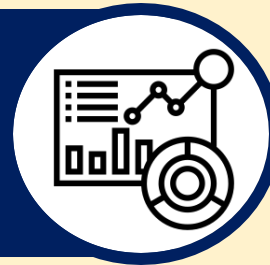




Knowledge Organisers



Term 1 and 2
Year 8

Contents



How to revise



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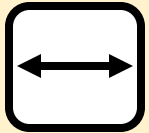
How to revise

Successful Learning Takes Place Over Time

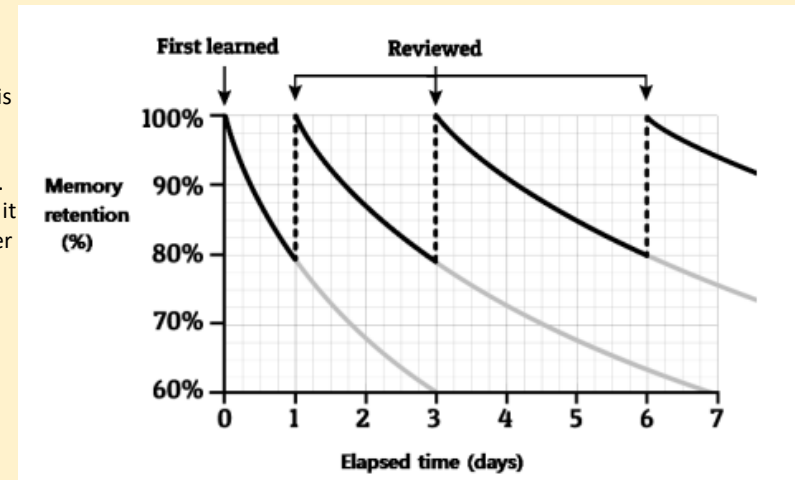


It's rare for anyone to be completely comfortable with something they learn for the first time. This could be a new piece of music, dance move, language or chemistry. We all have to practice. In most instances, the aim is to be at your optimum on the day it matters, e.g. the performance, race or exam. Everything leading up to this point is part of the process of improving. It's about the long-term rather than the short-term, which also means there are no quick fixes. During this period, it's okay to make mistakes; it's okay to feel frustrated. What matters is what you do about it.

Space out your learning on a subject



Spacing out your learning over time is far more effective than last-minute cramming. This is based on research into how we forget and how we remember. The speed at which we forget something will depend on many factors such as the difficulty of the material, how meaningful it was to us, how we learned it and how frequently we relearn or remember it. The last factor tells us that when we learn something for the first time, we need to review it quickly afterwards. The more times we force ourselves to remember something, the longer the gap between reviews, which the diagram below illustrates nicely. The Leitner system and Cornell Notes mentioned earlier provides a wonderful way of achieving this, but the principle applies to all of the learning strategies mentioned in this booklet



Revision strategies

List It



This is a simple free recall task that is very versatile. It can feel challenging, but this is a good thing, and it provides clear feedback on what you do and don't know. Choose a topic, set yourself a time limit and...

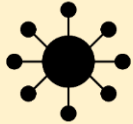
- List as many keywords as you can
- List as many facts as you can
- List as many key events/quotes/individuals as you can
- List as many causes of X as you can
- List as many consequences of Y as you can

Flashcards



Flashcards have the potential to be a powerful learning aid. However, how successful this is will depend on the thought you put into making them in the first place and then how they're used. It's very important to remember that they're for testing, not summarising

Mapping



Mapping is a brilliant way of organising and learning information, demonstrated on various pages in this booklet. It helps you break down complex information, memorise it, and see the connections between different ideas.

Self-testing



Research has shown that every time you bring a memory to mind, you strengthen it. And the more challenging you make this retrieval, the greater the benefit. Self-testing improves the recall of information, transfer of knowledge and making inferences between information. Equally, there are many indirect effects, such as a greater appreciation of what you do and don't know, which helps you plan your next steps.

Flashcards



Flashcards are small sheets of paper or card with matching pieces of information on either side. They are a useful tool for learning facts and allow you to quickly check whether you have remembered something correctly.

When making and using flashcards:

Do:	Don't:
✓ ...make flashcards quickly.	X ...spend more time making flashcards than actually using them.
✓ ...put a single piece of information of each flashcard.	X ...put lots of information onto each flashcard.
✓ ...sort your flashcards according to your confidence with them (see below).	X ...revise the flashcards in the same order every time that you use them.
✓ ...test yourself on the flashcards from memory.	X ...only read through flashcards.

How to make flashcards:

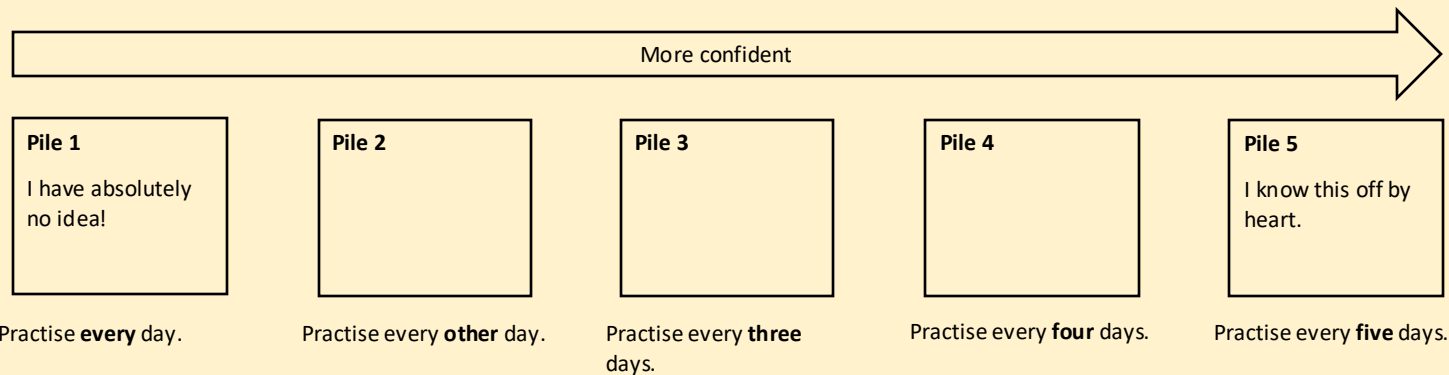
- You can by a set of flashcards or use a free website such as Quizlet.
- Find the information you want to put onto flashcards using your existing revision resources (e.g. a knowledge organiser).
- Fold a piece of A4 paper into 10.
- Write the questions on the top half of the paper.
- Write the answers on the bottom half of the paper.
- Cut the paper along the dotted lines shown here.
- Fold the strips of paper so that the writing is on either side.

1861	groynes	osmosis	Where is the pharmacy?
Pasteur published his paper about germ theory.	A low wall on the coastline which slows longshore drift	Net movement of water from a high concentration to low concentration across a partially permeable membrane	Où est la pharmacie?

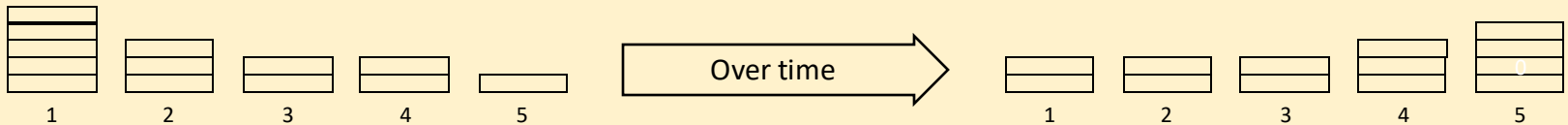
Definition 1	Definition 2	Definition 3	Definition 4	Definition 5
Answer 1	Answer 2	Answer 3	Answer 4	Answer 5

How to use flashcards:

1. Test yourself using the flashcards.
2. As you test yourself, sort the flashcards into up to five piles according to how confident you are with the content.
3. Put the piles into numbered envelopes (1-5).
4. Test yourself on the different piles on different days (see below):



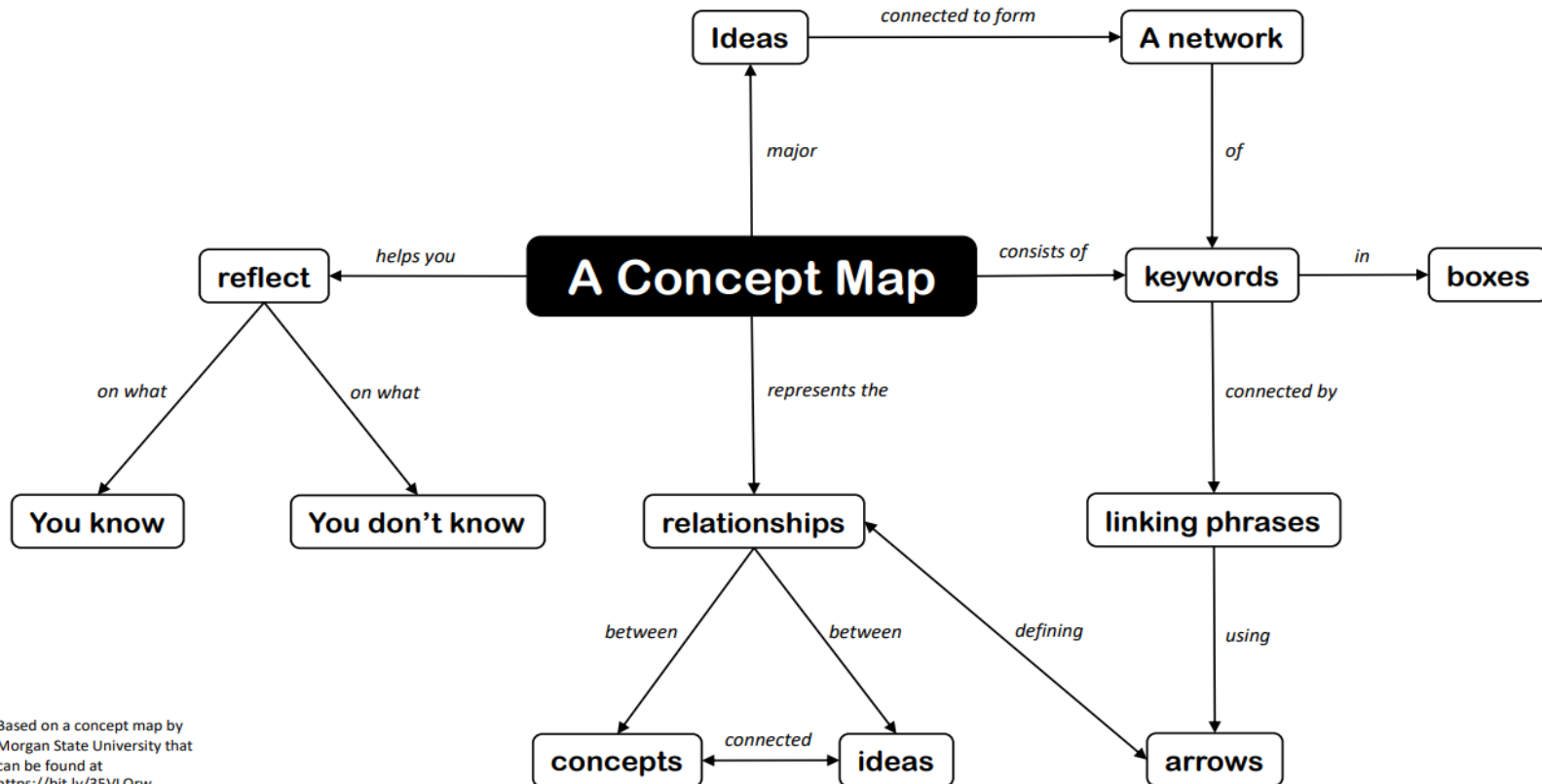
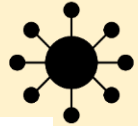
5. As you test yourself on the different piles, move the cards into different piles as you become more confident.



Useful resources:

www.quizlet.com – This free website allows you to quickly create flashcards which you can print, use on a computer, or use on your phone.

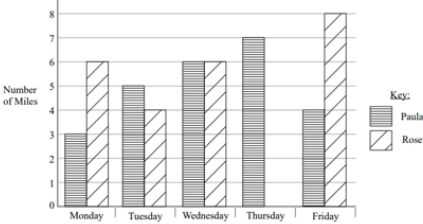
Mapping



Based on a concept map by
Morgan State University that
can be found at
<https://bit.ly/35VLQrw>



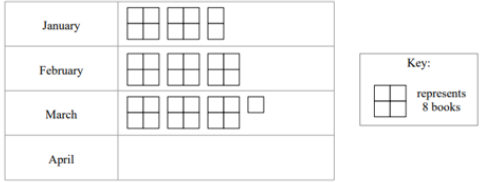
Interpreting & Comparing Data : Bar Charts

1		
2	On which day did Paula and Rose run the same distance?	Wednesday
3	What is Paula's total distance <u>ran</u> ?	$3+4+6+7=24$
4	On which day did Rose run twice as far as Paula?	Monday
5	What can go wrong with drawing a bar chart?	Plot the wrong heights Join all of the bars together with no gaps

Angles

1	An acute angle is	Between 0 and 90°
2	An obtuse angle is	Between 90 and 180°
3	A reflex angle	Between 180 and 360°
4	A right angle is	90°
5	Angle fact: Angles on a straight line sum to	180°
6	Angle fact: 	Vertically opposite angles are equal

Interpreting & Comparing Data : Pictograms

1		
2	How many books were sold in February?	$8 \times 3 = 24$
3	How many books were sold in January?	$8 \times 2 = 16$ Half of 8 = 4 $16 + 4 = 20$
4	 48 wheels were sold on Monday, Tuesday and Wednesday. Complete the key 	$48 \div 6 = 8 \text{ people}$
5	What can go wrong in pictograms?	Forget the key Use an inappropriate shape for the key that can't be easily equally divided into parts Use the wrong fraction of the shape

Interpreting & Comparing Data : Pie Charts

1	180°	$\frac{1}{2}$
	90°	$\frac{1}{4}$
	72°	$\frac{1}{5}$
	60°	$\frac{1}{6}$
	120°	$\frac{1}{3}$
	40°	$\frac{1}{9}$
	36°	$\frac{1}{10}$

2	Two work out angles in a pie chart	Find the total = 60 Scale it up to 360 ($\times 6$) Multiply all numbers by this <table><tr><th>Transport</th><th>Frequency</th><th>Angle</th></tr><tr><td>Car</td><td>27</td><td>162°</td></tr><tr><td>Bike</td><td>8</td><td>48°</td></tr><tr><td>Bus</td><td>19</td><td>114°</td></tr><tr><td>Other</td><td>6</td><td>36°</td></tr></table> 60 360 x6	Transport	Frequency	Angle	Car	27	162°	Bike	8	48°	Bus	19	114°	Other	6	36°
	Transport	Frequency	Angle														
Car	27	162°															
Bike	8	48°															
Bus	19	114°															
Other	6	36°															

Find the total = 60

Scale it up to 360 ($\times 6$)

Multiply all numbers by this

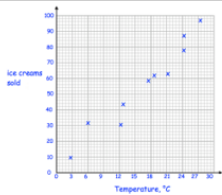
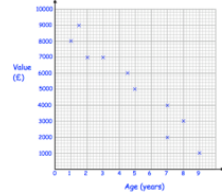
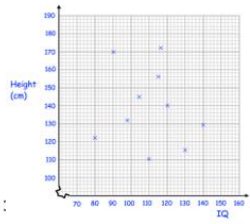
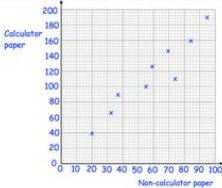
Transport	Frequency
Car	27
Bike	8
Bus	19
Other	6

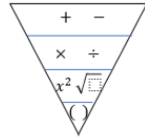
Angle
162°
48°
114°
36°

60 | 360
x6

3b	240 students are in this pie chart What calculate could you do to work out how many people chose walking? 	$\frac{\text{angle}}{360} \times \text{total}$ $\frac{30}{360} \times 240$ $\frac{1}{12} \times 240 = 20$
3c	If 15 people chose walking, how many chose cycling? 	Cycling is twice the angle of walking so twice as many people chose it $15 \times 2 = 30$
4	Rugby Team  Football Team 	We don't know how many matches each pie charts represents. Why can't you <u>tell</u> that the football team won more matches than the rugby team?

1	To find the mode you	Look for the most common						
2a	To find the median	Put in order Find the middle number						
2b	To find the position of the median	$\frac{n+1}{2}$ where n is the number of data						
2c	What is there are two middle numbers?	Add them and half it						
2d	Find the <u>median</u> 4 12 5 6 8	Order 4 5 6 8 12 Middle = $\frac{5+1}{2} = 3rd$ Median = 6						
2e	Find the median (numbers are in order) 5 6 8 12 21 39	Middle = $\frac{6+1}{2} = 3.5th$ (between 3rd and 4th) Add 8 and 12 and half it $20 \div 2 = 10$						
3a	To calculate the mean	Total $\div$ frequency Add the numbers $\div$ how many there are						
3b	Calculate the mean of <u>4 12</u> 5 6 8	$\frac{4 + 12 + 5 + 6 + 8}{6} = \frac{35}{6} = 7$						
3c	If the mean is 5 and there are 6 numbers, the total is	$6 \times 5 = 30$						
4a	To find the range	Largest - smallest						
4b	The range shows	Spread/consistency						
5	When the question says compare using averages you need to mention 1. 2.	1. median/mean showing who's taller/faster/better 2. range with comment on spread						
6	<table border="1"><thead><tr><th>Boys</th><th>Girls</th></tr></thead><tbody><tr><td>Mean = 65</td><td>Mean = 89</td></tr><tr><td>Range = 10</td><td>Range = 20</td></tr></tbody></table> Write 2 sentences to compare boys and girls test scores	Boys	Girls	Mean = 65	Mean = 89	Range = 10	Range = 20	1. The means shows that girls got higher scores on average 2. The range shows that <u>girls</u> results were more spread out
Boys	Girls							
Mean = 65	Mean = 89							
Range = 10	Range = 20							
7	The higher the range the ____ consistent the results The lower the range the ____ consistent the results	The higher the range the less consistent the results The lower the range the more consistent the results						

1a		Positive
1b	What type of correlation is shown? Write a sentence to describe the relationship above	The higher the temperature the higher the number of ice creams sold
2		Negative
2a	What type of correlation is shown? Write a sentence to describe the relationship above	The higher the age, the lower the value
3		No correlation – there is no relationship between a person's height and their IQ
4	What type of correlation is shown? To make estimations from a scatter graph you MUST draw	A straight line of best fit
5	The line of best fit does not need to pass through	(0,0)
6		7 is outside the data set We only have data from 20 marks or higher on paper 1
	Explain why it is not a good idea to use this scatter graph predict the paper 2 score of someone who scores 7 on the non-calculator paper?	

1	Solve means	Find the value of the unknown
2	We solve equations by	Isolating the unknown by eliminating and balancing
3	The answer is called	The solution
4	What are the inverse operations of + ×	– ÷
5	The order in which we choose to eliminate using inverse operations is	
6	Solve $y + 3 = 9$	$y + 3 = 9$ $-3 \quad -3$ $y = 6$
7	Solve $y - 3 = 9$	$y - 3 = 9$ $+3 \quad +3$ $y = 12$
8	Solve $3y = 9$	$3y$ means $3 \times y$ $3y = 9$ $\frac{3y}{3} = \frac{9}{3}$ (9 divided by 3) $y = 3$
9	Solve $\frac{y}{3} = 9$	$\frac{y}{3}$ mean y divided by 3 $\frac{y}{3} = 9$ $\times 3 \quad \times 3$ $y = 27$
10	Which inverse operation would you carry out to both sides first? $Solve \ 2x + 9 = 20$	Subtract 9 from both sides $Leaving \ 2x = 11$
11	Which inverse operation would you carry out to both sides first? $Solve \ 2x - 9 = 20$	Add 9 to both sides $Leaving \ 2x = 29$
12	Which inverse operation would you carry out to both sides first? $Solve \ 20 = \frac{x}{2} - 9$	Add 9 to both sides leaving $20 = \frac{x}{2}$
13	Which inverse operation would you carry out to both sides first? $Solve \ 20 = \frac{x-9}{2}$	The $x - 9$ is grouped ($x - 9$) Dividing by two needs eliminating first by $\times 2$ $Solve \ 20 = \frac{x-9}{2}$ $\times 2 \quad \times 2$ $Leaving \ 40 = x - 9$

Sequences

Solving Equations continued

14	If there are unknowns on both sides...	Eliminate the smallest unknown using inverse operations
15	What would you eliminate first and how? <i>Solve</i> $3x + 10 = x + 16$	Remove the x from both sides by $-x$ <i>Solve</i> $3x + 10 = x + 16$ $-x \quad -x$ Leaving $2x + 10 = 16$
16	What would you eliminate first and how? <i>Solve</i> $3x + 10 = 16 - x$	Remove the $-x$ from both sides by $+x$ <i>Solve</i> $3x + 10 = 16 - x$ $+x \quad +x$ Leaving $4x + 10 = 16$
17	Equations with brackets <i>Solve</i> $3(x - 4) = 18$	Expand the bracket Solve by eliminating and balancing $3x - 12 = 18$ $+12 \quad +12$ $3x = 30$ $x = 10$

1	Linear sequence (arithmetic sequence) has	A common difference (add, subtract each time)
2	Geometric sequence	Has a common ratio (multiplied each time)
3	To find the next term in a Fibonacci sequence	Add the 2 previous terms
4	Find the next term in this Fibonacci sequence 2 2 4 6 ____	2 2 4 6 <u>10</u> <u>16</u>
5	The n th term of 3 6 9 12 is	$3n$
6	The n th term of -3 -6 -9 -12 is	$-3n$
7	The n th term of <u>5</u> 8 11 14 17 is	$3n + 2$
8	The n th term of 1 4 7 10 13	$3n - 2$
9	If the n th term is $5n - 1$, the 20 th term would be	Let $n=20$ $5 \times 20 - 1 = 99$
10	What is the term to term rule for this geometric sequence <u>0.3</u> <u>3</u> 30 300	Multiply by 10
11	The first 5 triangular numbers are	
12	What would the next triangular number be?	15

The Plot

Chapter 1	The animals gather to listen to old Major. He gives them a vision of a life without man.
Chapter 2	The animals rebel and overthrow Mr Jones. The commandments are written.
Chapter 3	The animals' first harvest is a success. The pigs keep the milk and apples to themselves.
Chapter 4	The Battle of the Cowshed: Mr Jones attempts to reclaim the farm.
Chapter 5	Snowball and Napoleon debate the windmill. Napoleon uses dogs to chase Snowball from the farm. Napoleon makes himself leader.
Chapter 6	Work begins on the windmill. The pigs move into the farmhouse. Winds destroy the windmill.
Chapter 7	Work on the windmill starts again. Napoleon demands eggs from the hens. Napoleon slaughters animals at the show trials.
Chapter 8	Napoleon betrays Mr. Pilkington and sells timber to Mr. Frederick. Frederick pays with counterfeit money. Frederick attacks the farm. The animals suffer losses in the Battle of the Windmill. The windmill is destroyed.
Chapter 9	Boxer is sold to the knacker's yard.
Chapter 10	The pigs are leaders on the farm. They start walking on two legs and carrying whips. There is no difference between the pigs and the humans they sought to overthrow at the start of the novel.

Context

Context - George Orwell (the author) wrote the book as a way to criticize the events of the Russian Revolution.

The main figures of the Russian Revolution were:

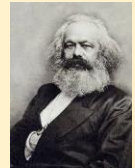
Karl Marx: Old Major represents Karl Marx. Karl Marx believed in the introduction of a system in which wealth was communal and labour was shared. He believed this would produce a fairer, more stable way of life. This formed the basis of communism.

Trotsky: Trotsky helped form the Bolshevik communist party. Snowball represents Trotsky, a passionate component of Animalism (Communism) who is expelled by Napoleon (Stalin).

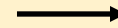
Stalin: Napoleon follows a similar rise to power as Stalin, using fear and propaganda to control the masses, including show trials and executions.

Rasputin: He was a self-proclaimed mystic and religious figure who was influential with the royal family. He is represented by Moses in the novel.

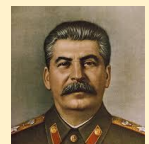
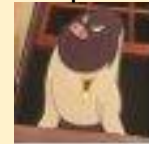
Old Major represents Karl Marx



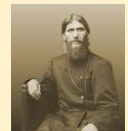
Snowball represents Trotsky



Napoleon represents Stalin



Moses represents Rasputin



The characters
Snowball


Snowball is one of the other leading pigs, who challenges Napoleon for leadership of the farm after the rebellion. He represents Leon Trotsky. He is intelligent and passionate, yet he does not resort to the same levels of cunning and manipulation as Napoleon.

Napoleon


Napoleon is the pig who emerges as the leader of Animal Farm after the rebellion. Napoleon's character is based on Joseph Stalin – the leader of the communist Soviet Union. Napoleon is cunning, treacherous, lazy and selfish. He uses Squealer (propaganda) and the dogs (military force) to exert power over others.

Squealer


Squealer represents propaganda. He is a pig who is a gifted and persuasive speaker, and is used to spread positivity about Napoleon, and negativity about Napoleon's competition. He uses false statistics to suggest that the farm thrives under Napoleon, and twists the truth to ensure that the pigs retain political and social control.

Boxer


Boxer is a cart-horse, who demonstrates incredible strength, work ethic, and loyalty. He represents those in the working classes who were hugely overworked. Boxer completes the most work on the farm, and is admired by others for his physical accomplishments and mental grit. His downfall is his slow wit, which ensures that he is unable to think for himself and is easily manipulated.

Mr Jones

Drunken owner of Animal Farm. Embodies the tyranny of man.

The dogs

Instruments of fear and control, educated by Napoleon.

Key Vocabulary

Utopia: an imagined place or state of things in which everything is perfect.

Dystopia: an imagined state or society in which there is great suffering or injustice, typically one that is totalitarian or post-apocalyptic.

Corruption: Dishonest behaviour by those who hold power. They may lie and deceive to get more power.

Propaganda: Information that is meant to make people think a certain way. The information may not be true.

Rebellion: A rebellion is a situation in which people fight against those who are in charge of them.

Communism: A type of government whose aim is to share wealth individual people do not own land, factories, or machinery. Instead, the government owns these things. Everyone is supposed to share the wealth that they create

Oppression: Cruel or unjust treatment by an authority over a less powerful group

Democracy: a system of government by the whole population where leaders are voted for and elected

Totalitarianism: a system of government that has total control over its people

Bias: leaning for or against someone or something, especially in a way considered to be unfair.

Key Vocabulary



Tyranny: cruel and oppressive government or rule.

Fake News: false stories that appear to be news, spread on the internet or other media, usually created to influence political views or as a joke

Commandments: a divine rule, a rule that should be obeyed strictly



Key Vocabulary 2

Vulnerable: a person in need of care



Oppress: keep someone in hardship



Subjugate: to bring under control



Coerce: make someone carry out your commands through persuasion



Dictatorship: a form of government where one person or small group has absolute power



Hierarchy: an order of importance within society



Key Terminology

Allegory	A story with two meanings. It has a literal meaning, which is what actually happens in the story. But it also has a deeper meaning. The deeper meaning is often a moral. It teaches you a lesson about life.
Rhetoric	the art of effective public speaking by using words and phrases for effect
Oracy	the ability to express yourself fluently and eloquently in speech

Language Features

Direct address	When you speak to the audience using pronoun 'you'
Hyperbole	Exaggerating – going over the top to make a point
Pronouns	Used persuasively to include everyone e.g. 'We stand together'

Story Structure

Exposition	the beginning of a story where the characters and setting are introduced
Trigger point	the event that triggers a problem or introduces tension
Rising action	a series of events that build tension in a story
Crisis/climax	the most dramatic part of the story
Falling action	after the tension has been released and an explanation takes place to solve a mystery/fill in the gaps
Resolution	the problem is resolved
Denouement	when the events of the story are finished

1. Forces

A force is a **push** or a **pull** that changes the **shape**, **speed** or **direction** of an object.



The unit of force is the **Newton (N)**

We measure force using a piece of equipment called a Newton metre.



2. Types of Force

Forces can be divided into two types: contact and non-contact.

1. **Contact forces** are caused when two objects are in contact.

2. **Non contact** forces happen when two objects do not need to be in contact for the force to happen.

Contact	Non-contact
Friction, Push, Pull, Air resistance, thrust, upthrust	Weight, Magnetic, gravity

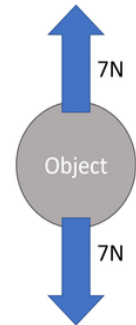
3. Balanced Forces

When we talk about the total force acting on object we call this the **resultant force**. When the forces acting in opposite directions are the same magnitude (size) we say the forces are **balanced**.

This means one of two things:

1. The object is stationary (not moving)
2. The object is moving at a constant speed

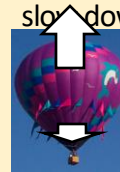
For example, the vertical resultant force acting on the object is $7\text{N} - 7\text{N} = 0\text{N}$



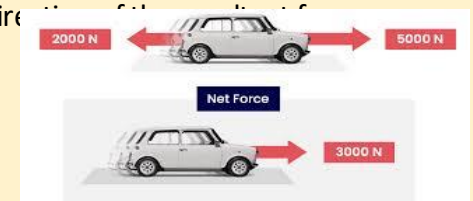
4. Unbalanced Forces

If the forces are unbalanced on an object there are two things that could happen:

1. If the object is stationary then it will move in the direction of the resultant force
1. If the object is moving, then the object will speed up or slow down in the direction of the resultant force



Hot air balloon rising



5. Speed, Distance and Time

How do you find the average speed of an object?

- 1) Measure the distance travelled
- 2) Measure the time taken to travel that distance

Average speed = distance / time

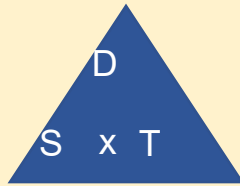
Worked example:

Q) A car travels 2 km in 100 s.

Calculate its average speed.

$$2 \text{ km} = 2000 \text{ m}$$

$$2000 \text{ m} / 100 \text{ s} = 20 \text{ m/s}$$



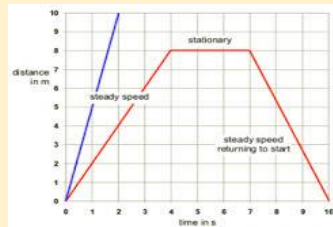
6. Distance Time Graphs

In a distance-time graph, the gradient of the line is equal to the speed of the object.

The greater the gradient (and the steeper the line) the faster the object is moving.

You can calculate the speed of an object by calculating the gradient of the line (distance travelled / time taken).

The speed of the object shown by the blue line is $10\text{m}/2\text{s} = 5\text{m/s}$.



7. Reducing forces for the better

Friction opposes the direction of motion making it more difficult to move.



This can be helpful:

- Your shoes and the floor to stop you slipping
- Tyres and the road to prevent skidding
- Brakes and the wheel to slow you down

This can be unhelpful:

If you do not lubricate your bike chain using oils, friction between the chain and the axles make it difficult to pedal.

Like friction, air resistance and water resistance forces can also be reduced. This is known as streamlining.

8. Investigating Forces

Scientific Question: Does wing length affect the time taken to land?

Independent variable:

wing length (cm)

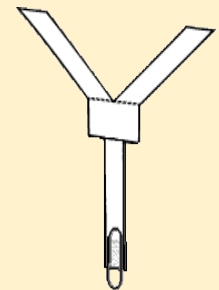
Dependent variable:

time taken to land (seconds)

Control variable:

height dropped from (cm)

mass of helicopter (g)



Chemical reactions and physical changes

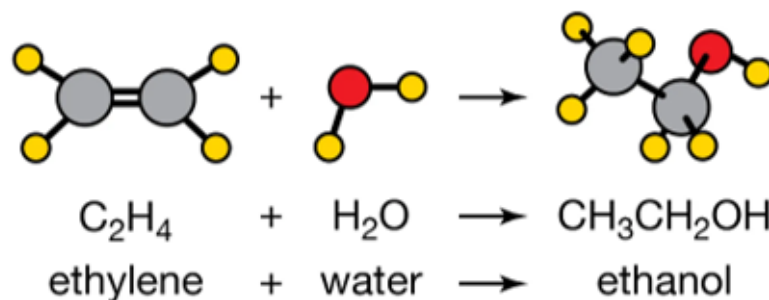
- Physical changes are ones which do not make new products and are easy to reverse such as

- changes of state
- dissolving
- crystallisation



Block 1 – Chemical reactions

- In a chemical reaction bonds between atoms are broken and made, this means chemical reactions result in new products being made and are difficult to reverse



- You can tell a chemical reaction has taken place if you observe one of the following:

- a change in colour
- a change in temperature
- gas being released (bubbling/fizzing)

Thermal decomposition reactions

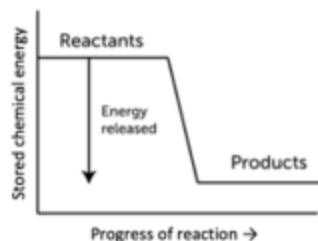
- A decomposition reaction is when a substance breaks down into simpler substances.
- Thermal decomposition reactions need heat to happen

Exothermic and endothermic reactions

Block 1 – Chemical reactions

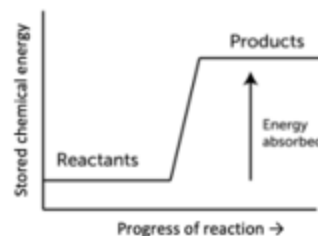
- You might have already observed chemical reactions which warm up, glow brightly or make a sound – this shows that they are transferring energy to the environment.
- Reactions that give out energy to the surroundings are called exothermic reactions. The energy is usually transferred by heating, but can be transferred as light or sound. If you put a thermometer into or near the reaction mixture, there will be an increase in temperature.
- Reactions that take in energy from the surroundings are called endothermic reactions. If you put a thermometer into or near the reaction mixture, there will be a decrease in temperature.
- You can draw graphs to explain exothermic and endothermic reactions:

Exothermic reactions



- The reactants have more energy than the products.
- As the reaction took place, energy was released – this made the temperature increase.
- Therefore the reaction is exothermic.

Endothermic reactions



- The products have more energy than the reactants.
- The extra energy has come from the surroundings.
- As energy was absorbed, the temperature decreased.
- Therefore the reaction is endothermic.

Oxidation reactions

- When a substance reacts with oxygen, it is called an oxidation reaction.
- When a metal reacts with oxygen, a metal oxide is formed. For example:
magnesium + oxygen $\rightarrow$ magnesium oxide
- All metal oxides are solid bases. A base is a chemical which can neutralise an acid. If a base dissolves in water it makes an alkali.

For example: sodium oxide + water $\rightarrow$ sodium hydroxide.

- Many non-metals also react with oxygen to produce a non-metal oxide.

For example: sulphur + oxygen $\rightarrow$ sulphur dioxide

- Non-metal oxides can be solids, liquids or gases. If a non-metal oxide reacts with water, it usually makes an acid

For example: carbon dioxide + water $\rightarrow$ carbonic acid. Conservation of mass

- Since no atoms are created or destroyed, the mass must always be conserved in a chemical reaction.
- This means that the total mass of the reactants is the same as the total mass of the products (remember mass measures the amount of matter).
- This is why we have to balance chemical equations – the number of atoms before and after the reaction must be the same

Block 1 – Chemical reactions

Combustion Reactions

Combustion is a type of oxidation reaction where a fuel reacts (burns) with oxygen. This transfers energy by heating.

It requires oxygen, heat and fuel

The products of combustion are carbon dioxide and water



For example: methane (natural gas) + oxygen $\rightarrow$ carbon dioxide + water

When there isn't enough oxygen to fully oxidise the fuel, incomplete combustion forms

Incomplete combustion causes smoke to be given off and less energy is released

The products of incomplete combustion are water and a mix of carbon, carbon monoxide and carbon dioxide.

The amount of each carbon substance depends on the amount of oxygen available.

Lots of oxygen makes more carbon dioxide and less produces more carbon and carbon monoxide

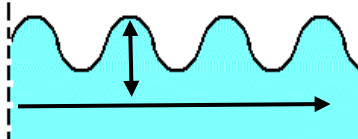
For example: methane (natural gas) + oxygen $\rightarrow$ carbon monoxide + water

1. Water waves

If you throw a pebble into a pond, ripples spread out from where it went in. These ripples are waves travelling through the water.

The waves are transverse. The vibrations (up and down movement) are at 90° to the direction of travel.

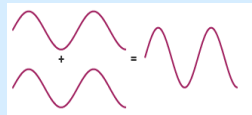
For example, if you stand still in the sea, the water rises and falls as the waves move past you.



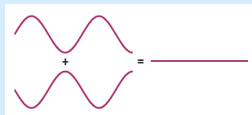
2. Superposition

When two waves meet, they affect each other, this is called **superposition**.

If waves meet 'in step' they will add together, increasing the **amplitude**.

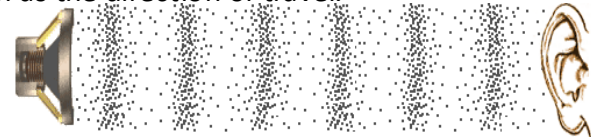


If waves meet 'out of step' they subtract, cancelling each other out.



3. Sound waves

Sound waves are **longitudinal waves** - the vibrations are in the same direction as the direction of travel.



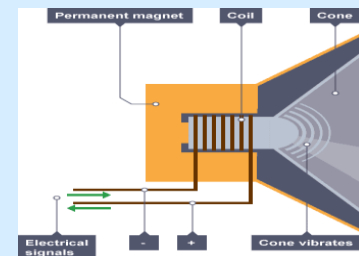
Sound travels fastest in a solid. Particles can pass energy on quickly because they are arranged in a regular pattern and are tightly packed.

4. Loudspeakers

Sound waves are produced by all vibrating objects.

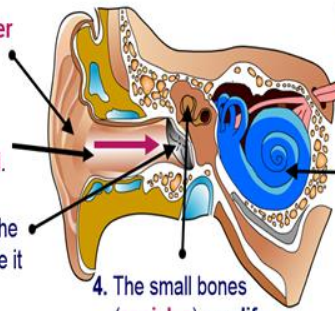
Loudspeakers work by converting electrical energy into kinetic energy.

This moves the cone which creates the sound waves.



5. Detecting sounds

1. Sound waves are collected by the **outer ear** (or **pinna**).
2. The waves travel along the **ear canal**.
3. The waves reach the **eardrum** and make it vibrate.
4. The small bones (**ossicles**) amplify the vibrations.
5. The **cochlea** turns these into **electrical signals**.
6. The **auditory nerve** takes the signals to the **brain**.

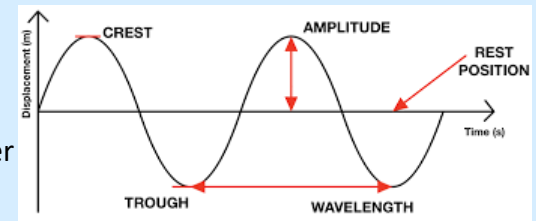


7. Oscilloscope traces

Amplitude is the height of the wave from its resting position – the greater the amplitude, the louder the sound

Wavelength is the distance between the crests (tops) of two waves

Frequency is the number of waves per second – the higher the frequency, the closer together the waves are and the higher the pitch



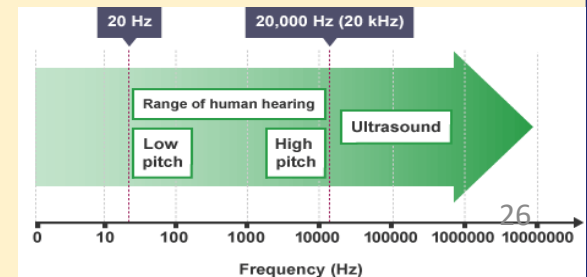
6. Microphones

Mobile phones and telephones contain microphones. These devices contain a diaphragm, which does a similar job to an ear drum. The vibrations in air make the diaphragm vibrate, and these vibrations are changed to electrical impulses. In the lab, the electrical impulses can be sent to an oscilloscope, which represents them as a graph on a screen



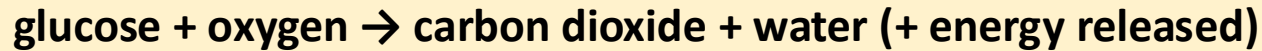
8. Human Hearing range

The frequency of sound waves is measured in hertz, which has the symbol Hz. The bigger the number, the greater the frequency and the higher the pitch of the sound. Human beings can generally hear sounds as low as 20 Hz and as high as 20,000 Hz (20 kHz).

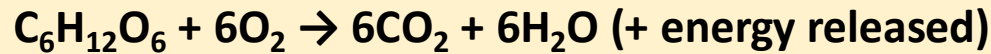


Respiration is a chemical reaction that happens in the mitochondria in all cells to produce energy for all living processes.

The word equation for aerobic respiration is:

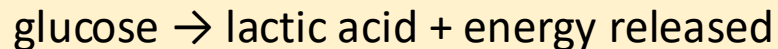


You need to be able to recognise the chemical symbols:



Most organisms cannot respire without oxygen but some organisms and tissues can continue to respire if the oxygen runs out. These organisms and tissues use the process of anaerobic respiration.

The word equation for anaerobic respiration is:

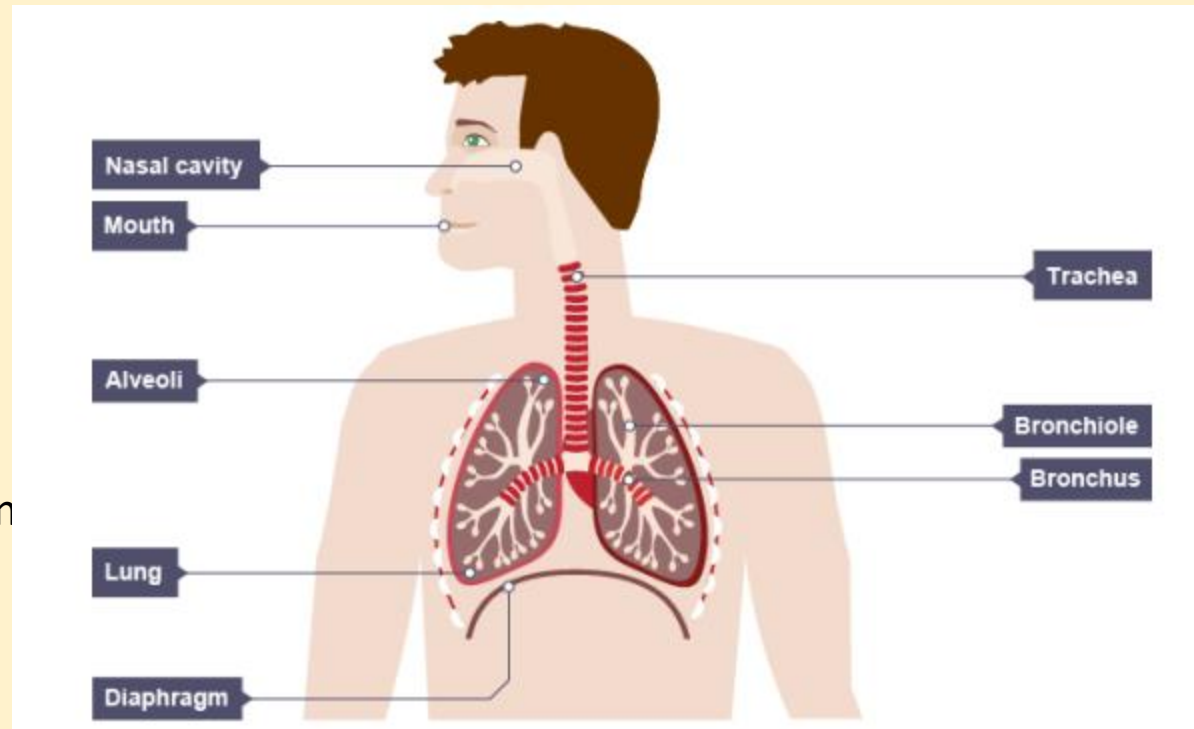


The lactic acid builds up in our muscles and causes them to ache, when we have enough oxygen it is broken down

Air passes from the mouth into the **trachea**, often called the windpipe.

The trachea divides into two **bronchi**, with one bronchus for each lung.

Each bronchus divides further in the lungs into smaller tubes called **bronchioles**.



At the end of each bronchiole, there is a group of tiny air sacs.

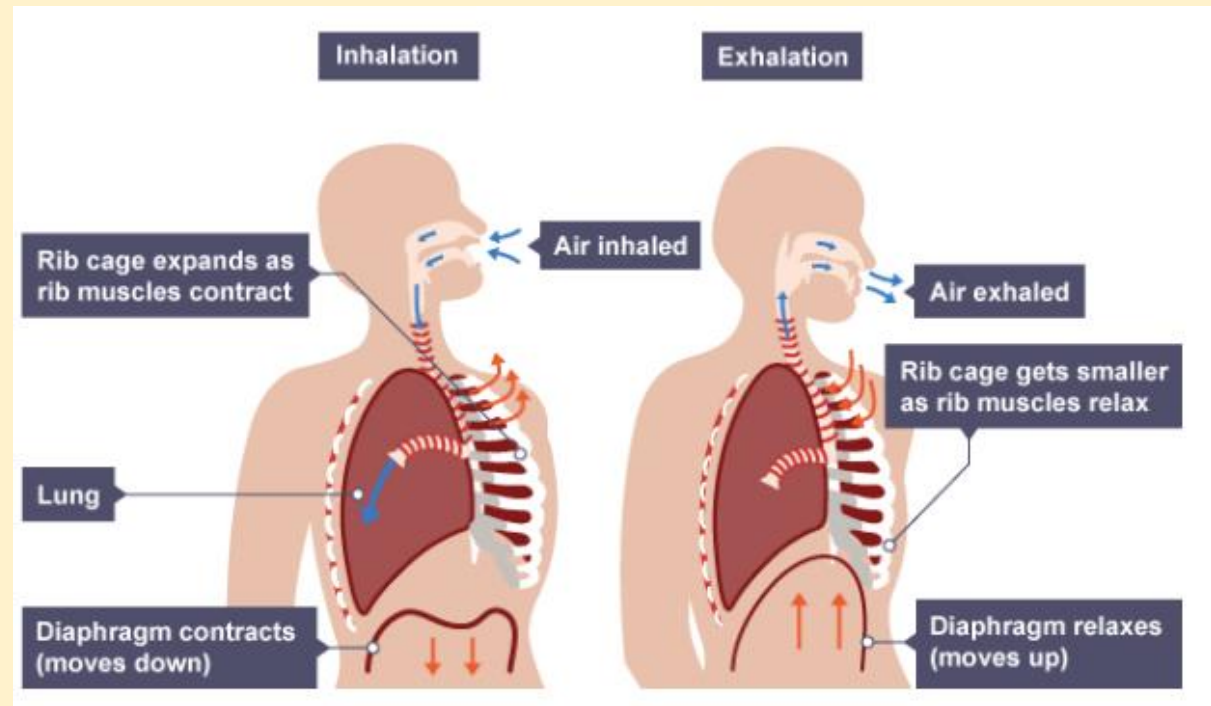
These air sacs have bulges called **alveoli** to increase their surface area.

They are only one cell thick so oxygen can easily pass through into the blood

Carbon dioxide comes out of the blood and is breathed out

Breathing

Breathing is the term given to the process of taking air into and out of the lungs.



Two important structures for breathing are the diaphragm and intercostal muscles.

The diaphragm is a sheet of muscle that separates the chest (or thoracic) cavity from the rest of the body.

The intercostal muscles are found between the ribs and they control rib movement.

The impact of exercise

Muscles need **energy** to contract.

While exercising, the muscles need additional energy as:

- **the breathing rate and volume of each breath increases**
- This brings **more oxygen** into the body and remove the carbon dioxide produced
- **the heart rate increases**, to supply the muscles with extra oxygen and remove the carbon dioxide produced

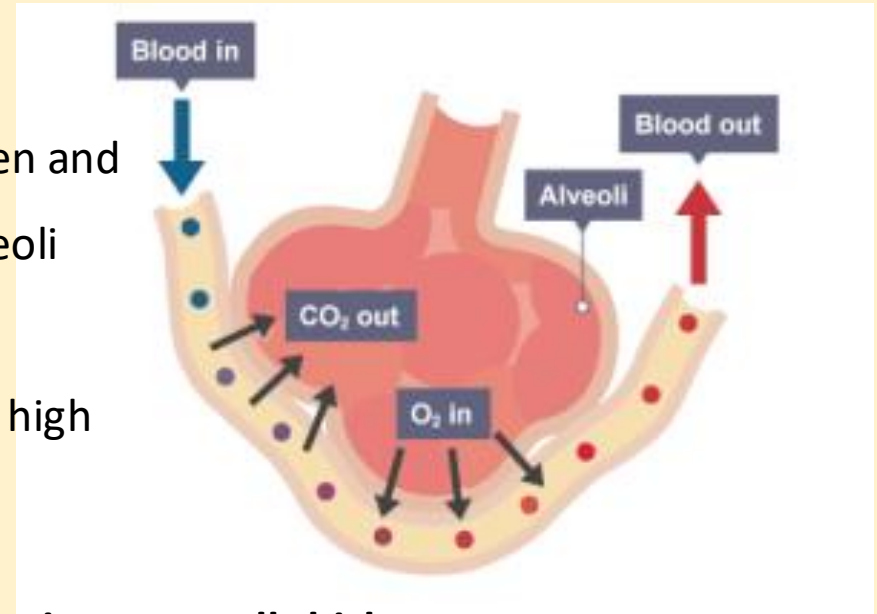
If insufficient oxygen is available to the muscles, for instance the exercise is vigorous and/or prolonged,

- the heart and lungs are unable to supply sufficient oxygen. Muscles begin to respire anaerobically.
- Lactic acid is produced from glucose, instead of carbon dioxide and water.
- Muscles continue to contract, but less efficiently.

Gas exchange occurs at the **alveoli** in the lungs and takes place by **diffusion**.

The alveoli are surrounded by **capillaries** so oxygen and carbon dioxide diffuse between the air in the alveoli and the blood in the capillaries.

Diffusion is the movement of gas from an area of high concentration to an area of low concentration.



Both the capillaries and alveoli walls are very thin - **just one cell thick**.

They are made of **semi-permeable membranes** which allow oxygen and carbon dioxide to pass through them.

There is a high concentration of oxygen in the alveoli and a low concentration of oxygen in the blood, so oxygen diffuses from the alveoli into the blood. There is a high concentration of carbon dioxide in the blood and a low concentration in the alveoli, so carbon dioxide diffuses from the blood into the alveoli.

Substance	Effect on the body
Tar	Causes cancer of the lungs, mouth and throat. It coats the inside of the lungs, including the alveoli, causing coughing. It damages the alveoli, making it more difficult for gas exchange to happen
Soot	hot smoke and tar from smoking damages the cilia Cillia are hair like cells in the trachea and bronchi with hairs that move mucus containing microbes out of the lungs As a result of this, smokers cough to move the mucus and are more likely to get bronchitis
Nicotine	Nicotine is addictive. It causes a smoker to want more cigarettes. It also increases the heart rate and blood pressure, and makes blood vessels narrower than normal. This can lead to heart disease
Carbon Monoxide	Carbon monoxide is a gas that takes the place of oxygen in red blood cells. This reduces the amount of oxygen that the blood can carry. It means that the circulatory system has to work harder, causing heart disease.

Health and Safety



Carry knives pointing down.



Wash up with hot water and washing liquid.



Clean surfaces and equipment to kill bacteria.



Wash hands with soap after touching raw meat.



Wipe up spills straight away to avoid slips.

Chopping board colour coding

Red - Raw meat

Blue - Raw fish

Yellow - Cooked meat

Green - Salad and fruit

Brown - Vegetables

White - Bakery and dairy

Knife Skills

- Always carry knives pointing downwards
- Always pass knives by the handle
- Never run or fight with knives
- Keep the knife blade away from your fingers when cutting
- Never cut towards yourself
- Never leave a knife in the sink
- Never try and catch a knife if it falls

When using a knife there are **TWO** techniques we can use to ensure knife safety when cutting ingredients.



Claw grip



Arch grip

Nutrient	Use in the body	Sources
Carbohydrates	To provide energy.	Potatoes, pasta, bread, rice, lentils, noodles, flour.
Protein	For growth, repair and some energy.	Eggs, milk, yoghurt, cheese, fish and seafood, nuts, seeds, soya, meat.
Fat	To provide energy. Also to store energy in the body and insulate it against the cold.	<u>Animal fats</u> : Lard, butter, fish. <u>Plant based</u> : Olive oil, sunflower oil.
Minerals	Needed in small amounts to maintain health e.g. calcium for bone health.	<u>Calcium</u> : Milk, cheese, dairy, green leafy vegetables. <u>Iron</u> : Clams, liver, sunflower seeds, nuts, beef, lamb, beans, whole grains, dark leafy greens.
Vitamins	Needed in small amounts to maintain health.	<u>Vitamin D</u> : Fish oils, fatty fish, mushrooms, beef. <u>Vitamin B</u> : Cereals.
Fibre	Helps to keep the food moving through the gut.	Cereals, bread, beans, lentils, fruit & vegetables.

Common Food Poisoning Pathogens

Pathogen	Sources	Symptoms
E coli	Raw meat, untreated milk and water.	Vomiting, blood in diarrhoea, kidney damage or failure.
Listeria	Soft cheese, pate, unpasteurised milk, under cooked meat.	Mild flu, meningitis and pneumonia.
Clostridium perfringens	Dirt from soil containing animal faeces.	Diarrhoea, stomach cramps.
Salmonella	Raw meat, eggs, seafood, dairy products.	Diarrhoea, vomiting, fever.
Bacillus cereus	Cooked rice, pasta, cereal foods.	Nausea, vomiting, diarrhoea.
Staphylococcus Aureus	Anything touched by hand, dairy products.	Nausea, vomiting, diarrhoea.

Common Food Allergies



A food allergy is when the body's immune system reacts unusually to specific foods. Although allergic reactions are often mild, they can be very serious.

A food intolerance is difficulty digesting certain foods and having an unpleasant physical reaction to them. These include coeliac disease (allergic to gluten) and lactose intolerance (allergic to a type of sugar mainly found in milk and dairy).

Cooking Processes

Radiation

Heat from an oven or grill.

Denaturation

When the protein in cheese unravels (melting).

Gelatinisation

When starch granules swell.

Coagulation

The process when something thickens from a liquid to a solid

Convection

The movement of particles through a substance, moving heat energy from hot areas to cooler areas.

Stock

The juice from cooked meats, fish, and vegetables.

Enzymic Browning

A reaction that occurs in some fruit and vegetables when left to react with air.

Gluten

The protein particles contained in flour.

Shortening

Rubbing flour and fat together to make a crumbly mixture.

Dextrinisation

A chemical process that turns food brown/black when cooking.

Resistant Materials

Workshop Tools



Coping saw



Tenon saw



Woodwork file



Pillar drill



Belt sander



Bench hook

Timbers

Timber comes from trees. Trees have to grow to full maturity (between 25 and 100 years) before they can be cut down for wood. Timber is grouped into three categories; hardwood, softwood and manufactured boards.

Hardwoods

Hardwoods come from deciduous trees, which have large flat leaves that fall in the autumn. Hardwoods take longer to grow, are not easily sourced and are expensive to buy.

A tree has a ring for every year it grows, the darker part of the ring is strong. Hardwoods have closely packed rings because they grow slower. This makes them hard.

Ash, Beech, Mahogany, Oak and Balsa are examples of hardwoods.

Softwoods

Softwoods come from coniferous trees. These often have pines or needles, and they stay evergreen all year round - they do not lose leaves in the autumn. They are faster growing than hardwoods, making them cheaper to buy, and are considered a sustainable material.

A tree has a ring for every year it grows, the darker part of the ring is strong. Softwoods have big growth gaps between the rings making them softer.

Larch, Pine and Spruce are examples of softwoods.

Manufactured boards

Manufactured boards are usually made from timber waste and adhesive.

To make them more aesthetically pleasing they are often veneered (a thin layer of wood, applied to give a nice surface). They are cheap to buy.

Medium-density fibreboard (MDF), Plywood and Chipboard are examples of manufactured boards.

Resistant Materials

We use **ACCESS FM** to help us write a **specification** - a list of requirements for a design - and to help us **analyse and describe** an already existing product.

ACCESS FM - Helpsheet

A is for **Aesthetics**



Aesthetics means **what does the product look like?**
What is the: Colour? Shape? Texture? Pattern? Appearance? Feel? Weight? Style?

C is for **Cost**



Cost means **how much does the product cost to buy?**
How much does it: Cost to buy? Cost to make?
How much do the different materials cost? Is it good value?

C is for **Customer**



Customer means **who will buy or use your product?**
Who will buy your product? Who will use your product?
What is their: Age? Gender?
What are their: Likes? Dislikes? Needs? Preferences?

E is for **Environment**



Environment means **will the product affect the environment?**
Is the product: Recyclable? Reuseable? Repairable? Sustainable?
Environmentally friendly? Bad for the environment?
6R's of Design: Recycle / Reuse / Repair / Rethink / Reduce / Refuse

S is for **Size**



Size means **how big or small is the product?**
What is the size of the product in millimeters (mm)? Is this the same size as similar products? Is it comfortable to use? Does it fit?
Would it be improved if it was bigger or smaller?

S is for **Safety**



Safety means **how safe is the product when it is used?**
Will it be safe for the customer to use? Could they hurt themselves?
What's the correct and safest way to use the product? What are the risks?

F is for **Function**



Function means **how does the product work?**
What is the product's job and role? What is it needed for? How well does it work? How could it be improved? Why is it used this way?

M is for **Material**



Material means **what is the product made out of?**
What materials is the product made from? Why were these materials used? Would a different material be better? How was the product made? What manufacturing techniques were used?

Key Vocabulary

ACCESS FM

ACCESS FM is a method used in Design and Technology to effectively analyse a product.

Design Brief

A paragraph outlining what you intend to design, using as much detail as possible.

Design Specification

A specification is a list of bullet points that tells the designer exactly what the product has to do and what the requirements are. You can use ACCESS FM to help you write it.
This needs to be very detailed..

Product analysis

Product analysis can take different forms but in general it means asking questions about a product and forming answers. It can mean experts analysing a product or members of the general public or potential customers/groups of people. Product analysis can take place at almost any stage of the design process.

Sustainability

Causing little or no damage to the environment and therefore, able to continue for a long time.

Textiles

Fibres are small hair like structures that are used to make fabrics.

On their own they are very weak but when twisted to make yarn they become stronger.

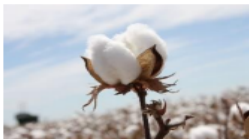
TYPES OF MATERIAL

There are two main groups of fibres Natural and Manmade, these are also divided into sections.

Natural Polymers/Fibres:

These are from animals or plants and are all **biodegradable** (rot away) and are **sustainable** as they will grow again so are environmentally friendly if they are produced **organically**.

Plant	Cotton	Flax (linen)	Hemp	Jute	Bamboo	Soya
Animal	Wool (sheep)	Mohair (goat)	Cashmere	Angora (rabbit)	Alpaca	Llama
Insect	Silk (worm)					



Cotton is produced from plants. To be totally environmentally friendly plant fibres must be produced **organically**. Most cotton is produced using pesticides which as well as killing the insects or diseases is also bad for the environment and makes the workers ill.

Manmade (Manufactured) Polymers/Fibres:

Synthetic: These are made from chemicals which come from oil or coal. These fibres are not environmentally friendly.

Regenerated fibres: These are made from a combination of chemicals and cellulose (tree products).

Synthetic	Acrylic	Polyester	Nylon	Lycra	Elastane	Polypropylene
Regenerated	Viscose	Rayon	Acetate	Lycell (Tencel)		
Smart Fibres	Materials that's change when exposed to change in temperature, pressure or light.					

Cotton (natural, plant based fibre)

Properties/Characteristics:

① Absorbent	② Soft	③ Cool	④ Good resistance to heat
⑤ Fine	⑥ Strong	⑦ Highly flammable	⑧ Poor elasticity

Used in everyday clothing items, coffee filters, fishing nets and book binding.

Wool (natural, plant based fibre)

Properties/Characteristics:

① Warm	② Very absorbent	③ Medium strength	④ Good elasticity
⑤ Does not burn easily	⑥ Susceptible to being attacked by pests, such as clothes moths.		

Used in everyday clothing, blankets, horse rugs, carpets and upholstery.



Silk (natural, animal based fibre)

Properties/Characteristics:

① Very absorbent	② Soft	③ Fine	④ Lustrous
⑤ Very good resilience	⑥ Good elasticity	⑦ Can be damaged by deodorants and perfumes	



Used in luxury clothing and bedding, rugs and wall hangings.

Polyester (synthetic fibre)

Properties/Characteristics:

① Extremely strong	② Flame resistant	③ Thermoplastic	④ Poor absorbency
⑤ Good elasticity and resilience	⑥ Damaged by acids	⑦ Resistant to solvents and alkalis	



Used in ropes, belts, upholstery padding and low-cost clothing.

Elastane (synthetic fibre)

Properties/Characteristics:

① Lightweight	② Fairly strong	③ Very poor absorption	④ Medium-to-coarse filaments
⑤ Extremely elastic	⑥ When stretched it returns to original shape	⑦ Not damaged by sunlight or sea water	

Used in sportswear, swimwear, tights.

Felted Fabric (non-woven fabric)

Properties/Characteristics:

① Does not fray	② Warm	③ Matted together using moisture, heat and pressure	
④ Little strength	⑤ No elasticity	⑥ Made from wool fibres/ animal hair	



An expensive fabric. Used in hats, slippers, handicrafts and embellishing.

Polycotton (blended fibre)

Properties/Characteristics:

① Non-iron / easy to iron	② Moisture absorbing	③ Polyester and cotton blend
④ Strong	⑤ Durable	



Used in bedding and clothing.

Rugby

We will focus on: You will develop skills and acquire knowledge and understanding of rules and regulations and how to apply these.

THE GAME

Y7/8 up to 12 players per side, whom all have different positions

Y9/10 up to 15 players per side, whom all have different positions

Aim of the game is to run the ball into the try zone (behind the posts) and place the ball down

BASIC RULES

Attackers must pass the ball backwards or sideways

If a ball is passed forwards or dropped forwards from a player's hand, then a scrum is awarded

Both attackers and defenders must stay behind the ball where possible

A game restarts by the conceding team kicking towards the attacking team from the half-way line

When tackling, both arms must be used, and it must be waist height or below

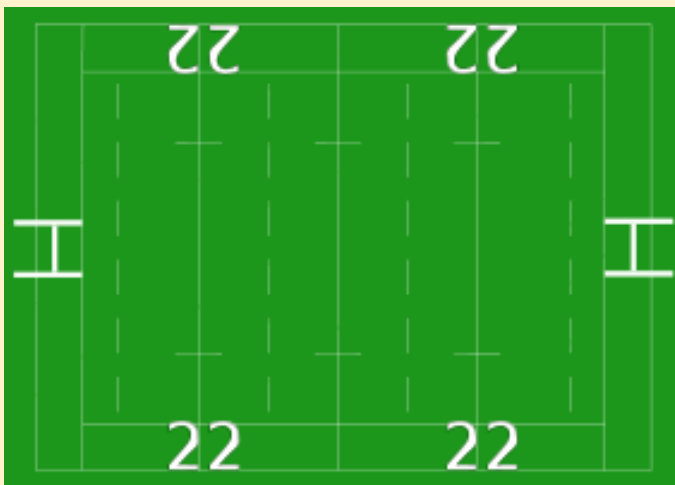
Rucks and mauls can be used to contest possession once a tackle has been made

Advantage can be played to keep the game flowing if the attacking team still retain possession

Warming up before PE is very important.

A warm up consists of:

- Pulse raising
- Mobility
- Dynamic movement
- Stretching
- Skill rehearsal phase



High tackle	When a defender makes a tackle higher than the shoulders
Offside	When the ball is on the floor from a contact situation, the defender/attacker is in front of the ball
Knock-on	When an attacker drops the ball forward from their hands
Forward pass	If the ball is passed forward to a member on their team

Netball

We will focus on: You will develop skills and acquire knowledge and understanding of rules and regulations and how to apply these.

THE GAME

7 players per side, whom all have different positions

A goal is scored when a GA or GS gets the ball into the hoop from within the D.

All players have set positions and set areas that they are allowed to go

BASIC RULES

You cannot move when you have the balls in your hands.

Your position influences where you are allowed on the court.

You must be 1m away from the ball to defend it.

If the ball gets knocked out of the court by team A, then team B will gain the throw in.

A penalty is awarded if obstruction or contact has been called.

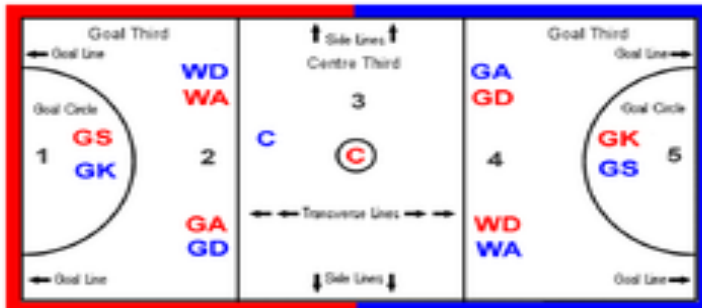
A free pass is awarded if footwork or offside has been called.

Warming up before PE is very important.

A warm up consists of:

- Pulse raising
- Mobility
- Dynamic movement
- Stretching
- Skill rehearsal phase

Netball Court Positions



Footwork	When you place down your landing foot.
Offside	If you go into an area you are not allowed to.
Contact	When you contact/touch another person on court.
Obstruction	If you stand closer than 1m to the opposition with the ball.
Penalty	If you case a foul to/on another player.
Free pass	If you commit a foul on your own.

Indoor Athletics

We will focus on: You will develop skills and acquire knowledge and understanding of rules and regulations and how to apply these.

EVENTS

During your indoor athletics lessons, you will cover a wide range of events:

Running events – 1x1 Lap Relay 2x2 Lap Relay, 4 x 1 Lap Relay 4 x 2 Lap Relay, Obstacle relay, 6 lap parlauf, 8 lap parlauf.

Throwing events – Shot putt, Indoor javelin, indoor discus.

Jumping events –standing long jump, standing triple jump, speed bounce vertical jump.

BASIC RULES

Athletes competing must step up to the start line, ensuring that their feet remain behind the line. On the whistle the athlete runs towards the 1st Reverse board, turns and runs the return leg, turning on the 2nd Reversaboard behind the team mat. They must return to the centre of the hall to either continue or finish the race.

Shot putt the athlete must stay behind the release line at all times or would lead to a “no throw” Throws are measured from the first point of contact with the ground, not where the shot finishes.

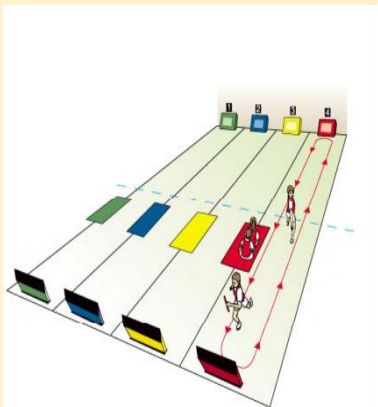
Long jump and standing triple jump the athlete must stand on the mat with both feet behind the take off datum line.

Vertical jump the athlete must stand sideways on to the wall with the nominated jumping arm closest to the wall. They then jump from a standing position and touch the scale at the highest possible point

Warming up before PE is very important.

A warm up consists of:

- Pulse raising
- Mobility
- Dynamic movement
- Stretching
- Skill rehearsal phase



Coordination	The maintenance of the centre of mass over the base of support. Reference can be made to whilst static or dynamic.
Speed	The maximum rate at which an individual is able to perform a movement or cover a distance in a period of time.
Power	The product of strength and speed, i.e. strength x speed.
Agility	The ability to move and change direction quickly (at speed) whilst maintaining control.
Balance	The maintenance of the centre of mass over the base of support. Reference can be made to whilst static or dynamic.

Team Building

We will focus on: You will develop skills and acquire knowledge and understanding of rules and regulations and how to apply these.

What is it?

Team building often consists of two parts for each challenge or activity.

You have the initial activity and then afterwards is time for reflection.

This is a time where students truly show how much they've learned and how far they've grown.

During this time as the facilitator, you should present the group with questions to guide them into discovering how these concepts affect their everyday lives.

BASIC ACTIVITIES

Below is a series of activities which can be used to help students develop their team building qualities.

- Orienteering
- Across the river
- Bench ball
- Human Knot
- Tug of war
- Mine Sweeper



Warming up before PE is very important.

A warm up consists of:

- Pulse raising
- Mobility
- Dynamic movement
- Stretching
- Skill rehearsal phase

Non-verbal communication	Non-verbal communication occurs without using any oral or written word. Eye contact, Facial expressions, Gestures, Posture & body orientation and body Language.
Verbal communication	Verbal communication is any communication that uses words to share information with others. These words may be both spoken and written.
Teamwork	Teamwork is the collaborative effort of a team to achieve a common goal or to complete a task in the most effective and efficient way.
Leadership	The action of leading a group of people
Tactical awareness	Involves the ability to know your role and have positional awareness and possessing the ability to make good decisions

Est-ce que tu aimes... ?
Do you like...?

OPINION		JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Je préfère I prefer	 le pain (bread)	parce que c'est because it is	très very	agréable (pleasant)
	 le poisson (fish)			délicieux/euse (delicious)
	 le fromage (cheese)			Frais / fraîche
J'adore I love	 le beurre (butter)		assez quite	savoureux/euse (tasty)
	 le lait (milk)			sain/e (healthy)
	 le café (coffee)			horrible (horrible)
J'aime I like	 le thé (tea)		un peu a bit	terrible (awful)
	 le coca (coke)			Sucré /doux/douce (sweet / soft)
	 le jus d'orange			aigre (sour)
Je n'aime pas I don't like	 le sucre (sugar)		trop too	dégoûtant/e (disgusting)
	 le jambon (ham)			épicé/e (spicy)
	 le chocolat chaud (hot chocolate)			salé (salty)
Je déteste I hate	 la pomme (apple)			gras/se (fatty)
	 la viande (meat)			bon/bonne pour la santé (good for your health)
	 la confiture (jam)			mauvais/e pour la santé (bad for your health)
À mon avis In my opinion	 la glace (ice-cream)			
	 les haricots verts (green beans)			
	 les légumes (m) (vegetables)			
Je pense que I think that	 les frites (chips)			
	 les chips (crisps)			
	 les épinards (spinach)			
	 les champignons (mushrooms)			
	 les oeufs (eggs)			
	 l'eau (water)			
	 Le poulet (chicken)			
	 La nourriture (food)			



NO ADJECTIVAL AGREEMENT
AFTER C'EST (after C'EST the
adjective is always MASCULINE)

8.5 Food and Drink FRENCH



AU RESTAURANT	IN THE RESTAURANT
Qu'est-ce que vous voulez manger? Est-ce que je peux vous aider?	What would you like to eat? Can I help you?
Le menu/ la carte	The menu
Un plat végétarien	A vegetarian dish
Comme entrée	For the starter
Comme plat principal	For the main
Comme dessert	For dessert
Comme boisson	For drinks
Je voudrais	I would like
Manger/boire	To eat/ to drink
Je prends...	I'll take (have)
Un serveur/ une serveuse	A waiter/ waitress
L'addition s'il vous plaît	The bill, please
Le pourboire	The tip
C'est	That's all
Merci	Thank you
AU SUPERMARCHÉ	AT THE SUPERMARKET
Tu voudrais...?	Would you like...?
Un paquet de	A packet of
Un litre de	A litre of
Un kilo de	A kilo of
Un demi kilo de	Half a kilo of
Une bouteille de	A bottle of

les repas	Meals
Le petit déjeuner	Breakfast
Le déjeuner	Lunch
Le goûter	Snack
Le dîner	Evening meal/tea



Verbs and the present tense in French

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **infinitive** (regarder, manger, boire, finir, jouer, avoir, être, etc.). The infinitive ends in **–er**, **–ir** or **–re**.

Forming the present tense in French

Take off the last 2 letters of the infinitive (**–er**, **–ir** or **–re**) and add the following endings depending on the pronoun:

	ER verb	IR verb	RE verb
je	–e	–is	–s
tu	–es	–is	–s
il / elle / on	–e	–it	/
nous	–ons	–issons	–ons
vous	–ez	–issez	–ez
ils/elles	–ent	–issent	–ent

Adjective agreement.

Remember adjectives have to agree with the noun they are describing. Normally we add an **–e** to make it feminine unless there is already an **e** and we add an **–s** to make it plural.

*But be careful! :

- Adjectives which end in **–f** change to **–ve** feminine
- Adjectives which end in **–ux** or **–ur** change to **–se** in feminine.
- Adjectives which end in **–il** change to **–ille** in the feminine.

Check out the examples below:

Il est délicieux – elle est délicieuse

Il est sain – elle est saine

Il est savoureux – elle est savoureuse

Il est gras – elle est grasse

Comparisons

Plus (...) que - more (...) than

le coca est **plus** sucré **que** le lait

Moins (...) que - less (...) than

la viande est **moins** saine **que** le poisson

Superlative

Le /la plus - the most

le citron est **le plus** aigre

Le /la moins - the least

l'eau est **la moins** calorique

Opinion phrases help to make your work more interesting – have a look at the list on your vocabulary list. Try to use a range of different ones in your work e.g. *J'aime (I like)/je pense que (I think that)/ à mon avis (in my opinion).*

In French there are different ways of saying 'some'. See the box to the right.

Words come before the noun	masculine (sing.)	feminine (sing.)	feminine singular (vowel)	masculine plural	feminine plural
some	du	de la	de l'	des	des

8.5 Food and Drink FRENCH



Est-ce que tu aimes... ?
Do you like...?

OPINION	NOUN	JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Je préfère I prefer	le pain (bread)	parce que c'est because it is	très very	agréable (pleasant)
	le poisson (fish)			délicieux/euse (delicious)
	le fromage (cheese)			fantastique (fantastic)
J'adore I love	le beurre (butter)		assez quite	savoureux/euse (tasty)
	le lait (milk)			sain/e (healthy)
	le café (coffee)			horrible (horrible)
J'aime I like	le thé (tea)		un peu a bit	terrible (awful)
	le coca (coke)			doux/douce (sweet)
	le sucre (sugar)			aigre (sour)
Je n'aime pas I don't like	le jambon (ham)		trop too	dégoûtant/e (disgusting)
	le chocolat chaud (hot chocolate)			épicé/e (spicy)
Je déteste I hate	la pomme (apple)			salé (salty)
	la viande (meat)			gras/se (fatty)
À mon avis In my opinion	la confiture (jam)			bon/bonne pour la santé (good for your health)
	la glace (ice-cream)			mauvais/e pour la santé (bad for your health)
Je pense que I think that	les haricots verts (green beans)			⚠️ REMEMBER TO MAKE THE ADJECTIVES AGREE WITH THE NOUN
	les légumes (vegetables)			
	les frites (chips)			
	les chips (crisps)			
	les épinards (spinach)			
	les champignons (mushr ooms)			
	l'oeuf (egg)			



REMEMBER TO MAKE THE
ADJECTIVES AGREE WITH THE NOUN

Quand est-ce que tu
manges?

Le petit déjeuner	Breakfast
Le déjeuner	Lunch
Le goûter	Snack
Le dîner	Evening meal/tea

AU SUPERMARCHÉ

AT THE SUPERMARKET
Tu voudrais...? Would you like...?
Un paquet de A packet of
Un litre de A litre of
Un kilo de A kilo of
Un demi kilo de Half a kilo of
Une bouteille de A bottle of

AU RESTAURANT

Qu'est-ce que vous voulez
manger? Est-ce que je peux
vous
aider?

Comme entrée

Comme plat principal

Comme dessert

Comme boisson

Je voudrais

Manger/boire

Je prends...

Un serveur/ une serveuse

L'addition s'il vous plaît

Le pourboire

IN THE RESTAURANT

What would you like to eat?

Can I help you?

For the starter

For the main

For dessert

For drinks

I would like

To eat/ to drink

I'll take (have)

A waiter/ waitress

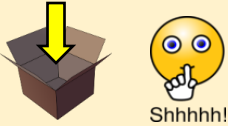
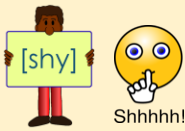
The bill, please

The tip

C'est combien ?

How much?

dix	10
vingt	20
vingt et un	21
trente	30
trente et un	31
quarante	40
cinquante	50
soixante	60
soixante-et-un	61
soixante-dix	70
soixante-onze	71
quatre-vingt	80
quatre-vingt-deux	82
quatre-vingt-dix	90
quatre-vingt-douze	92
cent	100
deux cents	200

SFC [silent final consonant]  dan x	a  animal	i  midi	eu  deux	e  je	au [au/eau]  gauche
u  tu	ou  nous	SFE [silent final -e]  timide x	é [é/-er/-ez]  écrire	en/an  enfant	on  Non!
ain/in  train	ê/è  tête [head]	ai  vrai	oi  voir [to see]	ch  chercher	ç/soft c  ici
qu  question	j/soft  jour	-tion  Attention!	ien  bien	Francophoniques	

Opinion starters:

Je pense que	I think that
Je crois que	I believe that
À mon avis	In my opinion
Pour moi	For me
Il me semble	It seems to me

Je pense que Bristol est historique - I think that Bristol is historic

Je crois que Londres est assez industriel – I think that London is quite industrial

Je préfère Bath parce que c'est moins touristique que Liverpool – I prefer Bath because it is less touristy than Liverpool.

Phrases that use infinitives.

An infinitive is the basic form of the verb. In English it starts with to_ to run, to jump, to swim.

In French the verb ends in –re, -er , -ir.

e.g. I like to run – J'aime courir.

On peut	– One can
Je vais	- I am going to
J'aime	- I like

These are followed by an infinitive.

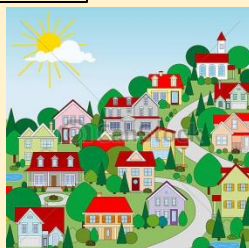
On peut **aller** au centre-ville – One can go to the city centre.

Je vais **manger** dans un restaurant – I am going to eat in a restaurant.

J'aime **jouer** dans le parc - I like to play football in the park.

Aller – to go

I	Je vais – I go / I am going
you	Tu vas – You go / you are going
he/she/it	Il/elle/on va – he goes / he is going
we	Nous allons – we go / we are going
you (pl)	Vous allez – you (pl) go / are going
they	Ils/ells vont – they go / are going



Il y a (there is) and il n'y a pas (there is not) – these phrases are very important to allow us to say what is in our town or city. Remember! When using il y a, we use a 'de', but no article e.g. **Il y a un parc** but **il n'y a pas de parc**

It is important to use the correct **article** in front of a noun. This will depend on if we want to say 'a' (indefinite article) or 'the' (definite article), and also in French if the noun is **masculine, feminine, singular or plural**.

Articles	A/some	The
Masculine	Un	Le
Feminine	Une	La
Plural	Des	Les

8.6 My home

French Vocab List

Où habites-tu? (Where do you live?)

J'habite (I live)	dans une maison (in a house)		à la campagne (in the countryside)	
			à la montagne (in the mountains)	
	dans un appartement (in a flat)		au bord de la mer (by the sea)	
			en ville (in the city/town)	
			en banlieue (in the suburbs)	
			dans un village (in a village)	

OPINION	NOUN	JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Je préfère I prefer	La plage (beach) 	parce que because it is	très very	petit(e) (small)
J'adore I love	La jetée (pier) 	c'est because it is	assez quite	grand(e) (big)
J'aime I like	La piscine (swimming pool) 	car c'est because it is	un peu a bit	historique (historic)
Je n'aime pas I don't like	La patinoire (ice rink) 		trop too	tranquille (peaceful)
Je déteste I hate	La boucherie (butcher) 			touristique (touristy)
A mon avis In my opinion	La boulangerie (bakery) 			industriel(le) (industrial)
Je pense que I think that	La gare (routièr e) (station) 			culturel(le) (cultural)
	La librairie (book shop) 			important(e) (important)
	Le centre-ville (town centre) 			animé(e) (lively)
	Le musée (museum) 			bruyant(e) (noisy)
	Le centre commercial (shopping centre) 			pollué(e) (polluted)
	Le supermarché (supermarket) 			moderne (modern)
	Le stade (stadium) 			joli(e) (pretty)
	Le parc d'attractions (theme park) 			
	L'hôpital (hospital) 			
	Les monuments (monuments) 			
	Les magasins (shops) 			
	L'église (church) 			

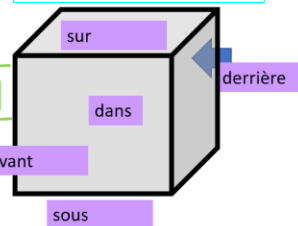
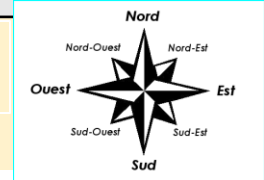
Décris où tu habites

Describe where you live

Dans ma maison In my house		J'ai I have	un jardin (a garden) 
			un grenier (a loft) 
			un bureau (an office/a study) 
Dans mon appartement In my flat		Je n'ai pas de I don't have	un garage (a garage) 
			un salon (a lounge) 
Au premier étage On the first floor			une entrée (a hallway) 
			une cuisine (a kitchen) 
Au deuxième étage On the second floor		Il y a There is	une chambre (a bedroom) 
			une salle à manger (a dining room) 
Au rez-de-chaussée On the ground floor		Il n'y a pas de There isn't	une salle de bains (a bathroom) 
			une terrasse (a terrace) 
			des toilettes (some toilets) 
			la chambre de mes parents (my parent's bedroom) 

Qu'est-ce qu'il y a dans ta chambre? (What is there in your bedroom?)

Un lit (a bed) 
Un mur (a wall) 
Un bureau (a desk) 
Un ordinateur (a computer) 
Une armoire (a wardrobe) 
De la moquette (some carpet) 
Une étagère (a shelf/shelves) 
Une lampe (a lamp) 
Une porte (a door) 
Une chaise (a chair) 
Une fenêtre (a window) 
Une commode (a chest of drawers) 
Des posters (some posters) 



Un ordinateur est **sur** le bureau
(a computer is on the desk)

Food and Drink Year 8 German Term 1 vocab list

Was isst du?	What do you eat?
das Brot	Bread
der Fisch	Fish
der Käse	Cheese
die Butter	Butter
die Milch	Milk
der Kaffee	Coffee
der Tee	Tea
die Cola	Coke
der Zucker	Sugar
der Schinken	Ham
heiße Schokolade	Hot chocolate
der Apfel	Apple
die Fleisch	Meat
die Marmelade	Jam
das Eis	Ice cream
grüne Bohnen	Green beans
das Gemüse	Vegetables
die Pommes	Chips
die Chips	Crisps
der Spinat	Spinach
das Ei	Egg
das Wasser	water



Wann isst du?	When do you eat?
das Frühstück	Breakfast
das Mittagessen	Lunch
der Imbiss	Snack
das Abendessen	Evening meal/tea

Magst du....?	Do you like....?
Ja	Yes
Nein	No
denn es ist...	Because it is...
gut	good
fantastisch	fantastic
köstlich	delicious
lecker/schmackhaft	tasty
gesund	healthy
schrecklich	horrible
furchtbar	awful
widerlich	disgusting
würzig	spicy
salzig	salty
fettig	fatty
Gut für deine Gesundheit	good for your health
entspannend	relaxing
gesellig	sociable
Eine Herausforderung	a challenge
Es macht Spaß	fun
toll/spitze	great
ermüdend	tiring
Nicht gut für deine Gesundheit	Bad for your health
ungesund	unhealthy



Was möchten Sie essen?	What would you like to eat?
Kann ich Ihnen helfen?	Can I help you?
Ich möchte ...	I would like...
essen/trinken	to eat/to drink
Vorspeise/Hauptgericht/Nachschinken/Getränk	starter/main meal /dessert/drink
Die Rechnung, bitte	The bill please
Kellner/Kellnerin	A waiter/waitress
Ich nehme/ich hätte gern	I'll take (have)
das Trinkgeld	The tip
Das ist alles	That's all
Danke	Thank you

Möchtest du...?	Would you like...?	Zahlen	Numbers
eine Packung	A packet of	zehn	10
ein Liter	A litre of	zwanzig	20
ein Kilo	A kilo of	dreißig	30
ein halbes Kilo	Half a kilo of	vierzig	40
eine Flasche	A bottle of	fünfzig	50
		sechzig	60
		einundsechzig	61
		siebzig	70
		einundsiebzig	71
		achtzig	80
		zweiundachtzig	82
		neunzig	90
		zweiundneunzig	92
		hundert	100
		zweihundert	200



Was magst du?	What do you like?
Ich mag	I like
Ich mag...nicht	I don't like
Ich liebe	I love
Ich hasse	I hate
Ich esse lieber	I prefer eating
Ich denke, dass	I think, that
Meiner Meinung nach	In my opinion

Verbs and the present tense in German

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **infinitive** (machen, essen, trinken, spielen, haben, sein, etc.). The infinitive ends in **-en or just -n**

Forming the present tense in German

For regular verbs follow the pattern opposite

However, the irregular verbs don't follow the pattern exactly. Your teacher will help you with these. (haben/sein/lesen/fahren)

Opinion phrases help make your work more interesting- have a look at the list on your vocabulary list. Try to use a range of opinions in your work e.g., ich mag (I like), ich denke, dass (I think that)

	machen	spielen	gehen
ich	mache	spiele	gehe
du	machst	spielst	gehst
er / sie/ man	macht	spielt	geht
wir	machen	spielen	gehen
ihr	macht	spielt	geht
Sie (you)	machen	spielen	gehen
sie (they)	machen	spielen	gehen

Useful verbs

Ich möchte	I would like
Ich hätte gern	I would like to have
Es ist	It is
Wir haben	We have
Wir sind	We are
Gibt es...?	Is there...?

Comparisons

Add 'er' to the adjective. You can't add the word 'mehr' = more.

Er ist **kleiner** = he is smaller es ist **billiger** = it is cheaper

Exceptions are besser (better)/größer(bigger)/älter(older)

Superlative

You add an '-ste' to the adjective, sometimes '-este' to make it easier to say. Fred ist der **Kleinste** = Fred is the **smallest**. Ellie ist die **Lauteste**

Comparing Things

Joe ist **älter als** Fred = Joe is older **than** Fred

Joe ist **weniger alt als** Fred = Joe is **less** old **than** Fred

Joe ist **so alt wie** Fred = Joe is **as** old **as** Fred

Joe ist **genauso alt wie** Fred = Joe is **just as** old **as** Fred

ESSEN	key verbs	TRINKEN
essen		trinken
Ich esse		Ich trinke
Du isst		Du trinkst
Er/sie isst		Er/sie trinkt
Wir essen		Wir trinken
Ihr esst		Ihr trinkt
Sie/sie essen		Sie/sie trinken

a  sa <u>g</u> en	e  ge <u>b</u> en	ei  fr <u>e</u> i	w  W <u>o</u> lt	z  Z <u>u</u> g		
i  w <u>i</u> r	ie  Lie <u>b</u> e		ch  <u>i</u> ch	ch  Bu <u>o</u> ch	sch  <u>s</u> chreiben	
o  w <u>o</u> ?	u  <u>d</u> u	er  <u>e</u> r	r  <u>r</u> eden	v  <u>v</u> or	s  <u>s</u> ollen	ß  <u>g</u> roß
ü  T <u>ü</u> r	ö  sch <u>ö</u> n	ä  sp <u>a</u> t	au  H <u>au</u> s	e u  Deutschland	ä u  M <u>ä</u> use	
-d  un <u>d</u>	-ig  richt <u>i</u> g	st -  st <u>a</u> rk	sp -  sp <u>i</u> elen	j  j <u>a</u>	th  The <u>a</u> ter	

a  sa <u>g</u> en	a  ka <u>l</u> t	e  ge <u>b</u> en	e  de <u>n</u> ken	ei  fre <u>i</u>	w  W <u>e</u> lt	z  Z <u>u</u> g				
i  wi <u>r</u>	i  fi <u>n</u> den	ie  Lie <u>b</u> e		ch  i <u>ch</u>	ch  Bu <u>ch</u>	sch  schre <u>ib</u> en				
o  wo? <u>?</u>	o  Ko <u>p</u> f	u  du	u  Pu <u>n</u> kt	er  e <u>r</u>	er  wie <u>d</u> er	r  re <u>d</u> en	r  U <u>h</u> r	v  vo <u>r</u>	s  so <u>l</u> len	ß  gro <u>ß</u>
ü  T <u>ü</u> r	ü  fü <u>n</u> f	ö  schö <u>n</u>	ö  plö <u>t</u> zlich	ä  spä <u>t</u>	ä  lä <u>ch</u> eln	au  Ha <u>u</u> s	e u  De <u>u</u> t <u>s</u> chland	ä u  Mä <u>u</u> se		
-d  un <u>d</u>	-ig  richt <u>ig</u>	st -  sta <u>rk</u>	sp -  spie <u>l</u> en	j  ja	th  Thea <u>t</u> er					

My home! Year 8 German ARE 2 vocab. list

Wo wohnst du ? Ich wohne... In einem Haus in einer Wohnung in einem Wohnwagen auf dem Land in den Bergen an der Küste in der Stadt am Stadtrand in einem Dorf im Norden im Süden im Westen im Osten	Where do you live? I live... In a house In a flat In a caravan In the countryside In the mountains On the coast In a city/town In the suburbs In a village In the north In the south In the west In the east	Was hast du in deinem Haus ? Es gibt ... Es gibt keinen,keine,kein einen Garten einen Dachboden ein Büro eine Garage ein Wohnzimmer einen Eingang eine Küche ein Schlafzimmer ein Esszimmer ein Badezimmer eine Terrasse die Toiletten einen Balkon im ersten Stock im zweiten Stock im Erdgeschoss	What is there in your house? There is / are... There isn't... A garden An attic An office/study A garage A living room A hall A kitchen A bedroom A dining room A bathroom A terrace The toilets A balcony On the first floor On the second floor On the ground floor	Wo ist...? auf unter vor in hinter zwischen neben gegenüber In der Nähe	Where is...? on under in front of in behind between next to opposite to near to
Extending our sentences Opinion phrases Meiner Meinung nach Ich denke, dass Ich glaube, dass Ich finde Intensifiers wirklich sehr ziemlich ein bisschen Connectives weil or denn auch aber obwohl	Extending our sentences Opinion phrases In my opinion I think that I believe that I find Intensifiers Really Quite A little Connectives Because Also But However	Was hast du in deinem Schlafzimmer ? ein Bett eine Wand einen Schreibtisch einen Computer einen Kleiderschrank einen Teppich ein Regal eine Lampe eine Tür einen Stuhl ein Fenster eine Kommode die Poster	What is there in your bedroom? A bed A wall A desk A computer A wardrobe A carpet A shelf/shelves A lamp A door A chair A window A chest of drawers Some posters	Beschreib dein Dorf/ deine Stadt Es ist... groß klein historisch ruhig touristisch industriell kulturell wichtig lebendig/lebhaft laut (e) verschmutzt modern schön hässlich neu alt bequem Es ist kleiner als... Es ist weniger ... als... Ich bevorzuge... weil Es ist mehr/weniger...	Describe your village/town It's... big small historic peaceful appealing to tourists industrial cultural important lively noisy polluted modern pretty ugly new old comfortable It's smaller ... than... It's less ... than... I prefer... because it is It's more/less...

My Town! Year 8 German ARE 2 vocab. list

Was besuchst du?	What do you visit?
Ich besuche...	I visit...
Wir besuchen...	We visit...
Der Strand	The beach
Das Schwimmbad	The swimming pool
Das Eisstadion	The ice rink
Die Metzgerei	The butchers
Die Bäckerei	The bakery
Der Bahnhof	The train station
Der Busbahnhof	The bus station
Die Buchhandlung	The book shop
Die Konditorei	The cake shop
Die Post	The post office
Das Stadtzentrum	The town centre
Das Kino	The cinema
Das Museum	The museum
Das Theater	The theatre
Das Verkehrsamt	The tourist information office
Das Einkaufszentrum	The shopping centre
Das Sportszentrum	The leisure centre
Die Polizeiwache	The police station
Der Markt	The market
Der Supermarkt	The supermarket
Das Stadion	The stadium
Der Freizeitpark	The theme park
Das Krankenhaus	The hospital
Die Denkmäler	The monuments
Die Geschäfte	The shops
Das Cafe	The café
Das Restaurant	The restaurant

Year 8 German Knowledge Organiser 2

Where I live geographically, Places in town, Phrases that use infinitives.

Opinion starters:

Ich denke, dass = I think that

Ich glaube, dass = I believe that

Meiner Meinung nach = In my opinion

Für mich = For me

Ich mag = I like/Ich mag...nicht = I don't like

Ich gehe lieber = I prefer going

Ich sehe lieber = I prefer seeing

Ich finde = I find

Ich denke, dass Bristol historisch ist. - I think that Bristol is historic

Ich finde London ziemlich laut.=I find London quite loud

Ich bevorzuge Bath, weil Bath ruhiger als Liverpool ist – I prefer Bath because it is quieter than Liverpool.

Phrases that use **infinitives**.

An infinitive is the basic form of the verb. In English it starts with to_ to run, to jump, to swim.

In German, the verb ends in **-en** or **n**. The infinitive goes to the end of the sentence

e.g., I will eat – ich werde essen

Man kann =You can

Ich werde = I will

Ich muss = I must

These are followed by an infinitive.

Man kann in die Stadt gehen– You can go to the town

Ich werde in einem Restaurant essen– I am going to/will eat in a restaurant.

Ich muss einkaufen gehen= I must go shopping

Pronoun	werden – to become (need to form future tense)
I	ich werde
you	du wirst
he/she/it	er/sie/es wird
we	wir werden
you (pl)	ihr werdet/Sie werden (polite + pl)
they	sie werden

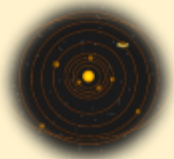


ins Einkaufszentrum gehen to go to the shopping centre
 radfahren to cycle
 mit meinen Freunden ausgehen to go out with friends
 ins Kino gehen to go to the cinema
 die Museen besuchen to visit museums
 einkaufen gehen to go shopping

um...zu + infinitive = in order to

Ich gehe ins Einkaufszentrum, um einkaufen zu gehen – I go to the shopping centre to go shopping.

Ich gehe zum Park, um Fußball zu spielen – I go to the park, in order to play football.

a  alto	e  elefante	i  idea	o  yo	u  universo	ll  libro llamar
ca  casa	co  comer	cu  cuerpo	ce  cerca	ci  cierto	z  zona
ga  ganar	go  gol	gu  preguntar	ge  gente	gi  imaginar	j  ojo
ñ  mano  español	v  celebrar  ver	rr  pero  perro	h  Shhhhh! hablar	porqu e  que qui  quiero	guerra  gui  gue guitarra

¿Te gusta....?
Do you like...?

OPINION	NOUN	JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Prefiero I prefer	 el pan (bread)	porque es because it is	muy very	sabroso / rico (tasty)
	 el pescado (fish)			delicioso (delicious)
	 el queso (cheese)			sano (healthy)
Me encanta(n) I love	 la mantequilla (butter)	porque son because they are	bastante quite	malsano (unhealthy)
	 la leche (milk)			terrible (awful)
Me gusta(n) I like	 el café (coffee)		un poco a bit	asqueroso (disgusting)
	 el té (tea)			picante (spicy)
No me gusta(n) I don't like	 la cola (Coke)		demasiado too	dulce (sweet)
	 el azúcar (sugar)			amargo (bitter)
	 el jamón (ham)			salado (salty)
Odio I hate	 el chocolate caliente (hot chocolate)			grasiento (greasy)
	 la manzana (apple)			bueno para la salud (good for your health)
En mi opinión In my opinion	 la carne (meat)			malo para la salud (bad for your health)
	 la mermelada (jam)			
Pienso que I think that	 el helado (ice-cream)			
	 las judías verdes (green beans)			
	 las verduras (vegetables)			
	 las patatas fritas (chips)			
	 las papas (crisps)			
	 las espinacas (spinach)			

Food and drink.
Year 8 Spanish
ARE 1 Vocab List

WHA Spanish
h

EN EL RESTAURANTE	IN THE RESTAURANT
¿Qué quieres comer?	What do you want to eat?
De primer plato	For the starter
De segundo plato	For the main
De postre	For dessert
Quisiera	I would like
Para mí	For me
Para beber	To drink
Para comer	To eat
Una ración de...	A portion of...
Camarero/a	Waiter/waitress
¿Tienes...?	Do you have...?
La cuenta, por favor	The bill, please



¿Cuánto cuesta?	How much?
diez	10
veinte	20
veintiuno	21
treinta	30
treinta y uno	31
cuarenta	40
cincuenta	50
sesenta	60
setenta	70
ochenta	80
noventa	90
cien	100
dos cientos	200
quinientos	500
Euros	Euros
Libras	Pounds



¿Cuándo comes?	When do you eat?
El desayuno	Breakfast
La comida	Lunch
La merienda	Snack
La cena	Evening meal/tea
Desayunar	To eat breakfast
Comer	To eat lunch
Merendar	To snack
Cenar	To eat dinner



EN EL MERCADO / SUPERMERCADO	IN THE MARKET / SUPERMARKET
¿Te gustaría...?	Would you like...?
Un paquete de	A packet of
Un litro de	A litre of
Un kilo de	A kilo of
Un medio kilo de	Half a kilo of
Una botella de	A bottle of



Verbs and the present tense in Spanish

The infinitive

When you look up a verb in the dictionary, you find its original, unchanged form which is called the **infinitive** (comer, beber, jugar, visitar, vivir, ir etc.). The infinitive ends in **-ar, -er or -ir**.

Forming the present tense in Spanish

Take off the last 2 letters of the infinitive (**-ar, -er or -ir**) and add the following endings depending on the pronoun:

*Important! There are some key irregulars to learn which don't follow this pattern – **ir** (as shown here), **ser**, **tener** and **hacer** are really important!

	AR verb	ER verb	IR verb
yo (I)	-o	-o	-o
tu (you)	-as	-es	-es
él/ella (he/she)	-a	-e	-e
nosotros/as (we)	-amos	-emos	-imos
vosotros/as (you all)	-áis	-éis	-ís
ellos/ellas (they)	-an	-en	-en

Comparisons

más - more
menos - less

La cola es **más** deliciosa que el café
El café es **menos** delicioso que la cola

Superlative

El /la más- the most
El /la menos – the least

El queso es **el más** rico
La carne es **la menos** sabrosa

Words come before the noun	Masculine (sing.)	Feminine (sing.)	Masculine plural	feminine plural
A / some	un	una	unos	unas

Adjective agreement.

Remember adjectives have to agree with the noun they are describing. Normally we change the **-o** to an **-a** to make it feminine unless there is already an **-a** then it stays the same and we add an **-s** to make it plural.

El helado es **delicioso** – La pizza es **deliciosa**

El pan es **asqueroso** – La pasta es **asquerosa**

Other rules :

- **Adjectives which end in – e stay the same when feminine (just add –s to make it plural)**

e.g. El café es terrible – La leche es terrible

- **Adjectives which end in –or change to –ora when feminine**

e.g. El deporte es agotador – La natación es agotadora

- **Adjectives which end in –l (or other consonants) stay the same whe feminine**

e.g. El helado es genial – La mantequilla es genial

Opinion phrases help to make your work more interesting – have a look at the list on your vocabulary list. Try to use a range of different ones in your work e.g. Me gusta (I like)/ Pienso que (I think that)/ En mi opinión (in my opinion).

My home! Spanish Year 8 - 8.6

¿Dónde vives? Vivo ... en una casa en un apartamento en el campo en las montañas en la costa en la ciudad en las afueras en un pueblo en el norte en el sur en el oeste en el este	Where do you live? I live In a house In a flat In the countryside In the mountains On the coast In the city/town In the suburbs In a village In the north In the south In the west In the east	My home! Spanish Year 8 - 8.6		¿Qué hay en tu ciudad? En mi ciudad hay... la playa la piscina la pista de hielo la biblioteca la carnicería la comisaría la mezquita la iglesia la librería el centro el cine el museo el teatro el centro comercial el polideportivo el mercado el supermercado el estadio el parque de atracciones el hospital el puerto los monumentos las tiendas los cafés los restaurantes la oficina de turismo	What is there in your town? In my city there is... The beach The swimming pool The ice rink The library The butchers The police station The mosque The church The book shop The town centre The cinema The museum The theatre The shopping centre The leisure centre The market The supermarket The stadium The theme park The hospital The port The monuments The shops The cafés The restaurants The tourist information office
¿Dónde está? en debajo de delante de detrás (de) entre al lado de enfrente cerca de	Where is...? On/in under in front of behind between next to opposite near to	¿Qué hay en tu casa? Hay.... No hay... Un jardín Un garaje Un salón Un pasillo Un dormitorio Un comedor Un cuarto de baño Una cocina Una terraza Una oficina/un despacho Los baños El dormitorio de mis padres En la primera planta En la planta baja Arriba	What is there in your house? There is / are... There isn't... A garden A garage A living room A hall A bedroom A dining room A bathroom A kitchen A terrace An office/study Toilets My parents' bedroom On the first floor On the ground floor Upstairs		
¿Qué se puede hacer? ¿Qué vas a hacer? Se puede... Voy a ... ir de paseo visitar museos comer en un restaurante descansar en la playa quedar con amigos	What can you do? What are you going to do? You can... I am going to... Go for a walk Visit museums Eat in a restaurant Rest on the beach Hang out with friends	¿Qué hay en tu dormitorio? Una cama Un escritorio Un ordenador Un armario Un estante Una lámpara Una mesa Una puerta Una silla Una televisión Una ventana Una cómoda Una moqueta Unos pósteres	What is there in your bedroom? A bed A desk A computer A wardrobe A shelf A lamp A table A door A chair A television A window A chest of drawers A carpet Some posters		

Opinion starters:

Pienso que	I think that
Creo que	I believe that
En mi opinión	In my opinion
Para mí	For me
Me parece que	It seems to me
Encuentro	I find

Pienso que Bristol es histórico - I think that Bristol is historic
Encuentro Londres bastante industrial – I find London quite industrial.

Prefiero Bath porque es menos turístico que Liverpool – I prefer Bath because it is less touristy than Liverpool.

Phrases that use **infinitives**.

An infinitive is the basic form of the verb. In English it starts with to_ to run, to jump, to swim.

In Spanish the verb ends in –ar, -er , -ir.

e.g. I like to run – Me gusta correr.

Se puede	– One can	} These are followed by an infinitive.
Voy a	- I am going to	
Me gusta	- I like	

Se puede ir al centro – One can go to the city centre.

Voy a comer en un restaurante – I am going to eat in a restaurant.

Me gusta jugar al fútbol en el parque - I like to play football in the park.

	Ir – to go
I	Voy – I go / I am going
you	Vas – You go / you are going
he/she/it	Va – he goes / he is going
we	Vamos – we go / we are going
you (pl)	Vais – you (pl) go / are going
they	Van – they go / are going



Hay (there is) and no hay (there is not) – these phrases are very important to allow us to say what is in our town or city.

Remember! When using no hay there is no un/una

e.g. **Hay un** parque but **no hay** parque

It is important to use the correct **article** in front of a noun. This will depend on if we want to say 'a' (indefinite article) or 'the' (definite article), and also in Spanish if the noun is **masculine, feminine, singular or plural**.

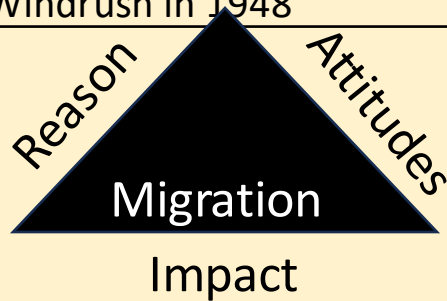
Articles	A/some	The
Masculine	Un	El
Feminine	Una	La
Masc Plural	Unos	Los
Fem Plurl	Unas	Las

Key Vocabulary

Migration	The movement of a person or people from one country to another place or location
Conquer	To take control of another country by force
Emigration	To leave your own country and settle in another country
Huguenot	French protestant who fled France between 1670-1710
Racism	Discrimination directly against someone of different race/skin colour
Refugee	A person who is forced to flee their home country and seek safety in another country
Windrush	People who emigrated from the Caribbean to Britain on the Empire Windrush in 1948

Reasons for Migration

Who and When	Why?
First people 30,000BC	Wandered across the land when Britain was connected to Europe
Romans 23AD-430AD 	Conquer new land extend their empire to obtain more land and goods
Normans 1066 	William of Normandy invaded declaring he had a claim to the throne
Huguenots 1670-1710 	Persecuted by the Catholics in France, the first refugees to come to Britain
Eastern European Jews 1880s 	A person who is forced to flee their home country and seek safety in another country
Windrush 1940 	After WWI Britain encouraged immigration from the Caribbean to help rebuild Britain



Attitudes migrants have faced

**Romans**

The Romans faced several rebellions. e.g. Boudicca, some areas were never really conquered. Many tribes worked with them as shown by the Hallaton Helmet.

**Huguenots**

Charles II gave them the right to become English citizens. Many were skilled and successful; some were supported by English communities. Others faced prejudice and were mocked for their clothing.

**Normans**

William created the Domesday Book and taxed people heavily, which they resented. Many Normans took over Anglo-Saxons jobs and people resented this.

**Jews**

Areas such as London and Manchester developed large Jewish communities. Although there was some support, many Jewish people experienced Anti-Semitism.

**Windrush Generation**

Although they had been invited to fill a skills shortage, many experienced racism on arrival. Some struggled to find accommodation and many skilled workers worked in low paid, unskilled jobs.

Impact: Migration has had on Great Britain



Social



Roads



Language



Buildings



religion



writing



Churches
& surnames



Castles,



Language



Food



Forenames



Economy



Religion



Industry



Inventions



Names



Many people



Food,



many people



Clothing



Businesses



Trade Unions



NHS



Economy



Carnival



Racism



Bristol Bus boycott



Reggae



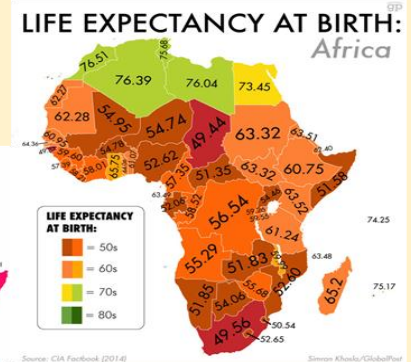
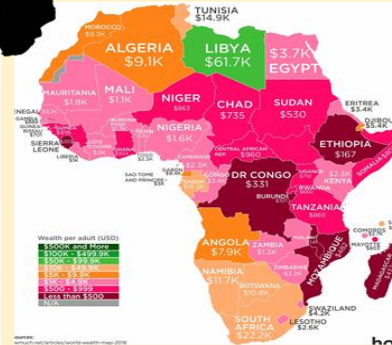
Food



Geography

Is everything we know about Africa wrong?

Keywords	Definition
Development	Positive change over time
Development indicators	A numerical figure that identifies a level of development e.g. Gross National Income
Human development index - HDI	HDI is a figure between 0-1 that designates the development of country accounting for life expectancy, levels of education and GNI
Gross National Income - GNI	GNI is the total amount of money earned by a nation's people and businesses
Birth/death rate	Number of people born or dying per 1000 of population
Infant mortality	Number of children dying before the age of 5
Life expectancy	Average age someone is expected to live
Literacy rate	Number of people who can read and write
Quality of life	The general well being of people, which includes income, health, education employment, happiness and environment
Standard of living	The degree of wealth and owned possessions available to a person or community
Misconceptions	A view or opinion that is incorrect because based on faulty thinking or understanding.
Sustainable development	Progress over time that is conducted without the over use of natural resources, leading to environmental damage



Eko Atlantic in Lagos, Nigeria

To defend against the coastal erosion and flooding, Lagos is being surrounded by the "Great Wall of Lagos", a sea defence barrier made of 100,000 five-ton concrete blocks.

Eko Atlantic will be a "sustainable city, clean and energy efficient with minimal carbon emissions," offering jobs, prosperity and new land for Nigerians.

Quick facts:

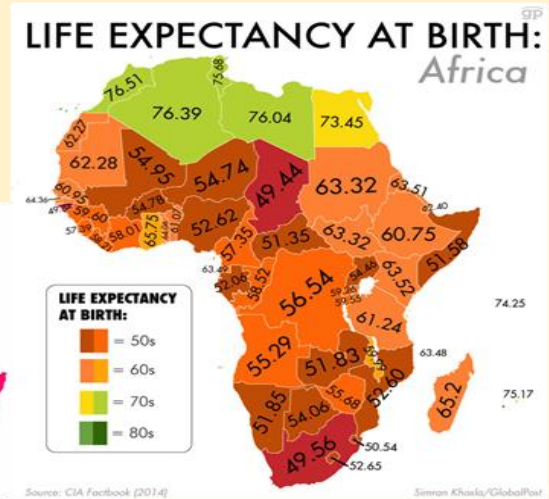
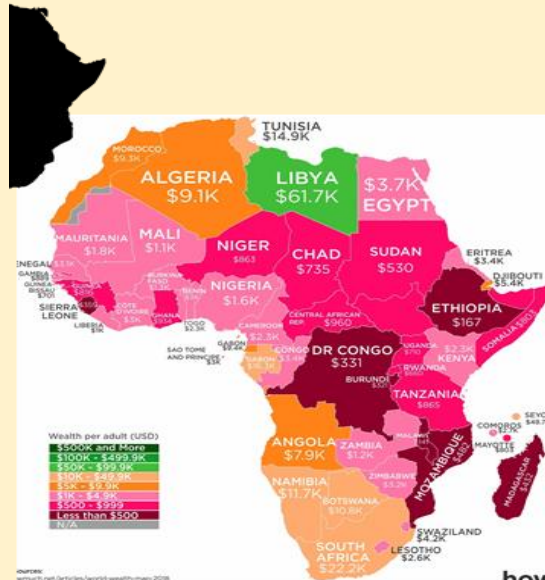
Africa is one of the world's seven continents and contains 54 countries.

Some African economies are the fastest growing in the world...with Kenya and Rwanda outperforming many countries in terms of % GNI growth.

Over 400 million people in Africa live in extreme poverty.

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Over 400 million people in Africa live in extreme poverty.

Are Africa's landscapes more than just 'The Lion King'?

Keywords	Definition
Atmospheric circulation	The movement of air around the earth to maintain and balance the temperature.
Biome	An area with similar physical characteristics, climate, plants and animals e.g. rainforest
Climate graph	Climate graphs shows annual precipitation and temperatures typically experienced in a particular location
Tourism	The visiting of place that is not your home for a leisure activities and infrastructure involved in this
Multiplier Effect	Positive overall impact of economic change in a location
Ecotourism	Tourism directed towards unique environments, often threatened, natural environments, intended to support conservation efforts and observe wildlife.

Savanna Characteristics

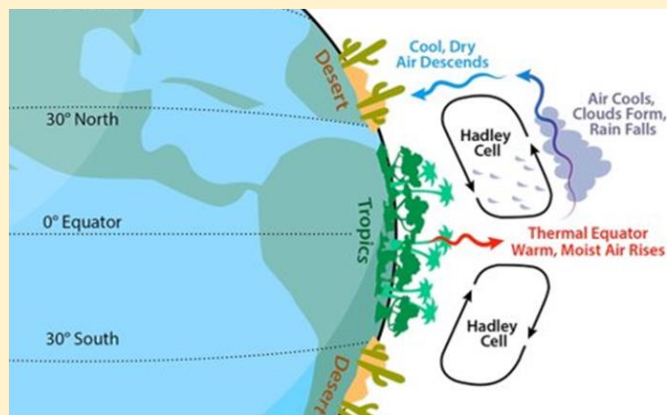
The African Savanna is a tropical grassland making Up **65% of Africa**, covering **27 of its countries!**



It has **warm temperatures year-round with its highest seasonal rainfall in the summer.**

It is characterised by **grasses and small, dispersed trees** which allow sunlight to reach the ground.

It is found in between the Tropical Rainforest and Hot Desert.



Hadley Cell

The Hadley cell is a large-scale atmospheric convection cell in which **air rises (low pressure)** at the equator and **sinks (high pressure)** at medium latitudes, typically about 30° north or south.



Botswana is a country in the **south of Africa**, bordering South Africa, Namibia, Zimbabwe, Zambia and Angola.

The tropic of Capricorn goes through the country, meaning the biomes commonly found here are **deserts** and **savannas**. Popular tourist attractions in Botswana include the **Central Kalahari Game Reserve**, **Salt Pans** **Okavango Delta**.



ॐ What do the Dharmic faiths believe? Hinduism Knowledge Organiser ॐ

NEED TO KNOW WORDS

Polytheist	Belief in many gods
Monotheist	Belief in one god
Deities	Gods
Brahman	Supreme god in Hinduism
Dharma	duty – fulfilling these duties are the first step towards breaking the samsara cycle.
Reincarnation	being ‘reborn
Moksha	The spiritual aim for Hindus is to achieve freedom from the samsara cycle
Mandir	Community temple
Karma	The belief that actions have consequences
Samsara	The cycle of birth and rebirth.
Trimurti	— 3 main aspects of Brahman (Brahma / Vishnu / Shiva)





ॐ What do the Dharmic faiths believe? Hinduism Knowledge Organiser ॐ

Hinduism overview:

Hinduism is over 4,000 years old, making it one of the world's oldest religions. It is made up of a variety of different religious beliefs and practices. It originated near the Indus River in India. The name 'Hindu' comes from the word Indus

Hindu nature of God.

Hindus believe in one God (Brahman) and they believe he comes in many forms. Hindus believe that there are three gods called the Trimurti who display the 3 aspects of the universal supreme God, Brahman.

Where do Hindus worship?

Hindus worship in a temple called a Mandir. Mandirs vary in size from small village shrines to large buildings, surrounded by walls.

People can also visit the Mandir at any time to pray and participate in the bhajans (religious songs).

Hindus also worship at home and often have a special room with a shrine to particular gods.

What are Hinduism's holy books?

Hinduism does not have a single holy book, but many ancient texts and scriptures.

The Vedas - a collection of hymns praising the Vedic gods. Veda means 'knowledge'.

The Ramayana - long epic poems about Rama and Sita.

The Mahabharata - which includes the Bhagavad Gita.

The Puranas - a collection of stories about the different incarnations and the lives of saints..



What do the Dharmic faiths believe?

Hinduism Knowledge Organiser



Hindu belief in The Trimurti: Brahman takes many forms. Especially three forms called the Trimurti:	
Brahma	is the creator of the world and all creatures. He is usually shown with four heads.
Vishnu	is the preserver of the world. His role is to return to the earth in troubled times and restore the balance of good and evil. He has blue skin and four arms.
Shiva	is the destroyer of the universe. Shiva destroys the universe in order to re-create it. Shiva has blue skin, a third eye and carries a trident.

Key Words

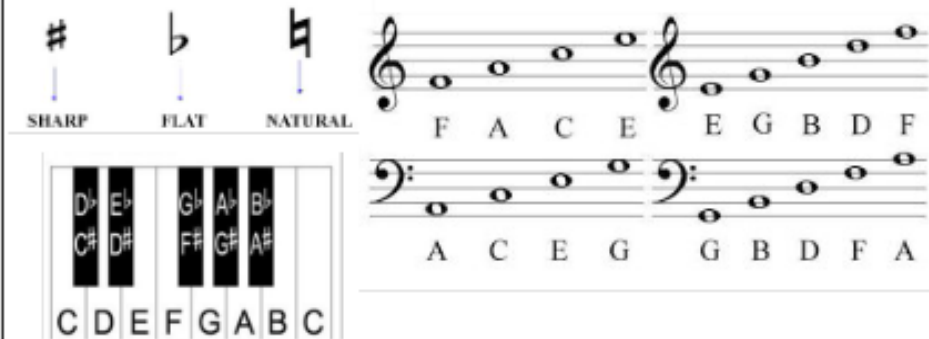
Flat
Sharp
Natural
Chord
Major
Blues Scale
Improvisation
Syncopation
Swing Rhythm
Triplet
Walking Bass

Year 8 Music Terms 1 & 2 – How does music narrate the struggle for equality?

Musical Elements

Dynamics	(volume)
Rhythm	(duration of notes)
Tempo	(speed)
Context	(background info)
Structure	(sections)
Melody	(organisation of pitches)
Instrumentation	(instruments & voices)
Texture	(layers)
Harmony	(chords & key)

Reading Music



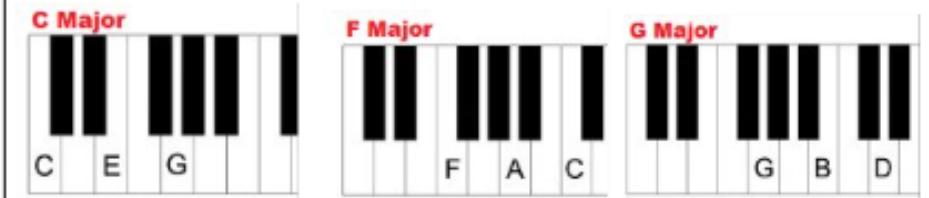
SHARP FLAT NATURAL

F A C E E G B D F

A C E G G B D F A

C D E F G A B C

Chords



C Major: C, E, G

F Major: F, A, C

G Major: G, B, D

Note Durations

	Semibreve (4 beats)
	Minim (2 beats)
	Crotchet (1 beat)
	Quaver (½ beat)
	Semi-Quaver (¼ beat)

12-Bar Blues

C	C	C	C
F	F	C	C
G	F	C	C

Harmony

Melody

C blues scale



C E^b F G^b G B^b C

Content: In this project you will develop knowledge- of mythological creatures.

Understand- What inspired artists to create their work and how to write about the work

Develop skills- drawing, shading, painting, using materials to create 3 dimensional shapes and showing the influence of other artists in your own work and presentation

Outcome- An original creature inspired by one or some of the characters you have studied.

Keywords:

Mythological-something that is fictitious (made up) or imaginary. Often found in mythology and fables.

Typography - arranging letters and text in a way that makes the copy legible, clear, and visually appealing to the reader.

Surrealism-is an art style that focuses on imagination and dream like images.

Anthropomorphism- is giving human characteristics to animals or objects

Salvador Dali (on the right): Was one of the leading artists of the Surrealist Art movement. He described his work as hand painted dream photographs.



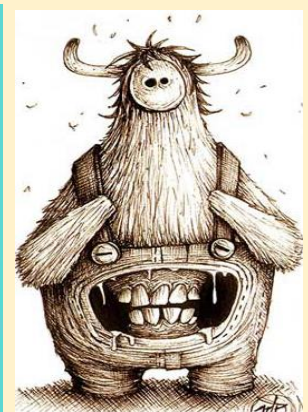
Tim Burton



Buff Monster



Paride Bertolin





Developing Vocal Skills

Knowledge and understanding of how to use the voice to achieve a variety of effects, characters and geographical places.

To develop the ability to control their voice in performance and in everyday life

- To empathise with characters different from themselves
- To challenge self-consciousness by stepping out of your comfort zone



Script- Written dialogue



Audience- Spectators



Duologue- Two people speaking



Improvisation- Unscripted work

Pitch	This is how high or low a performer makes their voice when playing different roles. Pitch can show the age, gender and mood of the character.
Accent	This informs the audience what country you are from e.g. England.
Diction	This is how clearly you speak using enunciation and pronunciation.
Volume	This is how loud you speak, this could be from a stage whisper to shouting.
Emphasis	This is when a performer puts extra focus on a word or words within a sentence to make a point, this can be done by elongating, speaking louder or changing the tone of your voice.
Intonation	This is varying your voice so that it goes up and down, this helps the fluency of your speech and helps the audience stay engaged with your dialogue.
Projection	This is speaking with strength. Opening your mouth wider creates a bigger projection.
Dialect	This is similar to speaking with an accent except it is more specific i.e. it tells the audience what region you are from e.g. London.
Tone	This is showing the mood that your character is feeling e.g. happy, sad, excited, frustrated etc.
Received Pronunciation	This is when you speak with a posh accent, taking care to enunciate each letter in every word. Performers use the front of their mouths when they are delivering their dialogue to give a nasal sound.
Cockney	This is speaking with an East End (London) dialect.
Enunciation	This is how well a performer speaks e.g. good enunciation means sounding out every letter in every word.
Pronunciation	This is the accent or mood you speak a line of dialogue with e.g. speaking English with a French accent.
Pace	This is how fast or slow a performer speaks. A character who is tired or bored may speak with a slow pace compared with a happy, excited character who will speak with a fast pace.

Knowledge Organiser: Understanding computers *Discover how computers work*

Summary

Computers require input hardware, processing hardware and output hardware. The hardware that defines a computer is the **CPU** and **memory**. Without these a computer could not function. The CPU and memory work together to run programs.

CPU - executes programs using the **fetch-decode-execute cycle**.

Memory - stores program operations and data while a program is being executed. There are several types of memory, including: **registers**, **cache**, **RAM** and **virtual memory**.

Storage - stores programs and files long term, even when they are not in use. Devices such as hard drives, USB memory sticks or SD cards are used to store files such as photos, music and software applications long term.

An **input device** is any piece of computer hardware **used to provide data to a computer system**. Examples include: keyboard, mouse, scanner, digital camera and webcam.

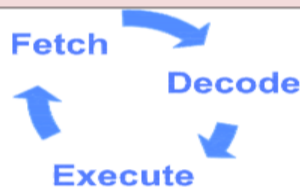
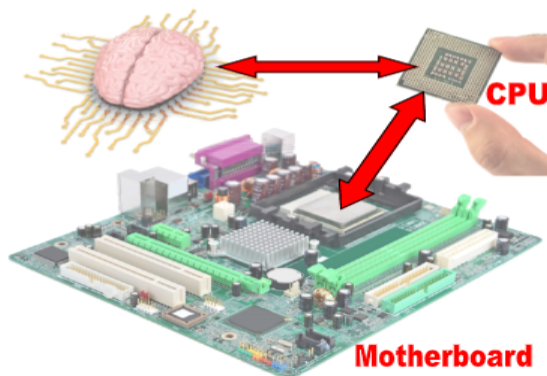
An **output device** is any piece of computer hardware used to communicate the results of data that has been processed.

Central Processing Unit

The **Central Processing Unit** or **CPU** is arguably the most important component of a computer.

You can think of the CPU as being like the brain in a human.

It is responsible for all of a computer's processing.



The Fetch – Decode – Execute cycle

The CPU operates by repeating three operations:

FETCH – causes the next instruction and any data involved to be fetched from main memory

DECODE – decodes the instruction to make sure it can be carried out

EXECUTE – carries out the instruction

Repeat...



Key Vocabulary

Clock speed	The speed of a computer CPU, measured in hertz.
Cache	A piece of temporary memory. It can refer to a part of the RAM, storage disk, CPU, or an area for storing web pages.
CPU	Central Processing Unit - the brains of the computer that processes program instructions. Also called a microprocessor .
Execute	To run a computer program.
GHz	Gigahertz. One billion hertz per second – one gigahertz. This is a measure of frequency and is used to describe bus speeds and CPU clock speeds.
Hardware	The physical parts of a computer system, e.g. a graphics card, hard disk drive and CD drive.
Motherboard	The circuit board inside a computer that houses the CPU, memory and connections to other devices.
RAM	Memory that is constantly being written to and read from. It does not retain its contents without a constant supply of power, i.e. when a computer is turned off, everything stored in its RAM is lost.
Registers	The section of high speed memory within the CPU that stores data to be processed.
Software	Software is the programs that run on a computer.
Virtual memory	A section of a computer storage drive which is temporarily used as RAM.

Binary Units

Remember the units used in the binary system.

1 byte =	8 bits
1 Kilobyte =	1024 bytes
1 Megabyte =	1024 Kilobytes
1 Gigabyte =	1024 Megabytes
1 Terabyte =	1024 Gigabytes

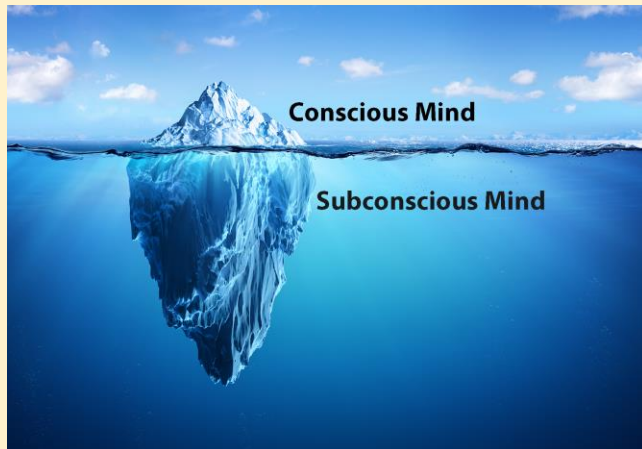
Year 8 Creatures and Characters Content: In this project you will develop knowledge- of mythological creatures. Understand-what inspired artists to create their work and how to write about the work Develop skills- drawing, shading, painting, using materials to create 3 dimensional shapes and showing the influence of other artists in your own work and presentation Outcome- An original creature inspired by one or some of the characters you have studied.

Key Words

Surreal
Dadaism
Manifesto
Subconscious
Psychoanalyst

Key People

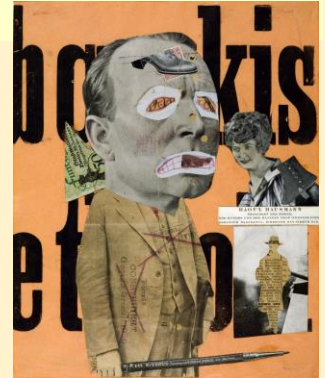
Sigmund Freud
Andre Breton
Salvador Dali
Max Ernst
Rene Magritte



Surrealism 1920 - 1940

Surrealism was a 20th century art movement that tried to represent the subconscious mind.

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.



Dada art poked fun at the seriousness of the modern world.

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. Dada was an art movement formed during the First World War in Zurich in negative reaction to the horrors and senselessness of the war. The art, poetry and performance produced by dada artists is often satirical and nonsensical in nature.

Surrealism images explored the **subconscious areas of the mind**. The artwork often made little sense as it was usually trying to represent a dream or random thoughts.