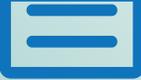


Year 8 Knowledge Organiser

Student's name:

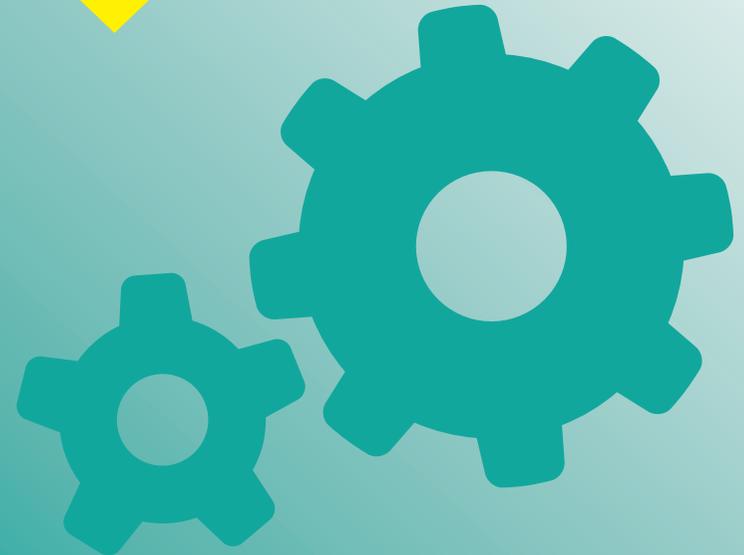




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Maths



<u>5. Word</u>	<u>Definition</u>
Integer	A whole number
Square Number	Formed by multiplying an integer by itself
Cube Number	Formed by multiplying an integer by itself three times
Square Root	A value that, when multiplied by itself, gives the number.
Multiple	A number in another numbers times table
Factor	A number that divides exactly into another number
Prime Factor	A factor that is a prime number.

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{3}{4}$	0.75	75%
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{10}$	0.1	10%
$\frac{1}{5}$	0.2	20%
$\frac{2}{5}$	0.4	40%
$\frac{3}{5}$	0.6	60%
$\frac{4}{5}$	0.8	80%



Transformation	Instructions	Transformation	Instructions
<p>Drawing a Reflection</p>	<p>Reflection:</p> <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc; margin: 10px 0;"> <p>Reflect shape A in the line $X = -1$</p> <p>Label your image B</p> </div> <p>Draw your reflection line</p> <p>Use tracing paper and mark the line on it!</p> <p>Copy the mirror image</p> <p>ALWAYS LABEL YOUR ANSWER</p>	<p>Enlarging a shape</p>	<p>Enlargement: Increasing/Decreasing a shape in size proportionally.</p> <p>Mark your centre point</p> <p>Count along and multiply as necessary</p> <p>Shape A has been enlarged by a scale factor of 2 from the centre point</p>
<p>Translating a shape</p> <p>Translate shape A using the column vector shown</p> <p>④ $\begin{pmatrix} -3 \\ -6 \end{pmatrix}$</p> <p>Label your image B</p>	<p>Translation: The shape's journey.</p> <p>Move the shape exactly to another position</p> <p>The top number is moving left (-) or right (+)</p> <p>The bottom number is moving down (-) or up (+)</p> <div style="margin-top: 10px;"> <p>$\begin{pmatrix} -3 \\ -6 \end{pmatrix}$ Move 3 to the left</p> <p> Move 6 down</p> </div>	<p>Rotating a shape</p>	<p>Rotation: Turning a shape around either clockwise or anti-clockwise.</p> <p>Trace the shape.</p>

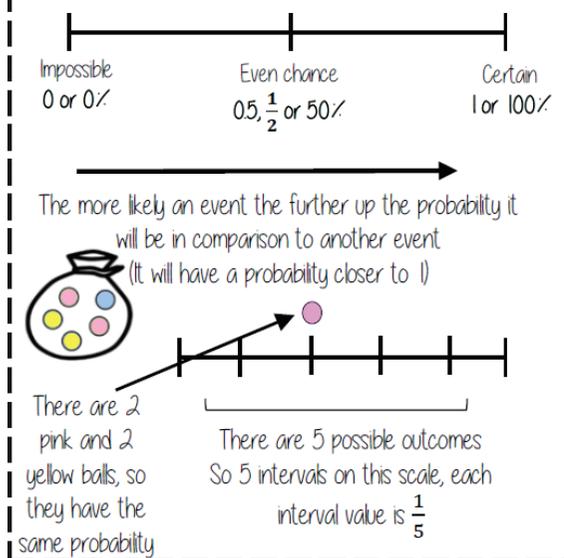
Important vocabulary	
Column Vector	Used to describe the movement of a shape (a translation).
Mirror Line	The line which you are reflecting from
Centre of Rotation	The point which you are rotating your shape from.
Scale Factor	This is the number that the lengths have been multiplied by. Remember a shape can get smaller too if it is enlarged.
Vertex	A corner of a shape
Centre of enlargement	The point where all the lengths are enlarged from
Clockwise	Important in rotations. This is the direction the clock goes in. North to East to South to West back to North
Anti-Clockwise	Important in rotations. This is the opposite direction the clock goes in. North to West to South to East to North



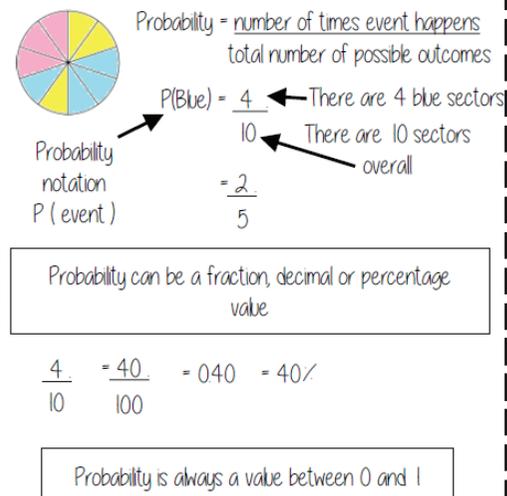
Probability

Uncertainty	Where there is an unknown outcome, sometimes called chance
event	Some defined occasion e.g. selecting a card randomly
outcome	What happened when an event occurred e.g. a card was drawn, it was the 9 of diamonds
Equally likely	When outcomes have the same chance e.g. rolling a fair dice, when you could get any number side be facing up or flipping a coin where you could get heads or tails
Independent outcome	When one event is not connected to another you have independent outcomes e.g. when you roll a dice, each time you have the same chance, it does not change based on previous outcomes.

The probability scale



Probability of a single event





English



Quote Explosion – Example

AO1: knowledge of character & plot

- Dr Frankenstein explaining his inspiration to Clerval
- Implies a desire for control

“The power that can do that is the power of life and death.”

AO2: writer’s methods (language and structure)

- “power” – noun – hints at a desire to have the ability to control life. Could also imply that he feels that his intelligence gives him the right to control life.

AO3: Historical Context

- The power to control “life and death” was historically a thing reserved for God and nature – this shows Dr Frankenstein attempting to overthrow nature’s power.

What/How/Why

The three key questions in English:

What is the writer doing?

- In this extract, the writer presents...

How is the writer doing this?

- This is shown through the quote “_____”
- This quote suggests...
- The word “_____” implies...

Why is the writer doing this?

- Shelley does this to represent...
- This could link to...
- This creates an impression of...

Key Vocabulary

Suspicion	A feeling of cautious distrust in someone or something
Evolution	The gradual development of something
Advancement	A development or improvement of a concept or idea
Exploration	The action of exploring an unfamiliar area
Corruption	Dishonest or fraudulent misuse of power

Historical Context

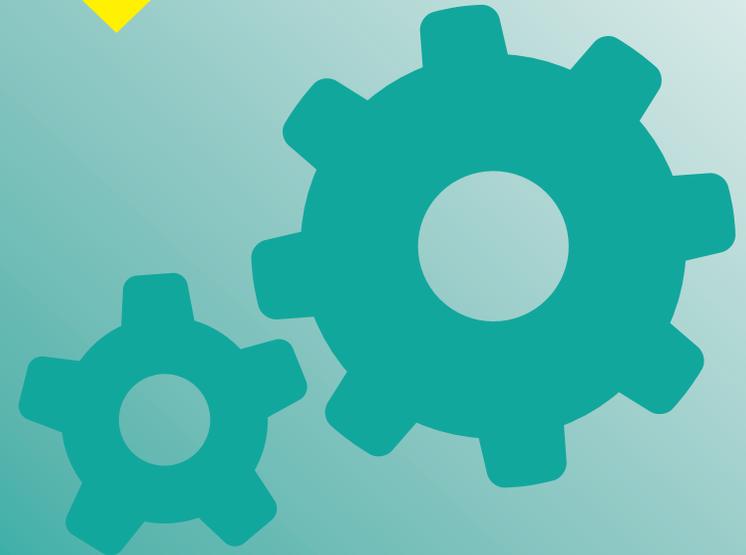
Science vs Religion

Originally written in the late 1700s, Frankenstein plays on the fears of a society scared of the rapid scientific progress of the time.

People were scared of the unknown – they didn’t like the idea that, in an extremely religious society, a person could ‘play God’.



Subject – Verb – Object			
Sentences in English generally follow a set order – subject → verb → object			
Subject: The person or thing (noun/noun phrase) which is carrying out the verb	Verb: What the subject does	Object: The person/thing (noun/noun phrase) being acted upon	
Frankenstein	flicked	the switch.	
The Monster	spoke	to Agathe	
All sentences must have a subject and a verb , but not all sentences need an object – this is determined by the type of verb the sentence has			
Transitive Verbs (verbs that require an object)		Intransitive Verbs (verbs that don't require an object)	
<ul style="list-style-type: none"> I made a cake. She sent a letter. They took the last slice. 		<ul style="list-style-type: none"> It rained. I walked. They sang. 	
Word Classes		Clauses	Homophones
Noun	Identifies a person, place or thing	Main Clause Sentence that makes sense on its own <i>Frankenstein flicked the switch</i> Embedded Clause A clause inserted after the subject and before the verb <i>Frankenstein, the crazed doctor, flicked the switch.</i>	<u>There</u> He is stood over there . <u>They're</u> They're best friends. <u>Their</u> It is their favourite TV show.
Verb	Describes an action		
Adjective	Describes a noun		
Adverb	Describes the way a verb is carried out		
Pronoun	Replaces a noun		
Preposition	Expresses relation between words		
Conjunction	Connects phrases, clauses and sentences		
Determiner	Introduces a noun		



Science

Science: 8c- Types of Respiration



All living cells **respire** to release energy. Organisms need energy for everything they do (for example, making new substances, moving).

Aerobic respiration is a series of **chemical reactions** that can be summarised as:

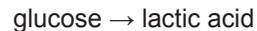


Energy is released (but is not a chemical substance and so is not shown in the word equation).

Carbon dioxide can be detected using:

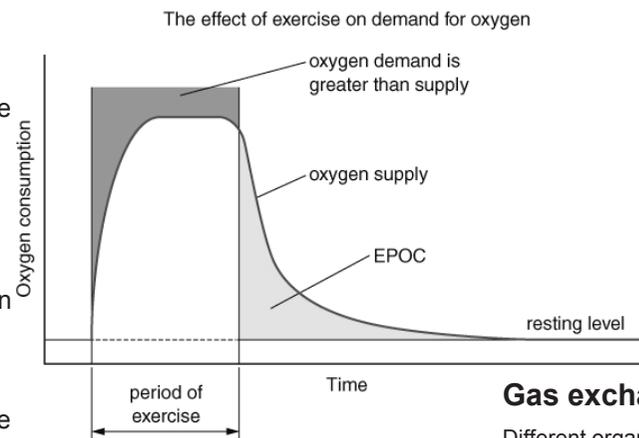
- **limewater** (which it turns cloudy)
- an **indicator** (such as hydrogen carbonate) because it is acidic.

Anaerobic respiration does not require oxygen. In humans it is used to release energy from glucose when more energy is needed than can be supplied by aerobic respiration (for example, during strenuous exercise).



Anaerobic respiration causes muscles to tire quickly and so cannot be used for extended periods. A lot of the lactic acid travels from the muscles to the liver, where it is converted back to glucose. Anaerobic respiration releases less energy than aerobic respiration.

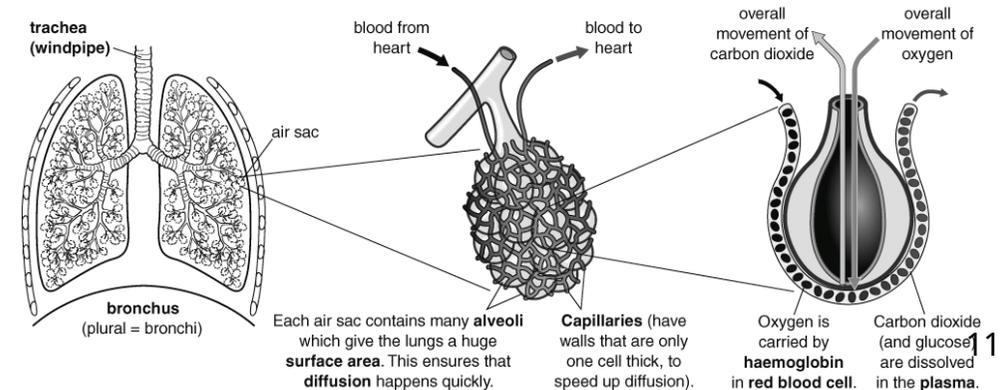
After strenuous exercise, the body needs extra oxygen. This **excess post-exercise oxygen consumption (EPOC)** (or 'oxygen debt') replaces oxygen lost from oxygen stores (in the blood and in muscles) and provides oxygen for increased levels of aerobic respiration (for example, to provide energy for removing lactic acid, for faster breathing, for faster heart rate).



Gas exchange

Different organisms use different organs for **gas exchange** (swapping one gas for another):

- **gills** (e.g. fish)
- **skin** (e.g. frogs)
- **stomata** in leaves (plants)
- **lungs**.

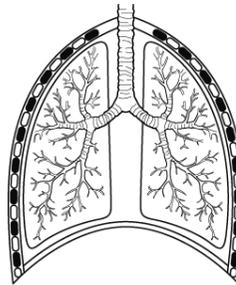
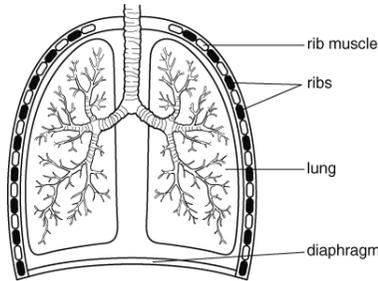




Ventilation and breathing

When you exercise, your **breathing rate** (number of breaths in one minute) and your **pulse rate** (number of times your heart beats in one minute) increase. This is because your cells need more oxygen and glucose for respiration.

Breathing is the movement of muscles in the **diaphragm** and attached to the ribs. These movements change the volume of the chest.



Breathing in (**inhalation**):

- Diaphragm contracts and moves downwards.
- Rib muscles contract and lift ribs up and outwards.
- Volume of the chest increases.
- Lungs expand.
- Pressure in lungs is reduced.
- Pressure outside is now higher than inside the lungs, so air flows into the lungs.

Breathing in (**exhalation**):

- Diaphragm relaxes and moves upwards.
- Rib muscles relax and move ribs down and inwards.
- Volume of the chest decreases.
- Lungs get smaller.
- Pressure in lungs is increased.
- Pressure inside the lungs is now higher than outside, so air flows out of the lungs.

Breathing **ventilates** the lungs. **Ventilation** is the movement of air into and out of the lungs.

Smoking

The chemicals in cigarette smoke are harmful.

Found in cigarette smoke:	Harm it causes:
nicotine	makes arteries narrower, causes heart disease
tar	can cause cancer, coats lungs reducing surface area, can cause alveoli to break apart (emphysema)
carbon monoxide	stops red blood cells carrying so much oxygen
high temperature of smoke	stops cilia working so lungs are not cleaned and mucus collects

Means, estimates and ranges

range = highest value – lowest value (with smaller ranges you can be more certain of your results)

$$\text{mean} = \frac{\text{total of all values}}{\text{number of values}}$$

Mean can be used to **estimate** a true value from repeated readings.



The physical properties of metals

Metals	Non-metals
good conductors of heat and electricity	poor conductors of heat and electricity
shiny	dull
solids with a high melting point (except for mercury)	most are low melting point solids or gases
flexible and malleable	brittle (break easily instead of bending)

The chemical properties of metals

The **chemical properties** of metals refers to their reactions with other substances.

For example, metals can react with many non-metals:

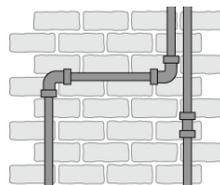
e.g. calcium + chlorine → calcium chloride

(Note: When naming a compound the ending of the non-metal is changed to **_ide**)

Metals can also react with air (oxygen), water and acids. Some metals react very quickly; they are **reactive**. Calcium is a reactive metal. Other metals do not react quickly; they are **unreactive**. Gold is a very unreactive metal.

Uses of metals

Metals have many **uses** depending on their different **properties**. For example, copper is used in electrical wires as it is flexible and a good conductor of electricity. It is also used for roof sheets as it is malleable and doesn't react quickly with water.



Metals as catalysts

Some metals act as **catalysts**. These are substances that speed up chemical reactions without being used up themselves. Catalysts have many uses, for example, platinum is used in catalytic converters in cars.

Corrosion and oxidation of metals

The reaction of metals with oxygen forms **metal oxides**:



e.g. **word equation**: calcium + oxygen → calcium oxide

This is called an **oxidation** or **corrosion** reaction.

Some metals like sodium react quickly with water and oxidise immediately when scratched. Other metals do not react easily, for example silver changes colour very slowly as it reacts with oxygen.

Rusting

The corrosion of **iron** is called **rusting**. It destroys iron and steel structures because **rust** is weak and crumbly. Water and oxygen must be present for iron to rust.

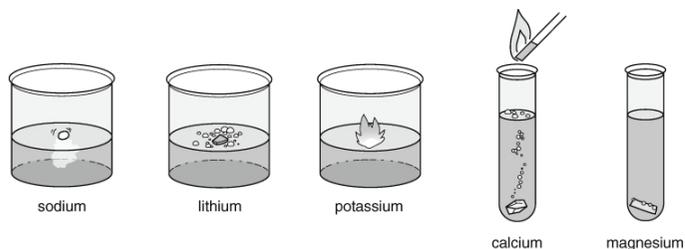


Coating the iron with paint, plastic, etc. acts as a barrier to oxygen and water and stops iron rusting.



Metals and water

Some metals can react with cold water.



All the metals that react with water form a metal hydroxide (an alkaline solution) and hydrogen gas.



The test for hydrogen gas is that it burns with a 'squeaky pop'.

Again, the equations can be written using words or symbols:

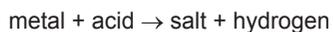


Metals and acids

The metals that react with water react very quickly with acids.

Some metals that don't react with water do react with acids.

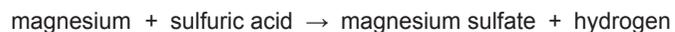
When metals react with acids, they produce hydrogen and a salt.



The name of the salt formed depends on the name of the acid:

- hydrochloric acid → chlorides
- sulfuric acid → sulfates
- nitric acid → nitrates

Again, the equations can be written using words or symbols:



Reactivity series

The reactions of metals with oxygen, water and acids allows us to put the metals in order of reactivity:

Potassium	D e c r e a s i n g r e a c t i v i t y
Sodium	
Lithium	
Calcium	
Magnesium	
Aluminium	
Zinc	
Iron	
Tin	
Lead	
Copper	
Mercury	
Silver	
Gold	

The reactivity of metals can be linked to their uses.

For example, metals used for building need to have a low reactivity, otherwise they will corrode away.

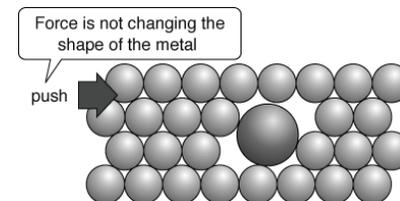
Alloys

Alloys are mixtures of metals with one or more other elements. Alloys have different properties from the pure metal and so can be more useful.

For example, steel, an alloy of iron, is stronger and does not rust as quickly.

Pure metals have a fixed, precise melting point where as alloys have a lower melting point and melt over a range of temperatures. Melting points can therefore be used to identify pure metals.

Alloys are usually also harder than pure metals because the different sized atoms disrupt the regular structure making it harder for the layers of atoms to slip over each other.





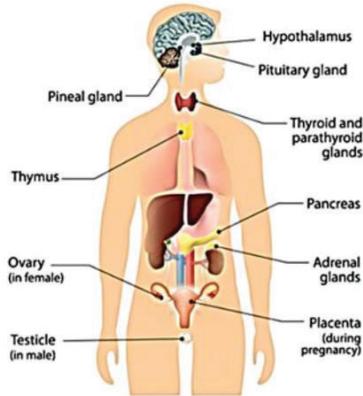
SB7: Hormones

Lesson sequence

1. Hormones
2. Thyroxine and adrenalin
3. The menstrual cycle
4. Hormones and the menstrual cycle
5. Contraception and fertility treatment
6. Controlling blood glucose
7. Diabetes

1. Hormones

Hormone	A chemical messenger that changes the way a part of the body works.
Important hormones	Insulin, glucagon, adrenalin, oestrogen, progesterone, testosterone, thyroxine, LH, FSH, ACTH, growth hormone.
Endocrine gland	Parts of the body that produce hormones
Important endocrine glands	Pituitary gland, thyroid gland, pancreas, adrenal glands, ovaries and testes.
Target organ	The part of the body affected by a hormone.
Important hormones	Insulin, glucagon, adrenalin, oestrogen, progesterone, testosterone, thyroxine, LH, FSH, ACTH, growth hormone.
Sex hormones	Women: oestrogen and progesterone Men: testosterone



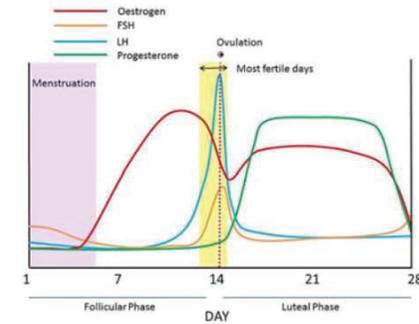
2. Thyroxine and adrenaline (HT)

Metabolic rate	The rate at which the body uses the energy stored in food.
Thyroxine	Role: To control your metabolic rate. Endocrine gland: Thyroid gland Target organ: Most of the body
Negative feedback	The way the body responds to high levels of something by bringing them down, and low levels by bringing them up.
Negative feedback and the metabolic rate	1) Low levels of thyroxine stimulates production of TRH in hypothalamus 2) This causes the release of TSH from the pituitary gland 3) TSH causes the thyroid to produce thyroxine 4) Normal levels of thyroxine inhibits the release of TRH and the production of TSH

Adrenaline **Role:** To prepare the body for fight or flight
Endocrine gland: Adrenal glands
Target organ: Heart (beats faster and stronger), blood vessels going to muscles (get wider), blood vessels going to organs (get narrower), liver (releases glucose)

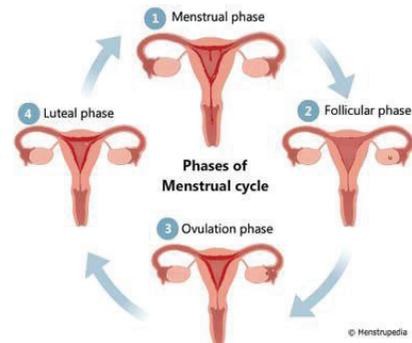
3. The menstrual cycle

Menstrual cycle	A (roughly) 28 day cycle that prepares a woman's body for pregnancy.
Ovulation	The release of an egg cell by an ovary
Fertilisation	When a sperm cell fuses with an egg cell to form a zygote.
Days 1-5	Menstruation (a period): the lining of the uterus breaks down and leaves the body through the vagina.
Days 6-12	The uterus lining begins to thicken again.
Days 13-15	Ovulation happens
Days 16-28	The uterus lining continues to thicken and would be able to accept an embryo if fertilisation happens.
Control of the cycle	The menstrual cycle is controlled by the sex hormones: oestrogen and progesterone.



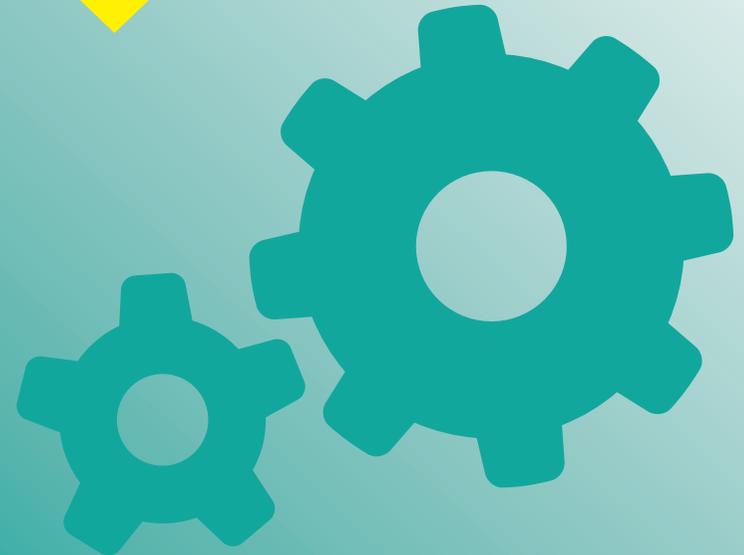
4. Hormones and the menstrual cycle (HT)

Egg follicle	A layer of tissue surrounding each of the immature eggs in the ovaries.
Oestrogen	Causes the release of FSH and the thickening of the uterus lining. High oestrogen levels cause LH release.
FSH	Causes one follicle to develop and mature the egg cell within it.
LH	Causes ovulation when the egg is released from the follicle.
Corpus luteum	The follicle becomes a corpus luteum after ovulation, and releases progesterone. It breaks down over two weeks.
Progesterone	Maintains the thickness of the uterus lining, inhibits FSH release. Falling progesterone levels trigger ovulation.





5. Contraception and fertility treatment	
Contraception	Preventing sexual intercourse from leading to fertilisation and pregnancy.
Condom	Worn on the penis, they prevent sperm from entering the vagina. Also prevent STDs.
Diaphragm or cap	Placed over the cervix at the top of the vagina. Prevent sperm entering uterus, do not prevent STDs.
Contraceptive pill / implant	Uses hormones to prevent ovulation. Does not prevent STDs.
Assisted reproductive technology (ART)	Using hormones and other methods to increase the chance of pregnancy.
Clomifene therapy	Clomifene increases the levels of FSH and LH to make egg successful ovulation more likely.
In vitro fertilisation (IVF)	Sperm is extracted from a man, and eggs from a woman. The eggs are fertilised in a laboratory and one or more is placed into the uterus.



History



	Date	Key events
1	September 1, 1939	Germany invades Poland
2	September 3, 1939	Britain and France declare war on Germany (<i>start of WW2</i>)
3	January, 1940	Rationing introduced across the UK
4	May to June, 1940	Dunkirk evacuated and France surrenders to Germany Germany uses blitzkrieg to take over much of Western Europe
5	July, 1940	Germany launches air attacks on Great Britain (<i>The Battle of Britain and the Blitz begins</i>) Germany, Italy and Japan signed the Tripartite Pact creating the axis alliance
6	December 7, 1941	The Japanese attack the US navy in Pearl Harbor. The next day, the USA enters the war fighting with the allies
7	June 6, 1944	D-day and the Normandy invasion. Allied forces invade France and push back the Germans
8	April 30, 1945	Adolf Hitler commits suicide
9	May 7, 1945	Germany surrenders & victory in Europe is declared the next day
10	August 1945	Atomic bombs dropped on Hiroshima & Nagasaki, Japan by the US killing approximately 226,000 people
11	September 2, 1945	Japan surrenders signaling the end of WW2
12	July, 1954	Rationing ends in the UK

Leaders		
1	Adolf Hitler	Leader of the Nazi Party and Chancellor of Germany, 1933 - 1945 (<i>also referred to as the Führer meaning leader</i>)
2	Winston Churchill	UK Prime Minister, 1940 - 1945 (and again from 1951 - 1955)
3	Neville Chamberlain	UK Prime Minister, 1937 - 1940 (<i>infamous for failed attempts to satisfy Hitler's demands prior to the war</i>)
4	Franklin D. Roosevelt	US President, 1933 - 1945 (<i>took the US into the war following the Pearl Harbor attacks</i>)
5	Harry S. Truman	US President, 1945 - 1953 (<i>responsible for the decision to drop Atomic bombs on Japan</i>)
6	Joseph Stalin	General Secretary of the Communist Party and Leader of the USSR, 1929 - 1953



'History will be kind to me for I intend to write it.'
Churchill



'It is not truth that matters, but victory' – Hitler (performing Nazi salute above)

	Term	Definition
1	Allies	Countries which fought on the British side (including: USA, Great Britain, France, Russia (1941-1945))
2	Evacuee	Someone who was evacuated, moved from a danger area to a safer place (<i>normally from the cities to rural areas</i>)
3	Black out	System of ensuring no lights were visible after dark so that buildings could not be spotted by enemy planes
4	Rationing	The controlled distribution of scarce resources (<i>mainly food & clothing</i>)
5	Air raid shelter	A building to protect people from bombs dropped by planes Anderson Shelter: Made of corrugated iron. Usually at the end of the garden Morrison Shelter: Metal cage used inside the house. Could double as a kitchen table
6	Trenches	A long, narrow ditch used for troops to shelter from enemy fire or attack
7	Axis	Countries which fought on the German side (including: Italy, Germany, Japan, Russia (1939-1941))
8	Nazi	Member of the fascist German political party which came to power in 1933. Symbol = swastika
9	Blitz	Series of aerial bombing raids on the UK, mainly cities including London, Bristol & Nottingham
10	Holocaust	Mass murder of Jews and other groups of people by the Nazis
11	Fascism	Right wing political view associated with not allowing opposition and total control by a dictator.
12	Blitzkrieg	Translated as 'lightning war'. German quick strike invasion of Western Europe
13	Luftwaffe	The German Air Force (responsible for the Blitz)
14	Enigma	A machine used by the Nazis to send coded messages

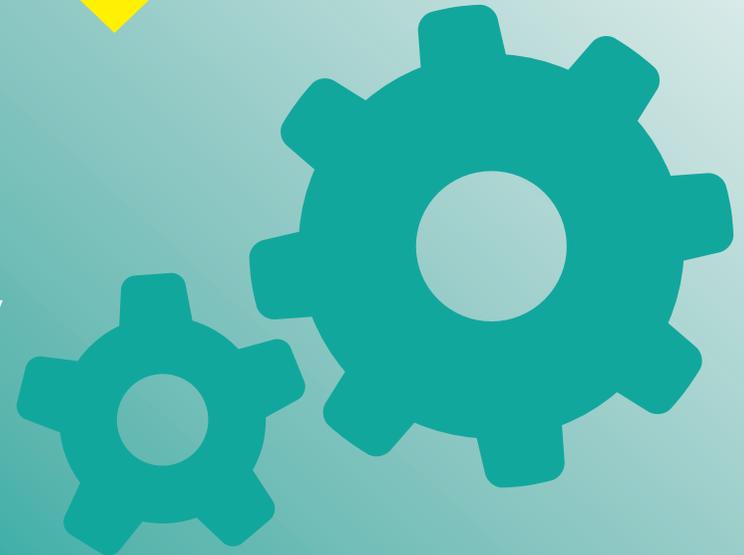


Above left: Enigma machine

Above right: Swastika (symbol of Nazis)

Below: Remains of a house after a bombing raid during the Blitz





Geography



KEY WORDS:

- Biome
- Desert
- Physical Geography
- Grassland
- Forests
- Conflict
- Tourism
- Region
- Arabian Peninsula
- Population density
- GDP

Once upon a time, the Middle East was part of the **Ottoman Empire**. This Islamic empire existed from around 1299 to about 1918 and from 1454 claimed Constantinople (Istanbul today) as its capital city. By 1914 the empire was declining, and had lost areas like Egypt in wars. In WW1 the empire fought against Britain, France and Russia. When they lost the war, the empire was divided up between Britain and France, which caused a lot of tension. The whole of the Middle East is now independent.



For many reasons some countries in the Middle East are richer than others. Those countries that have got oil have been able to become very wealthy. Other countries with poor natural resources are poorer. However the wealth in the rich countries is not always shared equally.

Country	GDP per person (PPP) in dollars, in 2013
Bahrain	43 900
Kuwait	83 800
Oman	45 300
Qatar	136 700
Saudi Arabia	53 600
UAE	59 800
Yemen	4000
UK	38 300

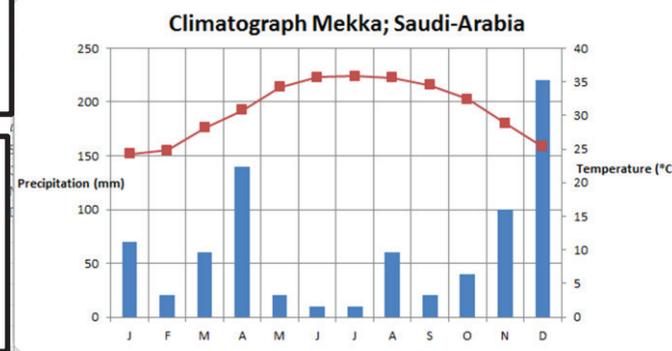
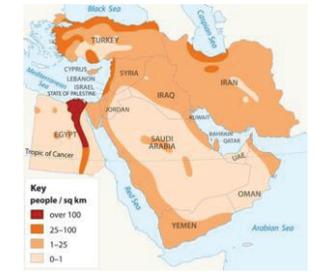
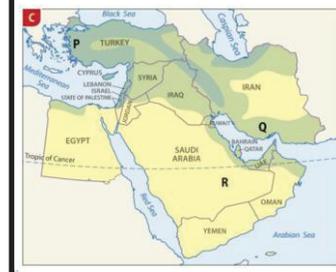
The Middle East is a **region** made up of a number of different countries. These countries all have different landscapes, languages, religions and customs

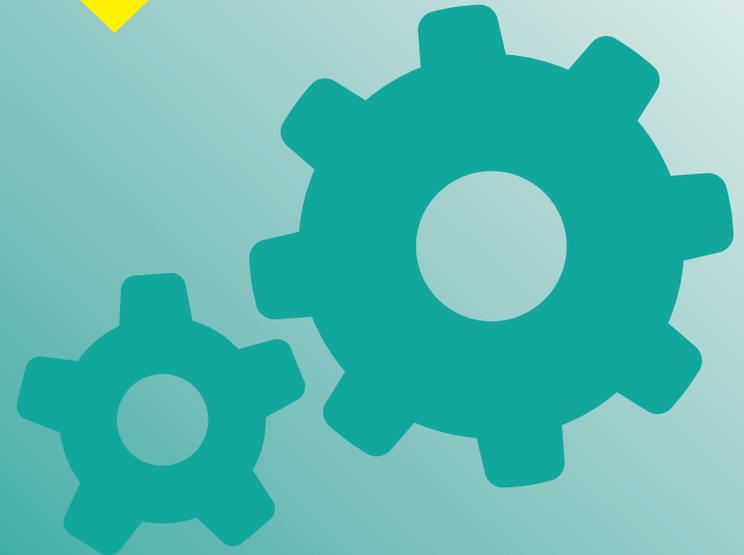
The **climate and the landscape** also has a big impact on **where people live in the Middle East**. Places where people can farm, get reliable water or other resources are the most densely populated. A **choropleth map** uses one colour to show the proportion of people living in one place.



The **climate** of the Middle East is also varied and this is due to the landscape. Deserts are hot and dry, the mountains can be snow covered in winter.

The Middle East has a **varied landscape** made up of Mountains, deserts, marshlands and coastlines. The Arabian peninsular is largely made up of Desert, one part of this is called the Rub Al Khali or the Empty Quarter





Religious Studies



HINDUISM KNOWLEDGE ORGANISER



Overview

Hinduism is one of the world's major religions. It is the **world's 3rd largest religion**, with about 1.1 billion followers. It is around 5,000 years old.

Hindus are the people who follow Hinduism. It is a very complex religion that is followed by different people in different ways.

Many gods are worshipped in Hinduism. All of these different Gods are believed to be a part of the supreme God named '**Brahman**.'

Hindus believe in **karma** and **reincarnation** – that when you die you are reborn as something else.

Hinduism does not have one holy book, but several sacred texts. **Mandirs** are Hindu worship buildings.

Image of Holi festival, celebrating the start of spring. People smear each other with colours.



Hindu Beliefs

Brahman and the Gods



-Hindus believe in one supreme God called Brahman. He can be found in everyone and everything, including the other Gods.

-Some of the important other Gods include 'Brahma' (the creator), 'Shiva' (the destroyer) and 'Vishnu' (the protector). These three together form the 'Trimurti' (trinity).

-Other gods include Ganesh (remover of obstacles), Hanuman (the monkey God), Lakshmi (the Goddess of wealth and good fortune, and Vishnu (the God who preserves life and stands up to evil).

Karma and Reincarnation

-Hindus believe that people are born again after they die, as another living thing (reincarnation).

-In each life the person is rewarded or punished for the things that they have said and done in their last life – this is called karma.

-Hindus believe that if they live a perfect life, they will be freed from birth and death to join the Gods (Moksha).



Festivals

-Hindus enjoy many festivals as a part of their religion. Holi festival marks the beginning of spring.

-Diwali, or the Festival of Lights, is held in the Hindu month of Ashwin (September or October in the western calendar). This event marks the Hindu New Year. Oil lamps are lit and floated down rivers to welcome the Goddess of Wealth. Fireworks are set off in order to ward off evil spirits.

-Hindu people also go on pilgrimages, for example to the River Ganges, which is sacred to Hindus.

Answers to Important Questions and Key Vocabulary

Where and how do Hindus worship? Why?



-Many Hindus worship at home in their own shrine – this could be anything from a room, an altar, or simply pictures or statues.

-The Hindu building for communal worship is called a Mandir (Hindu temple). The temples are dedicated to different gods and are the focus of religious life.

-At Mandirs, Hindu people often recite the names of Gods and Goddesses. They also offer water, fruit and flowers to the Gods.

What are the Hindu holy books?



-There are many different types of holy texts in Hinduism. Perhaps the most sacred are called the Vedas. The Vedas guide people in their daily lives. They are written into the Sanskrit language.

Where do most Hindus live in the world?



-About 15% of the world's population are Hindus. -India has the most Hindus by far – about 1 billion Indians are Hindus – this is around 80% of all Indians.

-However, Nepal has the highest proportion of Hindus – about 83% of its population are Hindus. There are also lots of Hindus in Bangladesh, Indonesia, Malaysia, Pakistan and Sri Lanka.

-Most of the populous countries in the world contain a population of Hindu people.

How many different types of Hindus are there?



-There are many, many different forms of Hinduism, as different types have developed over the thousands of years since it was founded.

-There are four main forms – Vaishnavism, Shaivism, Shaktism and Smartism. These four types can be broken down many more times!

-Although they have small differences, each of the different forms follows the same rough principles.

Key Vocabulary

Hindu

Brahman

Karma

Reincarnation

Brahma

Shiva

Vishnu

Holi

Dewali

Dhoti

Sari

River Ganges

Top 10 Facts!

- Hindus believe that all living things have souls.
- Because of this, very committed Hindus are vegetarians.
- Cows are considered to be particularly sacred, as they give milk to the people.
- People clean their houses, and then decorate them, to celebrate Diwali.
- Traditional Hindi clothes include a robe (dhoti) and shawl (chaddar) for men.
- Hindu women wear a long piece of clothing called a sari.
- Singing and dancing is an important part of Hindu worship, as is chanting.
- Big Hindu ceremonies include marriage (vivaha) and cremation (antyeshti)
- Hindu wedding celebrations last for many days. The bride and groom wear red and gold.
- After death, Hindus are cremated, and their remains are scattered in a nearby river.

Hindu Timeline

- | | | | | | | | |
|---|---|---|--|-----------------------------------|--|--|--|
| 2500BCE: Evidence of Indus Valley Hindus. | 1500 BCE: The oldest Hindu scriptures were created. | 1300 BCE: The oldest Hindu hymns were composed. | 800 BCE: The sacred text of the Mahabharata begins to be composed. | 100 BCE: The Ramayana is written. | 600CE: Hinduism begins to grow and flourish – prayers and songs written. | 950-1050CE: A 'City of Temples' is built in India at Khajuraho – 80 still stand. | c. 1600 CE: The Hindu Renaissance begins. Many modern versions of sacred texts are found, translated and used. |
|---|---|---|--|-----------------------------------|--|--|--|



BUDDHISM KNOWLEDGE ORGANISER



Overview

Buddhism is one of the world's major religions. It is the world's 4th largest religion, with about 520 million followers.

Buddhists are the people who follow Buddhism. They follow the teachings of a man named **Siddhartha Gautama**, who became known as **the Buddha**.

The religion began when Gautama, a prince who had lived a life of luxury, realised that there was **suffering in the world**, and committed himself to understanding why.

This happened in **India** around 2,500 years ago.

The holy book in Buddhism is called **Tipitaka**. **Buddhist Temples** are buildings designed for Buddhist worship.

Image of the Buddha, known in life as Siddhartha Gautama, whose teachings founded Buddhism.



Buddhist Beliefs

Siddhartha Gautama's Story



-Siddhartha was a rich prince of an area north of India. His mother and father treated him well, and protected him from the suffering in the world.

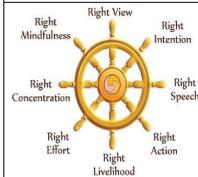
- As a young man, Siddhartha left the palace for the first time, and was upset by the things that he saw: old age, sickness and death. He decided to leave his comfortable life to see if he could find an answer to the suffering.
- After many years of trying, he sat under a tree (the Bodhi tree) by a full moon and started meditating. In doing this he became Enlightened – he saw the meaning in all things. He was then known as the Buddha.

The Four Noble Truths

- The Buddhist teachings are known as Dharma. They include the Four Noble Truths and the Eightfold-Path. Buddhism's Noble Truths are:
 1. Life always involves suffering (dukkha).
 2. Suffering happens because people are greedy and never satisfied with what they have.
 3. Greed and selfishness can be overcome.
 4. The way to overcome them is to follow the Eightfold Path.



The Eightfold Path



- Siddhartha created a way of life which ensured that his basic needs were covered, but didn't require any extra comforts. Buddhists try to live following the Eightfold Path:

1. Right viewpoint
2. Right values/ thought
3. Right speech
4. Right actions
5. Right livelihood
6. Right effort
7. Right concentration
8. Right mindfulness

Answers to Important Questions and Key Vocabulary

Where and how do Buddhists worship? Why?



- Buddhists worship either in temples or at home, often sitting or kneeling facing a shrine of Buddha.
- They may listen to monks reciting religious texts, take part in chanting, or meditate.
- Buddhists hope to achieve Enlightenment. They believe that there is a cycle of birth, life, death and rebirth. If a person gains Enlightenment (like the Buddha) they can break out of this cycle, to a place of eternal peace that is known as 'Nirvana.'

Key Vocabulary

Buddha
Buddhist
Siddhartha Gautama

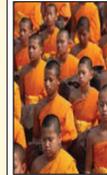
What is the Tipitaka?



- The Tipitaka is believed to be Buddha's teachings. It is written in an ancient Indian language known as Pali. It is a very large book, that takes up about forty volumes when translated into English! The Tipitaka is made up of three sections of wisdom.

Tipitaka
Temple

Where do most Buddhists live in the world?



- About 7% of the world's population are Buddhists.
- China has the most Buddhists – about 250 million Buddhists live there.
- However, Cambodia has the highest proportion of Buddhists – about 97% of its population are Buddhists. There are also lots of Buddhists in Thailand, Sri Lanka, and Japan.
- Many Buddhists in the far east devote their lives to Buddhism, living in isolation in temples.

Wesak
4 Noble Truths

How many different types of Buddhists are there?



- Buddha's teachings spread far across the Asian continent. As it spread, different peoples formed their own approaches of Buddhism.
- The three main types are called Theravada, Mahayana and Tibetan Buddhists.
- Although they differ slightly, they all still keep the basic features of Buddhism.

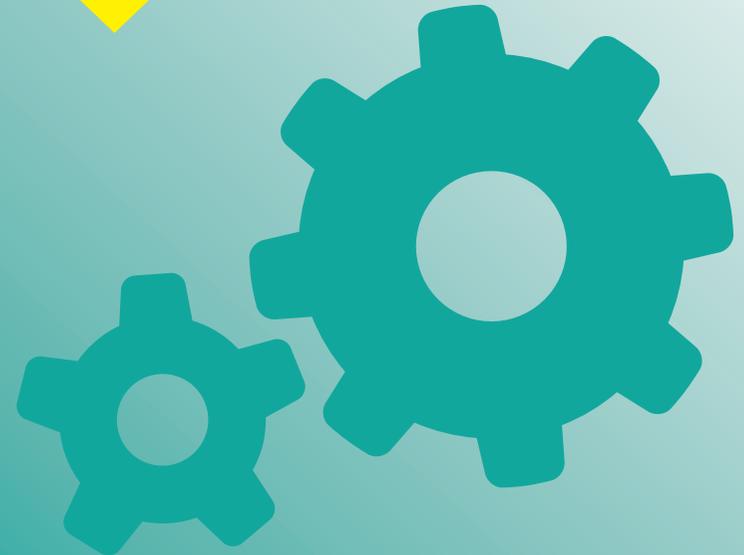
Eightfold Path
Lotus Flower
Theravada
Mahayana
Tibetan

Top 10 Facts!

1. Buddhists don't believe in a God who made the world and everything in it.
2. Siddhartha's family were Hindu.
3. The lotus flower is an important symbol in Buddhism. It is a symbol of enlightenment.
4. The name 'Buddha' means 'the enlightened one' or 'the one who knows.'
5. Some Buddhists have shrines at home where they are able to worship.
6. The teachings of Siddhartha Gautama were not written down until about 400 years after his death.
7. Siddhartha Gautama died around age 80.
8. 'Puja' is the name for worship in Buddhism. People often light candles as they worship.
9. In images of Buddha, faces are always made to look calm and serene, to show that he has a peaceful mind.
10. Wesak is an important festival in Buddhism.

Buddhism Timeline

- | | | | | | | | |
|-------------------------------------|--|---|--|------------------------|---|--|--|
| 490BCE: Siddhartha Gautama is born. | 461 BCE: Gautama leaves home to find an end for suffering. | 455 BCE: Gautama is enlightened – becomes the Buddha. | 454 BCE: People begin to follow the teachings of the Buddha. | 410 BCE: Gautama dies. | 386 BCE: Buddhism separates into two different lines. | 269 BCE: Emperor Asoka begins to spread Buddhism across India. | 200 BCE – 1200CE: Buddhism spreads along trade routes, reaching many other countries, including Sri Lanka, China, and Indonesia. |
|-------------------------------------|--|---|--|------------------------|---|--|--|



Spanish



1

1. ¿Qué te gusta comer?	1. What do you like to eat?
2. Me gusta mucho comer pescado y patatas fritas	2. I really like to eat fish and chips
3. Me encantaN comer queso fruta	3. I love to eat cheese and fruit
4. Prefiero comer huevos y arroz	4. I prefer to eat eggs and rice
5. ¿Qué NO te gusta comer?	5. When don't you like to eat?
6. Detesto comer marisos	6. I hate to eat seafood
7. ¿Qué te gusta beber?	7. What do you like to drink?
8. Me gusta beber	8. I like to drink lemonade
9. ¿Qué NO te gusta beber?	9. What don't you like to drink?
10. Odio beber agua	10. I hate to drink water

3

1. ¿Cuál es tu opinión de fruta?	1. What is your opinion of fruit?
2. Creo que es rica, dulce y deliciosa	2. I think it is tasty, sweet and delicious
3. ¿Cuál es tu opinión de huevos?	3. What is your opinion of eggs?
4. Creo que son asquerosos	4. I think that they are disgusting

2

1. ¿Qué desayunas?	1. What do you have for breakfast?
2. Por la mañana desayuno cereals, leche y tostadas	2. In the morning I have for breakfast cereal, milke and toast
3. ¿Qué comes?	3. What do you eat at dinner/lunch?
4. A la hora de comer como un bocadillo y un pastel	4. At lunchtime I eat a sandwhich and a cake
5. ¿Qué cenas?	5. What do you have for tea/dinner?
6. Por la noche ceno pollo con ensalada	6. At night I have for tea/dinner chicken and salad
7. ¿A qué hora desayunas / comes / cenas?	7. What time do you have breakfast/lunch/tea/dinner?
8. Desayuno a las siete / Como a las doce / Ceno a las seis	8. I have breakfast at 7 / I eat lunch at 12 / I have tea/dinner at 6

4

1. ¿Que va a tomar usted?	1. What are you going to have?
2. De primer plato voy a tomar sopa y pan	2. For first course I am going to have soup and bread
3. ¿Y de segundo?	3. And for second course?
4. De segundo plato me gustaría tomar carne y verduras	4. For second course I would like to have meat and vegetables
5. ¿Para beber?	5. And to drink?
6. Quiero un agua y una coco-cola	6. I want a water and a coca cola
7. ¿Algo más?	7. Anything else?
8. Si, la cuenta por favour	8. Yes the bill please



5

1. ¿Cuál es tu comida favorita?	1. What is your favourite food?
2. Mi comida favorita es ensalada mixta	2. My favourite food is mixed salad
3. Mis comidas favoritas son tortilla Española y paella pero es picante	3. My favourite foods are Spanish omelette and paella but it is spicy
4. Mi comida favorita es helado porque es sabroso	4. My favourite food is ice cream because it is tasty
5. Mi comida favorita es tarta de queso	5. My favourite food is cheese cake
6. ¿Cuál es tu bebida favorita?	6. What is your favourite drink?
7. Mi bebida favorita es té porque es muy rico	7. My favourite drink is tea porque it is tasty
8. Mi bebida favorita es café pero es amargo	8. My favourite drink is coffee but it is bitter
9. Mi bebida favorita es agua porque es sano	9. My favourite drink is water because it is healthy

6

1. ¿Qué vas a comprar?	1. What are you going to buy?
2. Voy a comprar cebollas, lechuga y aguacates	2. I am going to buy onions, lettuce and avocado
3. ¿Qué vas a traer?	3. What are you going to bring?
4. Voy a traer limonda, fajitas y guacamole	4. I am going to bring lemonade, fajitas and guacamole
5. ¿Qué vas a hacer?	5. What are you going to do?
6. Vamos a bailar, comer y beber	6. We are going to dance, eat and drink
7. ¿Cómo va a ser?	7. What is it going to be like?
8. Va a ser guay	8. It is going to be cool

7

1. ¿Qué hiciste durante la fiesta?	1. What did you do during the party?
2. Bailé con mis amigos	2. I danced with my friends
3. Comí chocolate e helado	3. I ate chocolate and ice cream
4. Bebí limonda	4. I drank lemonade
5. Fui a la casa de mi amiga	5. I went to my friends house
6. Hablé mucho	6. I talked a lot



<u>C</u> onnectives		<u>O</u> pinions		<u>R</u> easons		<u>T</u> ime Phrases		<u>I</u> ntensifiers	
y	and	en mi opinión	in my opinion	emocionante	exciting	normalmente	normally	muy	very
pero	but	pienso que	I think that	increíble	amazing	todos los días	everyday	bastante	quite
sin embargo	however	creo que	I believe that	entretenido/a	entertaining	a veces	sometimes	un poco	a bit
o	or	me gusta / no me gusta	I like / I don't like	gracioso/a	funny	nunca	never	demasiado/a	Too (much)
también	also	me encanta / adoro / amo	I love	inolvidable	unforgettable	a menudo	often	más.....que	more...than
tampoco	nor / neither	odio / Detesto	I hate	guay	cool	siempre	always	menos.....que	less....than
porque / ya que	because	prefiero	I prefer	molesto/molesta	annoying	mañana	tomorrow		
además	furthermore	me chifla/me flipa/ Me mola	I'm crazy about/I really like	una tontería	a joke	la semana que viene	next week		
con	with			una pérdida de tiempo / dinero	a waste of time	el fin de semana que viene	next weekend		
sin	without	no aguanto	I can't stand	un rollo	A bore	el año que viene	next year		
por lo tanto	therefore					ayer	yesterday		
						anoche	last night		
						la semana pasada	last week		
						hace un día / año	a day year ago		



PRESENT TENSE VERBS

Remove the infinitive ending (AR/ER/IR) and add the following for each person...

	<u>- Ar</u>	<u>- Er</u>	<u>- Ir</u>
Yo (I)	o	o	o
Tu (you)	as	es	es
El/ella (he/she)	a	e	e
Nosotros (we)	amos	emos	imos
Vosotros (y'all)	áis	éis	ís
Ellos/Ellas (they)	an	en	en

e.g.
montamos = we ride / bebemos = we drink / compartimos = we share

PAST TENSE VERBS

Remove the infinitive ending (AR/ER/IR) and add the following for each person...

	<u>- Ar</u>	<u>- Er</u>	<u>- Ir</u>
Yo (I)	é		í
Tu (you)	aste		iste
El/ella (he/she)	ó		io
Nosotros (we)	amos		imos
Vosotros (y'all)	asteis		isteis
Ellos/Ellas (they)	aron		ieron

e.g.
montamos = we rode / bebimos = we drank / compartimos = we shared

IMMEDIATE FUTURE TENSE

	<u>IR</u>	A +	<u>INFINITIVE</u>
YO (I)	VOY		e.g. beber / comer / vivir / jugar / tener etc
TU (YOU)	VAS		
EL/ELLA (HE/SHE)	VA		
NOSOTROS (WE)	VAMOS		
VOSOTROS (Y'ALL)	VAIS		
ELLOS/ELLAS (THEY)	VAN		

ME GUSTA / ME GUSTAN

You must make some opinions plural by adding an 'n' when talking about plural nouns.

<u>Singular</u>	<u>Plural</u>
Me gusta el / la	Me gust <u>an</u> los / las
No me gusta el / la	No me gust <u>an</u> los / las
Me encanta el / la	Me encant <u>an</u> los / las

e.g.
Me gusta el arroz / me gustan los huevos

NEGATIVES

1. Using 'no'

Put '**no**' before the verb...

e.g. **no** bebo limonada - I don't drink lemonade

2. Using 'nunca' (never)

Usually nunca comes before the verb...

e.g. **nunca** desayuno - I never have breakfast

3. Using no...nada (nothing)

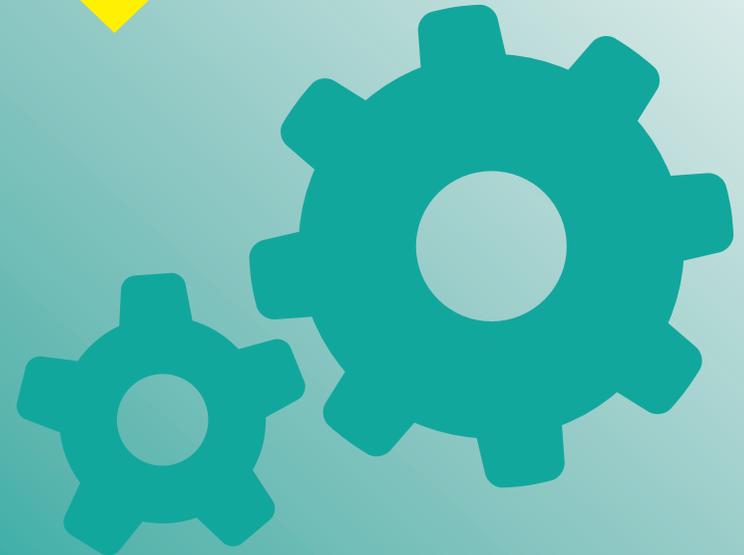
Make a sándwich with **no...nada** around the verb...

e.g. **no** ceno **nada** - I don't have anything for dinner

e.g.

voy a beber coca-cola = I am going to drink coca-cola

vas a comer caramelos = you are going to eat sweets



French



1

1. Quelles sont tes qualités?	1. What are your qualities?
2. Je suis sympa mais je ne suis pas drôle	2. I am nice but I am not funny
3. Aussi je ne suis pas du tout égoïste.	3. Also I am not at all selfish.
4. Je pense que mon frère est pénible	4. I think that my brother is annoying
5. Et il est paresseux	5. And he is lazy
6. Cependant, ma soeur est assez curieuse	6. However, my sister is quite curious
7. Aussi elle est très sportive	7. Also she is very sporty
8. Mes parents sont timides et intelligents	8. My parents are shy and intelligent

3

1. Quelle musique écoutes-tu?	1. What music do you listen to?
2. J'écoute du pop-rock tout le temps	2. I listen to pop-rock all the time
3. Aussi j'écoute toujours de la musique classique	3. Also I always listen to classical music
4. Pourquoi?	4. Why?
5. Parce que j'aime les mélodies	5. Because I like the tunes
6. J'écoute beaucoup la musique d'Adele car j'adore les paroles	6. I listen a lot to Adele's music because I love the lyrics

2

1. Tu fais quoi avec tes copains / copines?	1. What do you do with your friends?
2. On écoute de la musique et on rigole	2. We listen to music and we have fun
3. Tu parles de quoi avec tes copains / copines?	3. What do you talk about with your friends?
4. On parle de la mode et des films	4. We talk about fashion and films
5. Tu t'entends bien avec ton frère?	5. Do you get on well with your brother?
5. Oui, je m'entends bien avec mon frère car on s'amuse	5. Yes I get on well with my brother because we have fun
6. Tu t'entends bien avec ta soeur?	6. Do you get on well with your sister?
7. Non, je ne m'entends pas bien avec ma soeur car on se dispute	7. No I don't get on well with my sister because we argue.

4

1. Qui est ton chanteur/chanteuse préféré(e)	1. Who is your favourite singer?
2. Mon/ma chanteur/chanteuse préféré(e) c'est Ariana Grande	2. My favourite singer is Ariana Grande
3. Et ton groupe préféré?	3. And your favourite group?
4. Mon groupe préféré c'est Little Mix car la musique me rend joyeux/joyeuse	4. My favourite group is Little Mix because the music makes me happy
5. Mais je déteste la chanson car ça me rend triste	5. But I hate the song... because it makes me sad
6. J'adore la chanson ... car ça me donne envie de danser	6. I love the song because it makes me want to dance



5

1. Qu'est-ce tu portes normalement?	1. What do you normally wear?
2. Normalement je porte une jupe vert kaki	2. Normally I wear a khaki green skirt
3. Mais quelquefois je porte un pantalon beige	3. But sometimes I wear beige trousers
4. J'ai un style plutôt chic et classique	4. My style is rather chic and classic
5. Qu'est-ce que tu vas porter à la fête?	5. What are you going to wear to the party?
6. Je vais porter un jean noir et une chemise blanche	6. I am going to wear black jeans and a white shirt
7. Aussi je vais porter des bottes grises	7. Also I am going to wear grey boots
8. Mais demain je vais porter un pull et des baskets	8. But tomorrow I am going to wear a jumper and trainers

7

1. Qu'est-ce tu vas faire ce weekend?	1. What are you going to do this weekend?
2. Je vais aller en ville avec ma famille	2. I am going to go to town with my family
3. Je vais aller au cinéma avec mes amis	3. I am going to go to the cinema with my friends
4. Aussi, je vais faire de la randonnée	4. Also I am going to do hiking
5. Je vais jouer au foot	5. I am going to play football

6

1. Qu'est-ce tu as fait le weekend dernier?	1. What did you do last weekend?
2. Je suis allé(e) au stade avec mes amis	2. I went to the stadium with my friends
3. Je suis allé(e) au parc avec ma famille	3. I went to the park with my family
4. Je suis allé(e) au café	4. I went to the cafeteria
5. J'ai mangé des frites au café	5. I ate chips at the cafeteria
6. J'ai écouté de la musique	6. I listened to music
7. J'ai dansé et j'ai nagé	7. I danced and I swam
8. J'ai regardé un match de foot	8. I watched a football match
9. Pourquoi?	9. Why?
10. Parce que c'était amusant et cool	10. Because it was fun and cool



<u>C</u> onnectives		<u>O</u> pinions		<u>R</u> easons		<u>T</u> ime Phrases		<u>I</u> ntensifiers	
et	and	j'aime	I like	amusant/e	fun	hier	yesterday	très	very
mais	but			génial/e	great	l'année dernière	last year	assez	quite
cependant	however	j'adore	I love	passionnant/e	exciting	la semaine dernière	last week	un peu	a bit
aussi	also	je n'aime pas	I don't like	facile	easy	quelquefois	sometimes	trop	too
ou	or	je déteste	I hate	ennuyeux/euse	boring			toujours	always
car c'est	because it is	à mon avis	from my point of view/in my opinion	nul/nulle	rubbish	une fois par semaine	once a week	moins	less
parce que c'est	because it is	je pense que	I think that	difficile	difficult	souvent	often	plus	more
avec	with	je préfère	I prefer	barbant/e	boring	d'habitude	usually	tout le temps	all the time
puis	then	je suis d'accord	I agree	utile	useful	demain	tomorrow		
donc	therefore	je ne suis pas d'accord	I don't agree	inutile	useless	le weekend prochain	next weekend		
après	after								



THE NEAR FUTURE TENSE

- to say what you are going to do.

present tense of the verb 'aller' (to go) + infinitive verb.

Present tense of aller (to go)	Infinitive verb	Meaning
je vais	aller	I am going to go
tu vas	manger	you are going to eat
il/elle/on va	regarder	he/she is going to watch / we are going to watch
nous allons	danser	we are going to dance
vous allez	finir	you are going to finish (plural)
ils/elles vont	boire	they are going to drink

PERFECT TENSE WITH ÊTRE

For most verbs, the helping verb is 'avoir' but 13 verbs (mainly of movement) use the helping verb 'être' (to be).

- aller (to go),
- venir (to come),
- arriver (to arrive),
- partir (to leave),
- entrer (to enter),
- sortir (to go out),
- monter (to go up),
- descendre (to come down),
- naître (to be born),
- mourir (to die),
- rester (to stay),
- tomber (to fall),
- retourner (to return).

Present tense of être	Past participle	Meaning
je suis	parti(e)	I left
tu es	sorti(e)	you went out (1 friend)
il est	allé	he went
elle est	entrée	she entered
nous sommes	resté(e)s	we stayed
vous êtes	arrivé(e)(s)	you arrived (plural/polite)
Ils / elles sont	nés	they were born (male / female group)

PAST TENSE (PERFECT TENSE)

You use the perfect past tense to say what you did or what you have done.

helping verb + past participle.

- helping verb = present tense of 'avoir' (to have)
- past participle = remove the -er from the infinitive and replace with é

Present tense of avoir (to have)	Past participle	Meaning
j'ai	joué	I (have) played
tu as	dansé	you (have) danced
il/elle/on a	écouté	he/she (has) listened / we (have) listened
nous avons	regardé	we (have) watched
vous avez	chanté	you have sung / you sang (plural)
ils/elles ont	mangé	they have eaten / they ate

ADJECTIVES

The adjective has to agree with the noun it describes in gender and number.

Regular adjectives:

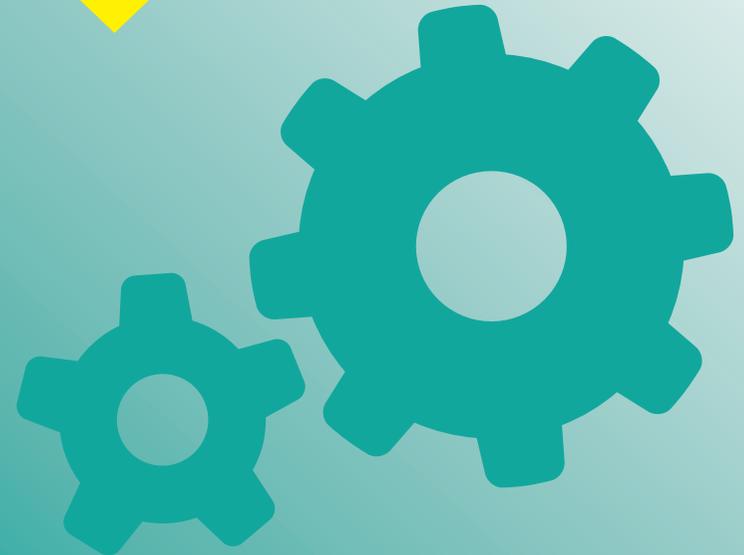
- add -e to describe feminine nouns
- add -s for plural

SINGULAR		PLURAL	
MASCULINE	FEMENINE	MASCULINE	FEMININE
grand	grande	grands	grandes
important	importante	importants	importantes

*if it already ends in 'e' you don't need to add anything e.g. 'timide / timides'

Irregular adjectives:

SINGULAR		PLURAL	
MASCULINE	FEMENINE	MASCULINE	FEMININE
essentiel	essentielle	essentiels	essentielles
actif	active	actifs	actives
généreux	généreuse	généreux	généreuses
paresseux	pareseuse	paresseux	paresseuses



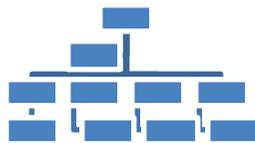
IT



Training and Development

- Training- Introducing employees to new concepts/ideas
- Development- Pushing employees further/giving further knowledge on an existing concept
- Training can either be:
 - Formal- In a learning environment/setting by professionals brought in to deliver
 - Informal- training that is on the job and usually delivered by regular employees
 - Self learning- giving employee the responsibility to learn outside of the work setting.
- Targets are then set and these are often reflected on in performance reviews

Organisational Structure



Hierarchical Structure
An organisation with many layers of management. There is lots of scope for promotion but issues with communication



Flat Structure
An organisation with few layers of management. There is less scope for promotion but efficient communication

Centralised structure- where decisions are made at the top level of management and passed down

Decentralised structure- where decisions are made by regional/functional managers lower down the business.

Communication- where messages are passed between two or more people. This can be problematic if it is insufficient or excessive. Barriers - refer to factors that could prevent effective communication. These include noise, language barriers and technology.

Ways of working

- Full time- where an employee works 37 or more hours per week
- Part time- where you work less than 36 hours per week
- Flexible- this is where the employees work different hours each week
- Remote Working- working from home through the use of computers/technology.

Types of contract

- Permanent- when an employee has a job for the foreseeable future, with no end date.
- Temporary- when an employee has a job for a given time period (eg 3 months)
- Freelance- when an employee is hired to complete a job, once the job is completed, they leave.

Motivation

Motivation is the will/desire to want to work, this can lead to:

Attract employees- more employees will apply to vacancies due to good reputation

Retain employees- employees will not leave

Higher productivity- increase in the amount of work each employee completes.

Financial-	Non-financial
<p><u>Remuneration</u>- a basic salary/wage</p> <p><u>Bonus</u>- money paid on top of salary/wage when targets are met.</p> <p><u>Promotion</u>- an increase in pay due to better position in management.</p> <p><u>Commission</u>- a percentage paid on top of wages based on sales made</p> <p><u>Fringe benefits</u>- small extras on top of wages such as company car, discount schemes etc</p>	<p><u>Job rotation</u>- giving employees the opportunity to perform different jobs to avoid repetition and boredom.</p> <p><u>Job enrichment</u>- allowing employees to have more responsibility, taking on more important work.</p> <p><u>Autonomy</u>- giving employees the power to be involved in decision making.</p>

Recruitment

Recruitment is the process of obtaining employees into a vacant job role/position. This can be done either through the use of internal or external recruitment. Internal

Recruitment is the filling of a position with someone who already works within the business, External recruitment is the filling of a position with someone completely new from outside of the business.

The business will provide the following documents when recruiting:

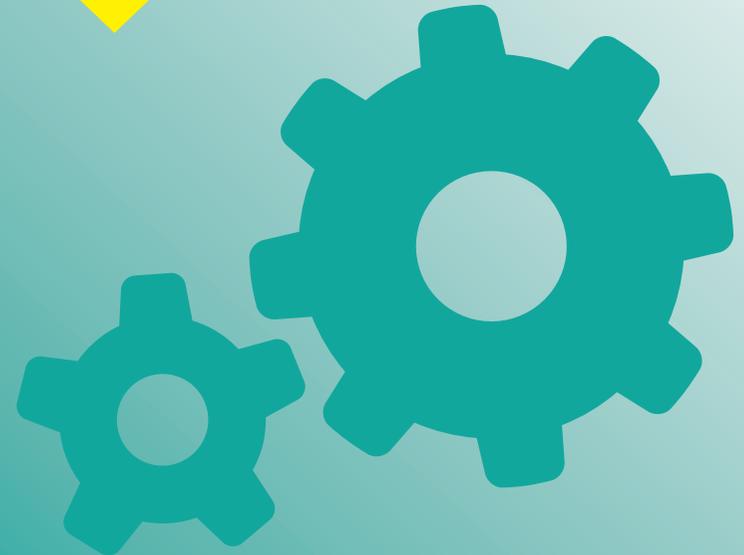
Person specification- this outlines the type of person that would be ideal for the job role

Job description- this details all of the roles and responsibilities of the job role being filled

** The applicant will provide a completed application form and their personal CV

Key job roles and their responsibilities:

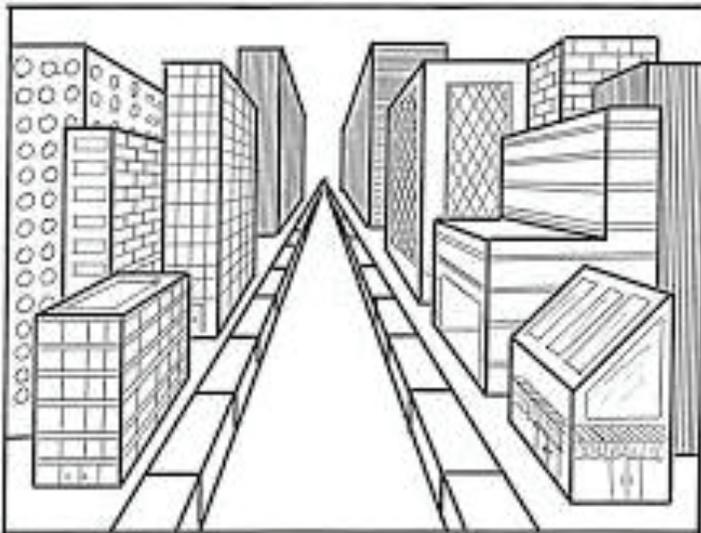
- Directors
- Senior managers
- Supervisors
- Operational staff
- Support staff



Art

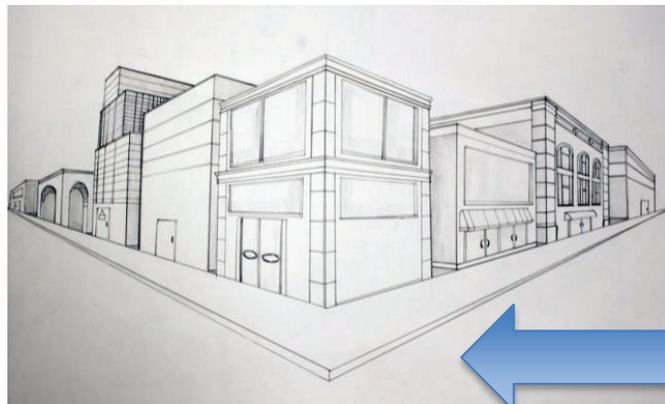


During this half term you will be learning about perspective. **One point perspective** is a drawing method that shows how things appear to get smaller as they get further away, converging towards a single 'vanishing point' on the horizon line. It is a way of drawing objects upon a flat piece of paper (or other drawing surface) so that they look three-dimensional and realistic.

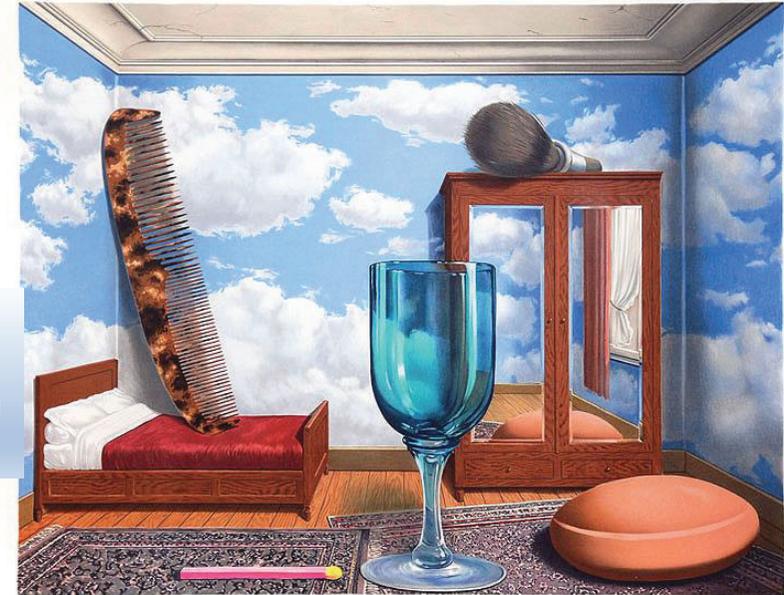


https://youtu.be/oRYhZrZ8G_Y

Independent study- In picture form show the difference between a worms eye view and a birds eye view



Two point perspective is where there is one horizon line and 2 vanishing points.



Above you can see the painting "Personal Values" by René Magritte (who was a Surrealist artist). You can see the scale of the objects seems wrong for the size of the room.

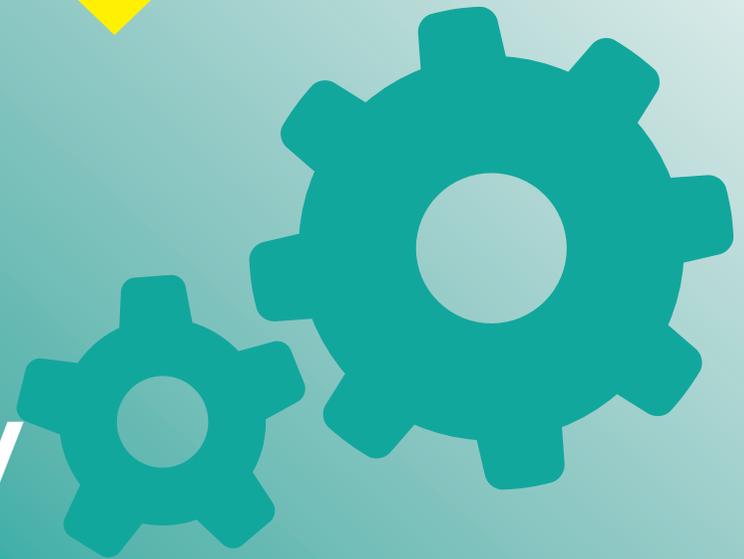
Independent study - Find out what Surrealism is and what makes a picture Surreal?

← **Example of a surreal room**

Independent study – Using one point perspective create a Surreal room. You can include anything in your room the stranger the better. However you must stick to the rules of perspective.

Keywords

Space Distance Converging Parallel Horizontal Vertical Vanishing point Horizon line Linear Receding Birds eye view Worms eye view.



Design Technology



Metals

Ferrous

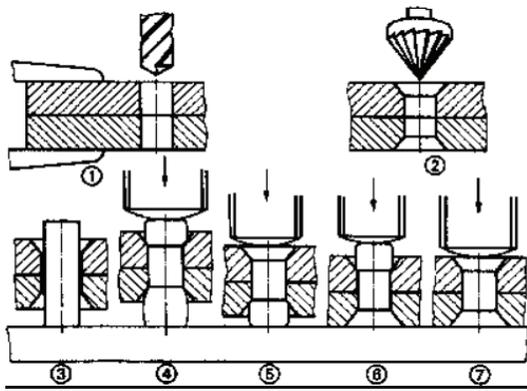
- Contain iron
- Magnetic
- Rust
- Cheaper
- Environment friendly

Non Ferrous

- No iron
- Non magnetic
- Don't rust
- Expensive
- Sustainable?

Alloys

- 2 or more metals
- Improved properties
- expensive



Countersink Head Riveting



Round Head Rivets



Machine Vice



Centre Punch



Pillar Drill

Permanent:	Temporary:
When we do not want to take the pieces apart again	When we will, or might need to take pieces apart again
Glues, welding, rivets	Screws, bolts, nails



Hand Vice



Ball Pein Hammer



Anthropometrics: is the study of average human measurements

Ergonomics: human factors that affect the design of products or places



Scribe



Countersink Bit

Material PHYSICAL properties

Absorbency
An ability to take on/attract another element such as water, heat or light

Density
The mass of a material per unit of volume/how compact it is

Fusibility
The ability of a material to combine with another material when heated into a liquid, and then cooling as one

Electrical Conductivity
The ability to conduct electricity

Thermal Conductivity
The ability of a material to conduct heat

Material WORKING properties

Strength
The ability to withstand force without breaking

Elasticity
The ability to stretch and return to their original shape

Ductility
The ability to be drawn or stretched out onto a thin strand without snapping

Malleability
The ability to be deformed and to remain in that shape

Hardness
The ability to withstand scratching or denting

Toughness
The ability to withstand breaking or snapping



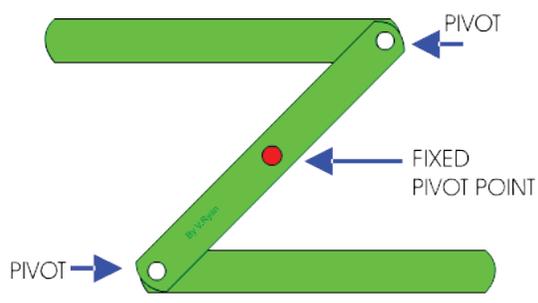
1: Mechanical Devices - Motion

There are four types of motion:

Linear Motion is movement in one direction along a straight line.		
Oscillating Motion This motion is similar to reciprocating motion, but the constant movement is from side to side along a curved path.		
Rotary Motion Examples of circular motion include a ball tied to a rope and being swung round in a circle		
Reciprocating Motion , this is repetitive up-and-down or back-and-forth linear motion		

Fixed pivot:
A **pivot** that attaches a link to the base; also called a fulcrum. It is represented in drawings by a solid circle.

Floating pivot:
A **pivot** that attaches one link to another, but neither to the base, such as a **pivot** connecting an input link to a lever. It is represented in drawings by an open circle.



2: Mechanical Devices – Levers

There are three classes of levers.

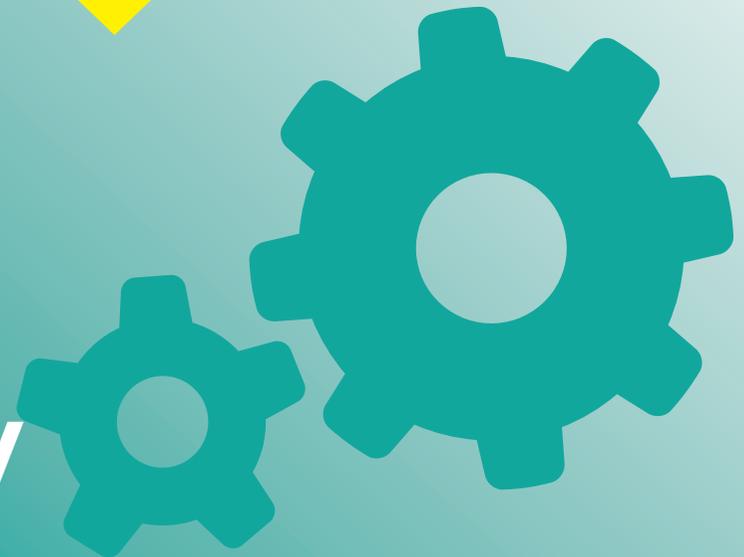
Class One A class one lever has its input on one side of the fulcrum and its output on the other.		
Class Two A class two lever has its input at one end of the lever, its output in the middle and fulcrum at the other end.		
Class Three A class three lever has its output at one end of the lever, its fulcrum at the other with its input in the middle.		

3. Boards

Type	Description and uses
Corrugated card	<ul style="list-style-type: none"> strong and lightweight used for packaging protection and point of sale stands available in different thicknesses
Duplex board	<ul style="list-style-type: none"> large foam-based board different finishes available including metallic and hologrammatic used for food packaging, e.g. take-away pizza boxes
Foil lined board	<ul style="list-style-type: none"> quality cardboard with a aluminium foil lining ideal for ready made meals or take away meal cartons The foil retains the heat and helps keep the food warm
Foam core board	<ul style="list-style-type: none"> very light, very stiff and very flat. It has a white, rigid polystyrene foam centre, with smooth white paper laminated onto both faces. It is easy to cut with a knife, a mount cutter or on a wall cutter great for modelling
Ink jet card	<ul style="list-style-type: none"> Has been treated so that it will give a high quality finish with inkjet ink available in matt and gloss
Solid white board	<ul style="list-style-type: none"> top quality cardboard made from quality bleached wood pulp. used for hard backed books and more expensive items excellent print finish

3: Mechanical Devices – Linkages

Reverse motion linkage	The reverse motion linkage changes the direction of the input motion so that the output travels in the opposite direction. If the input is pulled the output pushes and vice versa. It uses a central bar held in position with a fixed pivot (fulcrum) that forces the change in direction and two moving pivots which are connected to the input and output bars.	
Parallel motion or push/pull linkage	The push/pull linkage maintains the direction of the input motion so that the output travels in the same direction. If the input is pulled the output is pulled and so on. It uses three linking bars, four moving pivots and two fixed pivots.	
Bell crank linkage	The bell crank linkage changes the direction of the input motion through 90 degrees. It can be used to change horizontal motion into vertical motion or vice versa. It uses a fixed pivot and two moving pivots.	
Crank and slider	The crank and slider linkage changes rotary motion into reciprocating motion or vice versa. It uses a crank which is held with a fixed pivot. A connecting rod uses two moving pivots to push and pull a slider along a set path.	
Treadle linkage	The treadle linkage changes rotary motion into oscillating motion or vice versa. It uses a crank which is held with a fixed pivot. A connecting rod uses two moving pivots and a further fixed pivot to create a windscreen wiper motion.	



Food Technology



KS3 Y8 Food Tech Knowledge Organiser



Gelatinisation: using a starch to thicken a liquid

<p>Getting warm</p>	<p>I'm swelling up</p>	<p>I'm Bursting!!</p>	<p>Didn't we do well</p>
<p>COLD Flour particles suspended in liquid. They don't dissolve so they form a SUSPENSION (solid particles floating in a liquid)</p>	<p>60°C Getting warmer... 60 degrees Celsius The walls of the flour particles soften and start to absorb water so start to swell up</p>	<p>HOT..... 80°C At 80 Degrees Celsius Flour particles swell to 5 times normal size then burst, releasing their starch into the liquid thus thickening it</p>	<p>HOT..... 100°C Degrees Celcius Flour particles continue to swell and burst right the way to 100°C at which point the process is complete.</p>

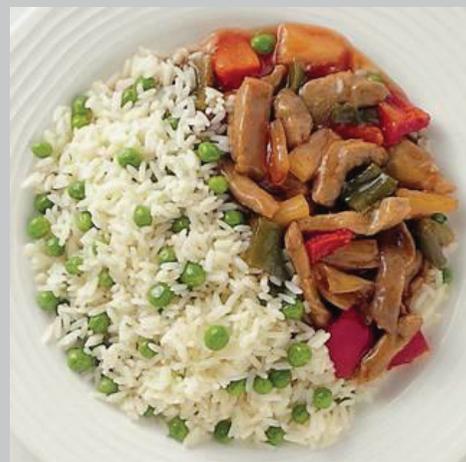


Why do we need to 'knead'?
The dough is kneaded to give the bread its texture. The protein in the flour (**gluten**) is stretched to make an elastic dough and pockets of gas are formed.



How to check when pasta is cooked:

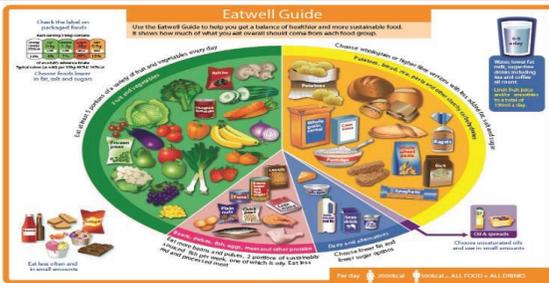
- Taste:** If it taste good, s'all good!
- Chop a piece in half.** If it's still white inside, cook some more.



Composite Meals:

Nutrient Dense Foods=	Energy Dense Foods=

Composite meals are: meals made up of foods from different parts of the Eatwell Guide. Much of the food people eat is in the form of dishes or meals with more than one kind of food in them. For example, pizzas, casseroles, pies, lasagne, spaghetti Bolognese and sandwiches are all made with foods from more than one of the five food groups.



The **Eatwell Guide** is based on the 5 food groups and shows how much of what you eat should come from each group.

The 5 different groups are:

- Fruit & Veg:** Vitamins and minerals
- Starchy Carbs:** Our body's chosen source of energy
- Protein:** Build & repair muscle cells, a source energy
- Dairy & Alternatives:** good source of calcium
- Fats/oils:** helps body absorb vitamins, source of energy

YouTube



See FoodTech 101 for all KS3 practicals

Energy value of the major 'macronutrients':
 Fat: 37kJ (9 kcal) per gram
 Carbohydrates: 17kJ (4 kcal) per gram
 Protein: 17kJ (4 kcal) per gram



Function of ingredients in bread:

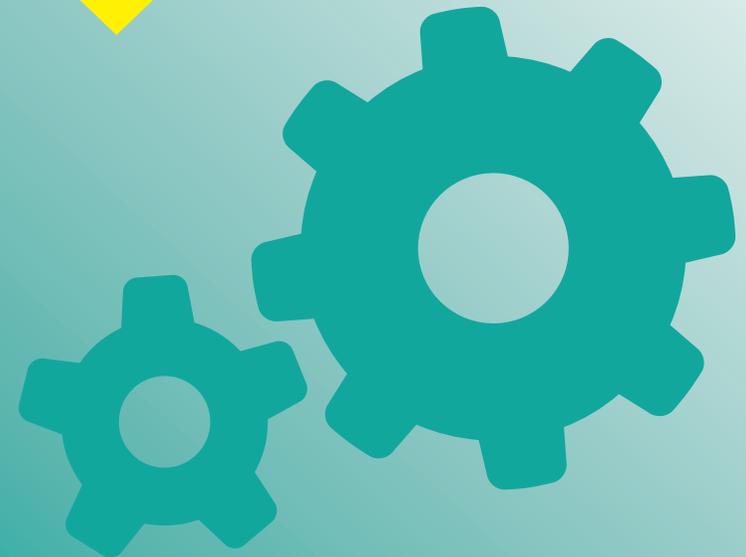
- Butter: adds moisture/ softens
- Flour: main bulking agent
- Water: helps combine ingredients
- Salt: used to add flavour
- Yeast: helps dough to rise
- Sugar: feeds/activates the yeast
- Warm water: perfect temp for yeast
- Oil: Prevents dough from sticking



How much of your daily calorie allowance is taken up with your favourite foods? Use the following formula to work it out:

$$\frac{\text{calories (in food)} \times 100}{\text{RDA}}$$

(RDA (recommended daily amount e.g. 1600 teen girl, 1800 teen boy)



Music

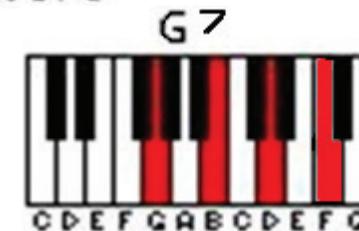
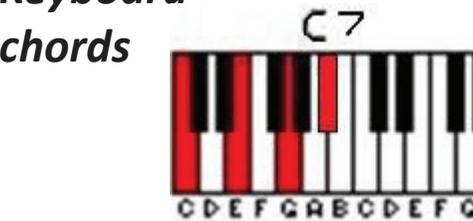


12 Bar Chord Structure in the key of C major

C	C	C ⁷	C ⁷
F ⁷	F ⁷	C ⁷	C ⁷
G ⁷	F ⁷	C ⁷	G ⁷ (C last time only)

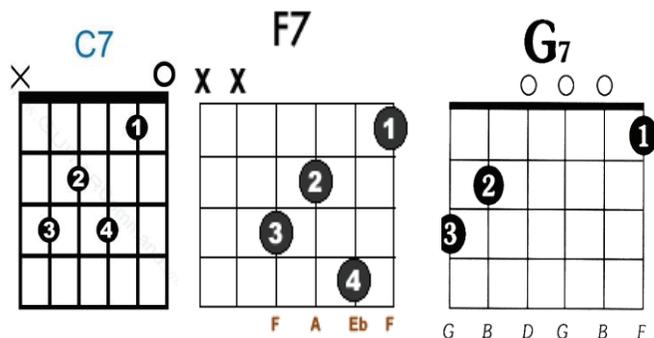
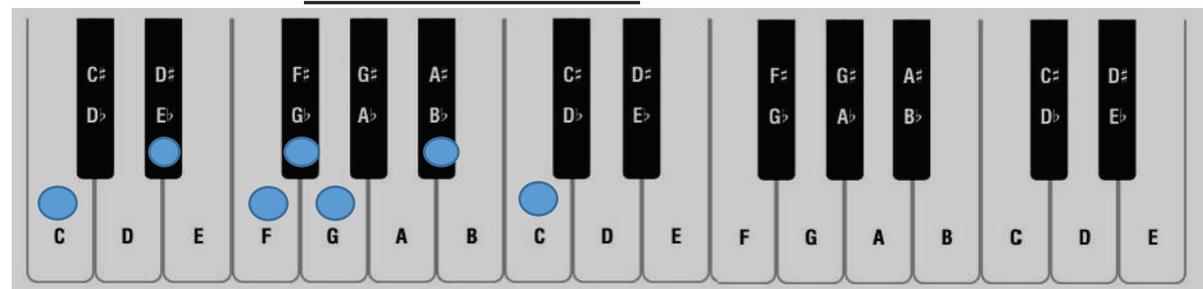
Each box is a bar of four beats. Play the lettered chord on every beat or hold it down for four beats. Some of you might like to try your own rhythm that adds up to four beats.

Keyboard chords



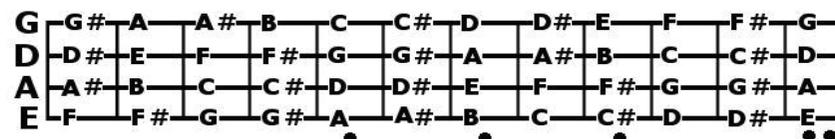
Key words Sad rhyming lyrics, improvisation, 12 bar chord structure, repetition, flat, sharp and blue notes.

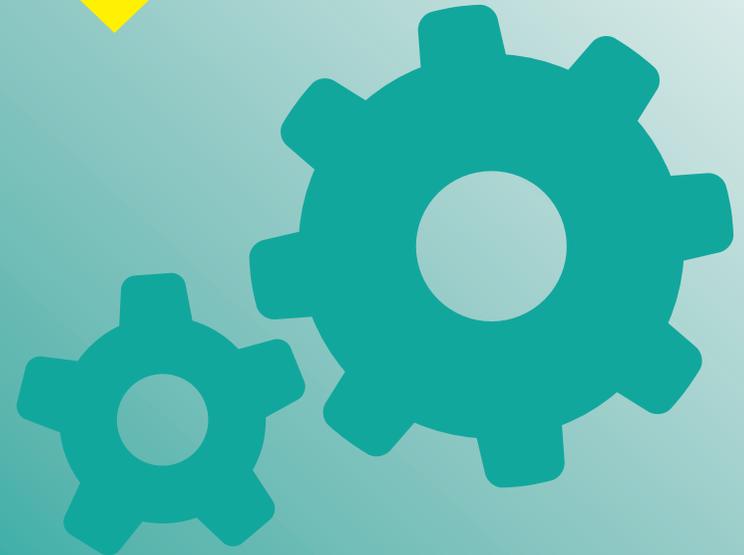
Blues scale notes



Guitar chords

Bass guitar





Sport



Forehand Clear

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

Stage one

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

Stage two

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

Stage three

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

Stage four

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

Forehand Drop Shot

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

Stage one

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

Stage two

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

Stage three

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

Stage four

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

Forehand Smash

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

Stage one

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

Stage two

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

Stage three

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

Stage four

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



Passing – there are a number of different passes such as, the push pass and the slap pass/hit

Stage one- maintaining correct hockey posture of straight back and bent knees, stand sideways on to the ball with your right foot inline with the ball and your left foot pointing in the direction the ball will be passed. The stick and ball remain in contact until the release point which is in line with the left foot .

Stage two- complete a push pass whilst dribbling with the ball on open stick, still keeping contact with the stick and ball until release point - this time the direction of the ball can be changed by pushing the ball across your body whilst dribbling but still releasing the ball on the left foot.

Stage three – releasing the ball off the right foot, whilst dribbling the ball can be pushed passed off the right foot, this pass will be disguised , there will be limited contact time with the stick and the ball before release

Dribbling – this enables us to run with the ball

Stage one - maintaining the correct hockey position of straight back and bent knees. Keep the ball on the open stick side, you can use a clock reference e.g. dribble with the ball at 2 o'clock. The ball should remain on the right hand side of the participant and pushed out away from their feet so that they can move easily without kicking the ball .

Stage two- open to reverse stick dribbling, the ball will now move between 1 and 11 o'clock on the clock face reference (side to side), whilst keeping contact with the ball on the flat side of the stick, the left hand at the top of the stick will do the turning , and the right hand will act as a guide and will allow the stick to turn.

Stage three- v-drag elimination- using the previous 2 stages, the participants will dribble the ball towards their opponents stick side and engage the defender, they will then drag the ball back (bottom point of the V) and drive with the ball towards the defenders non stick side

Tackling- this is how we win possession of the ball

Stage one - block tackle pick up. Participants will lead with their left hand at the top of the stick, they will keep their stick parallel to the ground , they will squeeze the ball between them and their partners stick and pick up the ball (flat side of the stick)

Stage two - participant A will dribble straight with the ball, whilst Participant B will perform a block tackle, they will get low to the ground , they will lead with their left foot followed by their left hand, keeping their stick parallel to the ground. Their right hand remains on the stick and will provide the strength in the tackle.

Stage three - the participant with possession of the ball will dribble open to reverse stick , the tackling participant will need to track the ball and time their tackle to maintain good contact with the ball and not to make contact with the oppositions stick.

Tick List

Passing:

- Sideways on
- Low to the ground
- Left foot pointing in the direction of the pass
- Stick and ball contact unit release
- Passing off both left and right feet

Dribbling

- Correct hockey posture
- Contact with the flat side of the stick
- Open stick ball positioning – 2 o'clock
- Open to reverse stick dribbling
- Elimination skills finding the none stick side

Tackling

- Stick parallel to the ground
- Leading with left foot
- Right hand provided the strength in the tackle



Sport - Gymnastics

Key Components of Fitness, Key Terms & Chronology



Key Components of Fitness for Gymnasts

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

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

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

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

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

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

Gymnastics Key Terms

Apparatus The equipment used in gymnastics.

Balance Position A static position, holding a distinct shape.

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

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

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

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

Pivot A turn on the ball of the foot.

Plié Feet angled at 90 degrees.

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

Spotting Spotting a landing before take off.

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

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

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

Gymnastics Chronology

2000 BC Gymnastics activities are depicted on Egyptian artefacts

1804 The Crown Prince of Denmark believes gymnastics to be useful for military training and creates the Military Gymnastic Institute in 1804.

1928 The first women's Olympic competition (synchronised calisthenics) is held in Amsterdam.

1964 The first Trampoline World Championships are held in London, UK.

1984 Rhythmic gymnastics is introduced as an Olympic sport in Los Angeles, USA.

2001 The traditional vaulting horse is replaced with a new apparatus, known as a tongue or table, which is ultimately more stable and therefore safer.

2008 Louis Smith is the first British Individual gymnastics medalist in a century, at the 2008 Beijing Olympics, claiming bronze in the pommel horse final.

<https://www.livestrong.com/article/497802-5-components-of-fitness-in-gymnastics/>



Sport - Gymnastics

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



Travelling

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

Standing Upward Jump

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

Forward Roll

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

Cartwheel

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

Headstand

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

Headspring

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

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Training Methods

Training can be aerobic or anaerobic. In aerobic exercise, which is steady and not too fast, the heart is able to supply enough oxygen to the muscles. Aerobic training improves cardiovascular fitness. Anaerobic exercise is performed in short, fast bursts where the heart cannot supply enough oxygen to the muscles. Anaerobic training improves the ability of the muscles to work without enough oxygen when lactic acid is produced.

Specific training methods can be used to improve each fitness factor. Circuit training involves performing a series of exercises in a special order called a circuit. Each activity takes place at a 'station'. It can be designed to improve speed, agility, coordination, balance and muscular endurance. Continuous training involves working for a sustained period of time without rest. It improves cardiovascular fitness. Cross training involves using another sport or activity to improve your fitness. It happens when an athlete trains in a different environment. For example a volleyball player uses the power training for that sport to help with fitness for long jump. Fartlek training or 'speed play' training involves varying your speed and the type of terrain over which you run, walk, cycle or ski. It improves aerobic and anaerobic fitness. Interval training involves alternating between periods of hard exercise and rest. It improves speed and muscular endurance. Weight training uses weights to provide resistance to the muscles. It improves muscular strength (high weight, low reps), muscular endurance (low weight, high reps, many sets) and power (medium weight and reps performed quickly).

Advantages and Disadvantages of Training Methods

Continuous Training

Good for aerobic fitness, lose weight accessible, health benefits, good for beginners of all ages, little equipment Boring, not always sport specific, risk of injury does not improve anaerobic fitness

Fartlek Training

Good for team sports, less boredom, easy to use, can mimic the sport, good for team sports Too easy to cheat, can be difficult

Circuit Training

Less boring, easily adapted for fitness/skill, easily adapted to sports, stations can target specific muscle groups Take time to set up, requires equipment

Interval Training

Can be both aerobic and anaerobic, less technical, can mimic a sport, good for sports that require a change of pace Can be boring, easy to cheat hard aspects,

Free weights

Full range of sporting movement, large muscle groups can be worked Risk of injury, need a spotter, more suitable for advance performers, requires good knowledge

Resistance machines

Safer, good for beginners, good for injury rehabilitation Expensive, no functional everyday movements, only focuses on one muscle group

Training Zones

Anaerobic Threshold
80-100%
Peak Performance
80-90%
Aerobic Fitness
70-80%
Aerobic
60-80%
Fat Burning
60-70%
Active Recovery
60%
Warm-up Cool-down
50%



Serve

A volleyball serve can be hit either overarm or underarm. A player is allowed to travel with the ball and jump whilst serving, and providing it reaches the opponent's court, it is deemed legal.

Stage one

Stand in position on the balls of your feet, with knees slightly flexed.

Face forwards with your chest facing towards the target. Hold the ball in front of your body with left hand, right hand held back. Body weight should be on the back foot.

Stage two

Throw the ball gently into the air, swing the straight arm forward to strike underneath the ball with the heel of the hand, with your fingers clenched. Transfer bodyweight from back to front foot.

Stage three

Follow through with the fist pointing towards the intended target or the sky.

Dig

The dig shot requires players to get low and to stop the ball touching the ground. When completed successfully the shot provides accurate and consistent passing, which is essential to create a multiple attack.

Stage one

Stand in position on the balls of both feet, with knees slightly flexed. Drive off from legs to get towards the path of the ball.

Stage two

Keep both eyes on the ball. Place the back of the right hand on top of the palm of the left hand. Bring both thumbs together and place them side by side. Keep fingers and thumbs close together. Lock your elbows together.

Hold arms out straight in front.

Stage three

Hands start low in front of the body and swing up to strike the ball upwards. Strike the ball with the lower forearms. Follow through with the hands pointing towards the intended target or the sky.

Set

The set shot is a delicate attacking shot that is an important part of the pass-set-spike sequence required for a successful attack.

Stage one

Stand in position on the balls of your feet, with knees slightly flexed. Drive off from legs to get towards the path of the ball. Call for the ball. Get in line with the ball's path. Keep your eyes on the ball at all times.

Stage two

Move towards the ball. Extend your elbows so that your arms are out in front of you at head height. Slightly flex your elbows. Have your palms facing up and fingers spread. Keep your eyes on the ball.

Stage three

Watch the ball. Face the ball in ready position with knees slightly flexed. Hands are held above the head, palms up. Move body underneath the ball and push the ball into the air with your fingertips. Extend knees to help with the push into the air. Follow through with fingers pointing at the sky.

Block

The block is not technically a maintaining possession shot, but a well-timed and effective block diffuses an offensive attack.

Stage one

Stand in position on the balls of your feet, with knees slightly flexed. Drive off from legs to get towards the path of the ball. Get in line with the ball's path. Keep your eyes on the ball at all times.

Stage two

Move towards the ball. Extend arms up above head. Have your palms facing forward and fingers spread. Keep your eyes on the ball.

Stage three

Upon contact, try to angle the ball downwards. Begin to land move arms outwards for balance. Flex knees to help cushion landing. Get back into position to regain formation.