Good Boy Deserves Football**', and the notes in the **spaces** spell '**FACE**'. Remember to go **upwards** when doing this!

# YEAR 8 PE - FITNESS

## COMPONENTS OF FITNESS

**Cardiovascular Fitness** – 12 Minute Cooper Run, Bleep Test

**Agility** – Illinois Agility Test

**Speed** – 30 Meter Sprint

**Strength** – Hand Grip Test

**Power** – Vertical Jump, Standing Broad Jump

**Coordination** – Alternate Hand Wall Throw Test

**Muscular Endurance** - 1 Minute Press Up Test, 1 Minute Sit Up Test

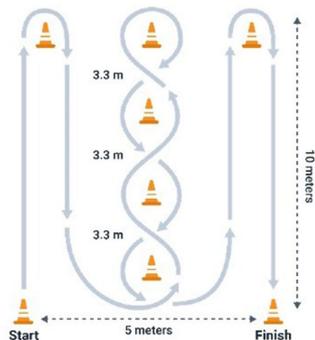
**Balance** - Standing Stork Test

**Flexibility** - Sit and Reach Test

**Body Composition** - BMI

**Reaction time** - Ruler Drop Test

### Illinois Agility Test



- **Normative Data** - Performance is judged on how well a task is executed against the population.

- **BrianMac** - <https://www.brianmac.co.uk>

Example of 12min Cooper Test normative data



Male

Age	Excellent	Above Average	Average	Below Average	Poor
13-14	>2700m	2400-2700m	2200-2399m	2100-2199m	<2100m
15-16	>2800m	2500-2800m	2300-2499m	2200-2299m	<2200m
17-19	>3000m	2700-3000m	2500-2699m	2300-2499m	<2300m
20-29	>2800m	2400-2800m	2200-2399m	1600-2199m	<1600m
30-39	>2700m	2300-2700m	1900-2299m	1500-1999m	<1500m
40-49	>2500m	2100-2500m	1700-2099m	1400-1699m	<1400m
>50	>2400m	2000-2400m	1600-1999m	1300-1599m	<1300m



Female

Age	Excellent	Above Average	Average	Below Average	Poor
13-14	>2000m	1900-2000m	1600-1899m	1500-1599m	<1500m
15-16	>2100m	2000-2100m	1700-1999m	1600-1699m	<1600m
17-20	>2300m	2100-2300m	1800-2099m	1700-1799m	<1700m
20-29	>2700m	2200-2700m	1800-2199m	1500-1799m	<1500m
30-39	>2500m	2000-2500m	1700-1999m	1400-1699m	<1400m
40-49	>2300m	1900-2300m	1500-1899m	1200-1499m	<1200m
>50	>2200m	1700-2200m	1400-1699m	1100-1399m	<1100m

## METHODS OF TRAINING

**Continuous** – working with no rest over a long period of time

**Interval**– periods of high intensity work and rest

**Resistance** – uses free weights or machine to improve strength and power

**Circuit** – a series of stations to improve specific components of fitness

**Fartlek** – ‘speed play’. Continuous running of a variety of intensities and terrains.

**Plyometric** – explosive movements to improve power