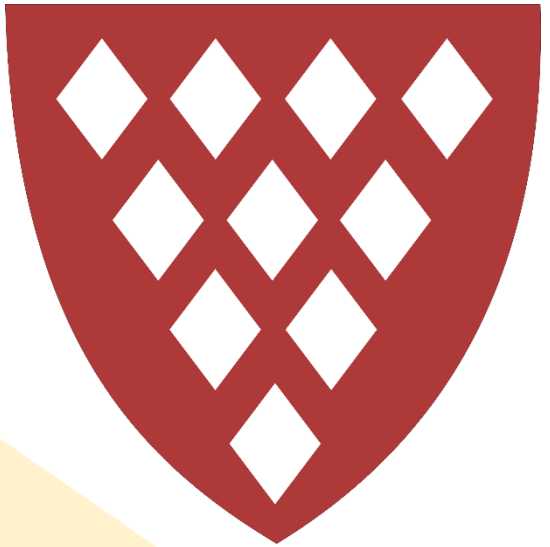
KNOWLEDGE ORGANISER BOOKLET

YEAR 8 – CYCLE 1

2025 - 2026



Name:

Tutor Group:

Contents

Instructions for Use

For all of your subjects, there are certain **facts** that you **need** to know in order for you to best understand the content you study in lessons.

In this booklet are ***Knowledge Organisers*** for each subject which contain the core concepts that you have to know to be successful in your lessons.

The **first 15 minutes** of Home Learning is the same in all subjects (apart from Maths) and should be completed in your single **Home Learning exercise book**:


Look: read a specific section of the *Knowledge Organiser*.


Cover: cover it over or put it to one side;


Write: from memory, write out as much of the information as you can remember for that section;


Check: check back with the *Knowledge Organiser*. Anything missing or incorrect, add in purple pen.


Review: information you didn't recall the first time you may wish to check in a different format, such as repeating the process or creating revision cards.

The next lesson, your teacher will check that you have completed this process and you will be quizzed in your subject lesson to see what you can recall.

Instructions for Use : Example

Show My Homework **for Geography says: ‘Knowledge Organiser: How to Read Grid References’.**

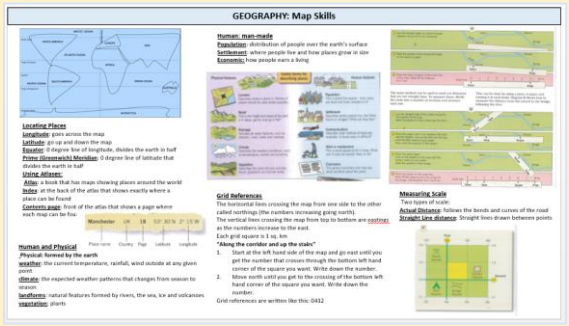
1. L**OOK:** carefully read the section of the *Knowledge Organiser* which you are learning.

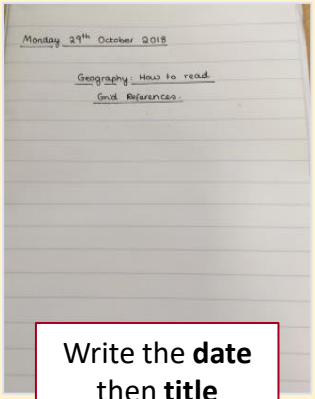
2. **COVER:** cover it over or put it to one side.

3. **WRITE:** write out as many details as you can from memory.

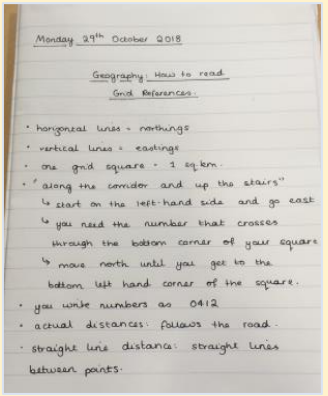
4. **CHECK:** check back over your answer with the *KO*. Anything which is missing or incorrect, add in in **purple pen**.

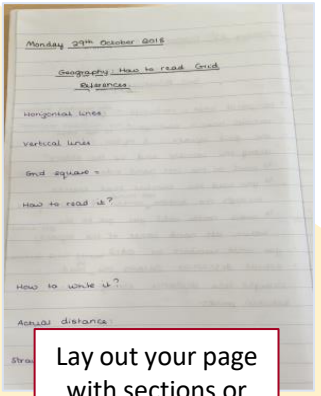
5. **REVIEW:** if you had significant gaps or parts you didn’t understand, repeat the process from Step 1



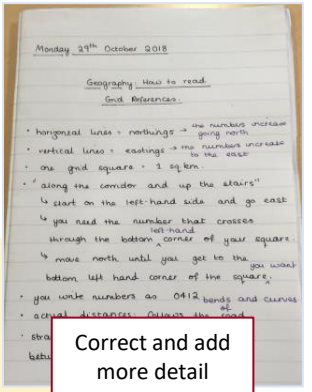


Write the **date** then **title** (**subject: focus**)





Lay out your page with sections or questions to help



Correct and add more detail using your purple pen.

sparx is your Maths homelearning

You do not have a knowledge organiser for maths. This is because the best way to remember and understand mathematics is to do it. Write your Sparx password in the space below so you don't forget it.

Sparx username: ……

Sparx password: ……

How do I log on?

Go to www.sparxmaths.uk. Select ***Kingsbridge Academy*** and enter your username and password.

What do I have to do each week?

Complete all of your Compulsory Section Sparx homework and get it 100% correct. If within your hour of home learning time you should complete the target and optional sections which are designed to help you make better progress in Maths.

How long should it take?

Sparx will adjust your homework so it should take about 1 hour. If you find yourself taking longer than this you should make sure you are coming for help on the difficult bits.

When should I do it?

You should complete your Sparx homelearning in the 4 allocated 15 minute slots in your homelearning timetable

What if I get stuck or can't do it?

You can watch the videos, ask a friend or parent or ask a maths teacher (in person or by email).

Why do I get different questions to my friend?

Sparx creates a custom homework just for you – because you are an individual. We are really pleased that we are able to offer you personalised homework.

Why do I have to do 100%?

We care about you and believe that you deserve to do well in maths. Students who do all questions learn more and get better results.

Questions to ask about poems:

What?

- What is the mood/tone/feeling of the poem?
- What does the writer want the reader to think or feel?
- What is the message in the poem?

How?

- How does the writer show the tone/mood/feeling?
- How does the writer use language to affect the reader?
- How is the message shown in the poem?

Why?

- Why might the writer want the reader to feel this tone/mood/feeling?
- Why does the writer want to have this effect on the reader?
- Why is the message important?

What does structure mean in poetry?

Structure in poetry covers the following things:

- The focus of each stanza (e.g. The first stanza focuses on description. The second focuses on emotion.)
- Anything that is repeated – a word, phrase, line, image or even whole stanza
- Any links between different parts of the poem
- How the ending compares to the beginning
- The journey the poem takes us on

What are the different elements of a metaphor or simile?

Metaphor and **simile** are both types of figurative imagery. This means that they need interpretation. Metaphors and similes are both made up of 3 different elements:

tenor – the **subject** of the metaphor, and its meaning

vehicle – the thing that is being **compared with** the tenor.

ground – the **connection or relationship** between the tenor and the vehicle, that helps us to understand the subject in a new way.

Exploring Poetry

Helpful words for writing about themes in the poems:

revenge

consequence

conflict

identity

freedom

responsibility

tyranny

aspirations

justice

oppression

liberty

society

Year 8 Cycle 1 – Exploring Poetry (2)

	Key Word	Definition	Example
1.	**verse**	Poetry or parts of a poem – a single line, a stanza, or the entire poem	'Long Way Down' is a novel that is written in **verse**.
	prose	Fiction writing in the 'normal' form of paragraphs and full lines.	Animal Farm is written in **prose**.
	line break	(In poetry) where the writer decides that one line ends and another line begins.	**Line breaks** can be used to emphasise a specific word by placing it at the beginning or end of a line.
	voice	The person – or character – behind the words in a text, and the way that person or character sounds.	The character of Will provides the **voice** of 'Long Way Down'.
	simile	A form of imagery that describes something in terms of a comparison with something else, using the words 'like' or 'as'.	They beat him **'soft like clay'.** (from *Not My Business')*
	metaphor	A form of imagery which describes something in terms of a comparison with something else. Doesn't use 'like' or 'as'.	'Hope is the thing with feathers' (from *Hope*).
	repetition	Choosing to use the same word, phrase or image several times.	*Not My Business* uses **repetition** to show that the same events keep happening.
2.	**anagram**	A word or phrase made by rearranging the letters of another word.	The word 'listen' is an **anagram** of 'silent'.
	stanza	The equivalent of a paragraph within a poem: a group of lines arranged together on the page.	*Not My Business* is written in four stanzas.
	theme	An idea or concept that is explored across a literary text.	Animal Farm explores the **themes** of power and education.
	motif	A **motif** is a repeating image in a text that suggests, represents or symbolises something else.	The elevator **motif** in 'Long Way Down' may represent Will's sense of feeling trapped by the rules.
	symbol	A **symbol** is something that represents something else. Very often, the symbol is something physical (we could touch it), and it represents something abstract (we can't physically touch it.	In *Nettles*, the nettle could represent all the painful events from which the father can't protect the child.

Year 8 Cycle 1 – Exploring Poetry (3)

	Key Word	Definition	Example
3.	**ambiguous**	Open to more than one possible (and valid) interpretation.	The end of 'Long Way Down' is intentionally **ambiguous**: we don't know what Will will do.
	annotation	Notes and comments that we write around a text to record our thinking.	Our **annotations** remind us of what we thought about a text.
	imagery	'A picture made out of words': if something is described in a way that you could *imagine* through your senses, it is imagery.	'When you died your hair blue (or, at least ultramarine for the flipped sides, with a crest of jet-black spikes on top)' (from *For Heidi With The Blue Hair).*
	academic writing	Formal, precise writing which is used to express ideas carefully and in detail.	In our essays, we need to use an **academic writing** style.
	colloquial language	The language of everyday speech: it is **informal** and casual, and is more often heard than seen written down	Using the word 'beef' instead of argument; using the phrase 'kicked the door down'.
4.	**end-stopping**	Where a line of poetry ends with the end of a phrase or sentence, clearly marked with punctuation. Only used in relation to poetry.	Armitage's use of **end-stopping** in *'About His Person'* may represent the finality of death.
	enjambment	Where a sentence or phrase runs over from one line of poetry to the next, across the **line break**, with no end-of-sentence or end-of-phrase punctuation at the end of the lines. Only used in relation to poetry.	Seatter's use of **enjambment** in *'I Come From'* may represent the speaker's sense of freedom.
	juxtaposition	Where two things or images are placed next to each other, to show up the difference or contrast between them.	The phrase 'nettle bed' **juxtaposes** the pain and discomfort of nettles with the comfort of bed. (from *Nettles*).
	alliteration	The repetition of the same sound at the start of words that are next to each other or close together.	The sentence 'She sells seashells on the seashore' uses alliteration of 's'.
5.	**concrete noun**	A word that is used to name a physical object.	The words table, chair and pen are all **concrete nouns.**
	abstract noun	A word that is used to name ideas or concepts.	The words love, conflict and freedom are all **abstract nouns.**
	personification	A form of imagery where a non-human object is given human qualities (i.e. described like a person). Can be used to describe abstract ideas.	In *Nettles*, the plants are **personified** when they are referred to as 'tall recruits'.
	semantic field	A group of words that are all associated with the same topic.	The words 'battle', 'army', 'weapon' and 'fight' all belong to the **semantic field** of war.

Year 8 Cycle 1 – Exploring Poetry (4)

	Key Word	Definition	Example
5.	**structure**	The arrangement or organisation of ideas within a whole text; how different parts of something are put together.	Armitage structures *Not The Furniture Game* by arranging most lines to start with the word 'and'.
	onomatopoeia	A word that creates a vocal representation of a sound when it is said.	Words such as 'cuckoo' and 'sizzle' are examples of **onomatopoeia**.
	rhyme	Words that have the same final sounds. Note that rhyme is about *sounds* – the spellings of the word endings might not be the same. A pattern of rhyme in a poem is called a **rhyme scheme.**	Carroll uses a regular **rhyme scheme** in the poem *Jabberwocky*.

Extension Reading

One of the best ways to become better at understanding poetry it to read more of it! There are loads of poetry books in the college library. The websites below are also great (free) places to access poems. When you find a poem that you like, try thinking analytically about it or have a go at writing your own poem in the same style.

- https://poetrybyheart.org.uk - Poetry By Heart, a website that collates poems for students and teachers. Have a look at their poetry timelines as a starting point.
- www.simonarmitage.com - website of Simon Armitage, the current Poet Laureate. The site includes the poems written in his role as Poet Laureate plus additional information about his life and work.
- www.poetryfoundation.org - Search for poets by name or topic. Includes videos and podcasts related to poetry. Also includes a glossary of poetic terms.
- https://www.ted.com/talks/oscar_schwartz_can_a_computer_write_poetry - Ted Talk by Oscar Schwartz exploring the question of whether computers are truly able to write poetry.
- https://childrens.poetryarchive.org - Poetry selections aimed at young people which can be searched by poet or theme.

KO Year 8 Cycle 1: Electricity

Lesson 1 Static Electricity

Static Electricity is when two objects are rubbed together, electrons are transferred from one object to the other. One object becomes positive and the other negative.

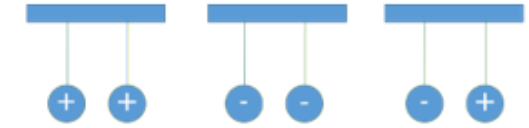
Charge is a property of matter and can be positive or negative.

Charged atoms are called **ions.**

Charge of materials

- A material which **loses electrons** will become **positively charged.**
- A material which **gains electrons** will become **negatively charged.**

Like and unlike charges

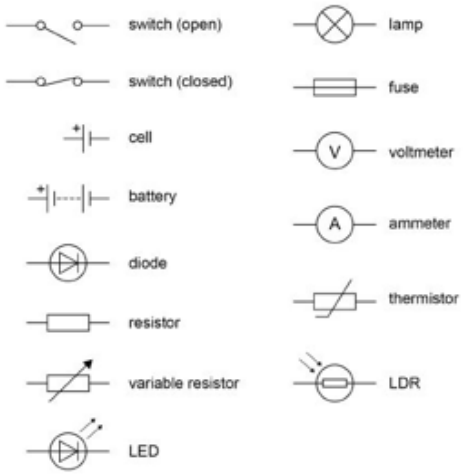


- Like charges repel
- Unlike (opposite) charges attract

Van der Graaf generator is an electrostatic generator which uses a moving belt to accumulate electric charge.

Lesson 2 Circuit Symbols

Standard circuit diagram symbols



Rules for drawing simple circuits

- All the wires in your circuit are straight lines.
- That the circuit is closed.

Lesson 3 Electric Current and pd

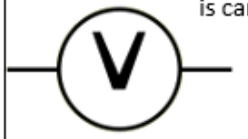
Current is the flow of charge – the movement of electrons. The electrons just keep going!

The **units** for current are **Amperes (A)** – sometimes just called **Amps.**

Current is **measured** with an **ammeter and the diagram symbol is below.**

Potential difference (p.d.) – sometimes called **voltage** is a measure of the energy carried around a circuit.

The higher the potential difference, the more energy that is carried by the electrons.

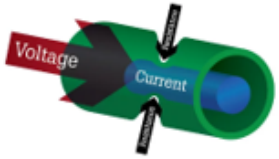


p.d. is **measured** with a **voltmeter.**

The **units** for **potential difference** are **volts (V)**

Lesson 4
Resistance

Resistance is a measure of how hard or easy it is for a current to flow.



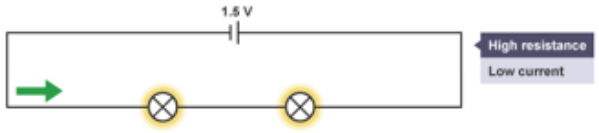
Resistance is measured in Ohms (Ω)

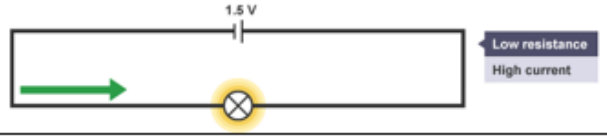
Resistance happens because the ions that make up a metal are constantly vibrating.

The more the electrons are slowed down the higher the resistance

The following factors effect resistance.

- As the length of the wire increases resistance increases
- As the thickness of the wire increases resistance decreases





Lesson 5
Circuit Models

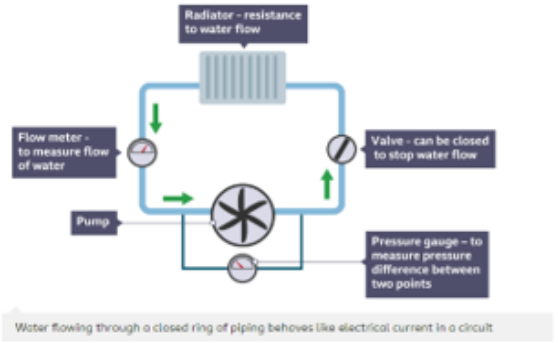
Models can be used to help us understand electrical circuits.

One example is the water model of electricity, using a central heating system:

the pump acts like the cell or battery
the pipes are like the wires
the radiator is like a component, for example a lamp, transferring energy to the room
the water flow is like the electrical current

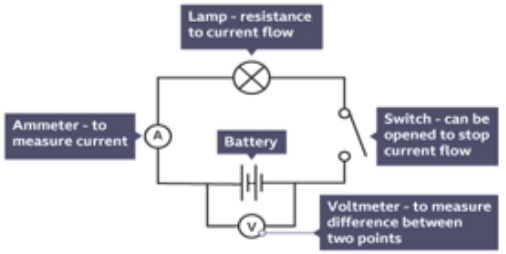
In many ways, electrical current behaves like water flowing through a closed ring of piping. The movement of the water through the pipe is like the movement of electrons through a circuit.

The diagram shows a central heating system.



Water flowing through a closed ring of piping behaves like electrical current in a circuit

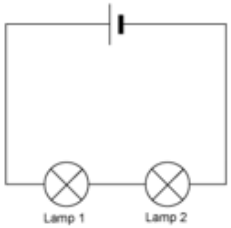
This circuit diagram represents the water model



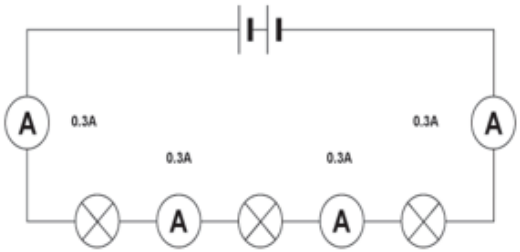
KO Year 8 Cycle 1: Electricity

Lesson 6
Current in Series Circuits

You will Investigate how current changes in a series circuit and how increasing the **number of bulbs** in a **series circuit** decreases the brightness of the **bulbs.**



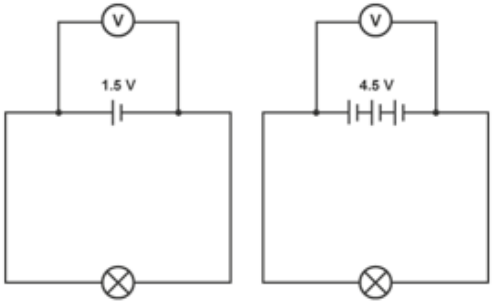
Current is the same everywhere in a series circuit



Lesson 7
Potential Difference in Series Circuits

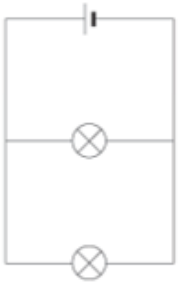
You can measure the potential difference across a cell or battery.

If the two or more cells point in the same direction, the more cells, the bigger the potential difference.



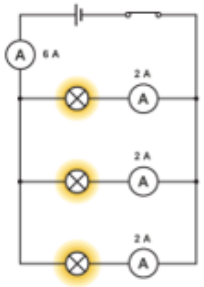
Each cell has a potential difference of 1.5 V, so three cells give 4.5 V

Lesson 8
Current in Parallel Circuits



A parallel circuit has more than one loop – there is more than one way for current to flow.

If one part of the circuit breaks – for example, a bulb blows – the rest of the circuit is still complete and a current will flow through that part.



The total current in a parallel circuit is equal to the sum of the currents in each branch.

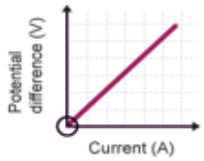
6 Amps
3 Parallel circuits
2 Amps in each branch

Lesson 9
Potential Difference in Parallel Circuits

Potential difference (p.d.) – sometimes called voltage is a measure of the energy carried around a circuit.

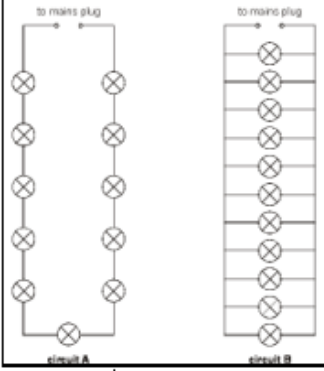
Potential difference changes at different places in a parallel circuit.

If you plot a graph of current against potential difference for a wire, you get a straight line.



The gradient of the line is equal to the resistance of the wire

Possible ways to set up fairy lights.

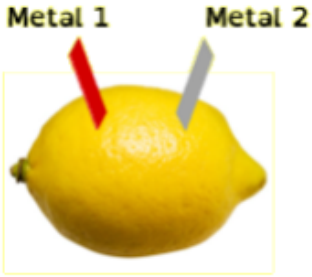


Circuit A – if one bulb breaks all go out, but needs fewer wires/less wire

Circuit B – needs more wires/more wire, but if one bulb breaks the others stay on

Lesson 10
Fruit Batteries

If two metals are inserted into a fruit, a potential difference will flow.



Chemical energy within the fruit is transferred by an electric current to the voltmeter.

Any citrus fruit such as lemons, limes, oranges and grapefruit will work because they all contain citric acid for the electrolyte.

You can investigate which metal makes the best fruit battery out of Copper, Aluminium, Iron and Zinc.

KO Year 8 Cycle 1: Human Nutrition & Digestion

Science

Lesson 1 Nutrients

Diet – What you eat.

Food is needed for:

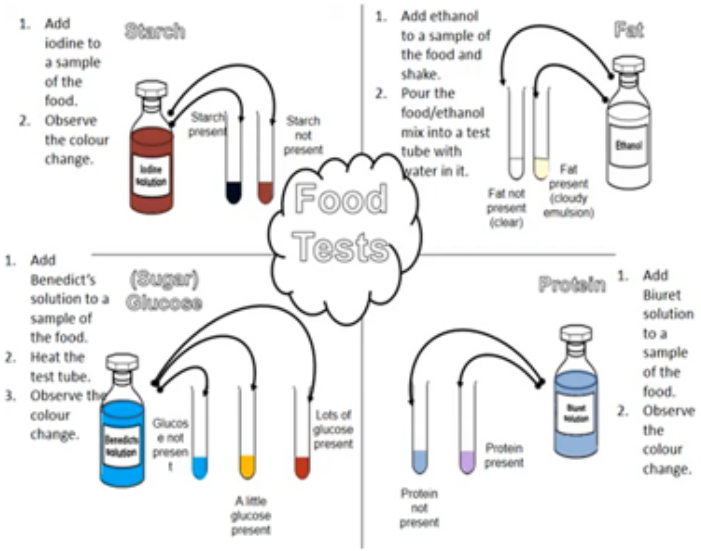
1) Energy
2) Growth & Repair
3) Health

There are 7 different food nutrients

Name of nutrient	Function
Carbohydrate	Energy
Vitamins	Health
Fats (lipids)	Energy & warmth
Fibre	Helps food move through digestive system
Protein	Growth & repair
Water	Helps keep cells hydrated
Minerals	Health

Lesson 2 Food Tests

Foods can be tested to identify which nutrients they contain



Lesson 3 Energy Requirements

On average, women should have around 2,000 calories a day and men should have around 2,500 calories a day.

We all need different amounts of energy (or calories) from food to be a healthy weight.

How much you need depends on lots of things, including how active you are.

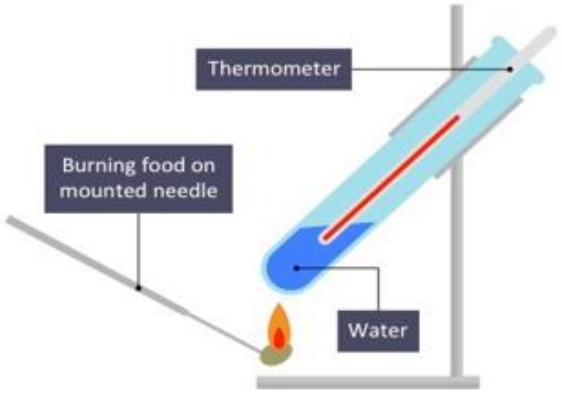
Recommended Daily Nutritional Requirements for Different Age Groups

Category	Age (years)	Protein (g)	Fat (g)	Calories (kcal)	Calcium (mg)	Iron (mg)
Children	2–3	16.7	27	1060	600	9
Children	4–6	20.1	25	1350	600	13
Children	7–9	29.5	30	1690	600	16
Boys	10–12	39.9	35	2190	800	21
Boys	13–15	54.3	45	2750	800	32
Boys	16–17	61.5	50	3020	800	28
Adult (males)	Above 18	25	60	2320	600	17

Lesson 4
Comparing Energy in Foods

Food packaging gives us useful information about the food we are going to eat

We can compare energy content of a food by measuring how much heat energy is released when we burn it



Lesson 5
Unhealthy Diets

We need to eat a healthy balanced diet which contains the correct amounts of each of the food nutrients

Not eating enough of a nutrient means you have an unbalanced diet, and this can lead to a **deficiency.**

Obesity – if you take in more energy than you use, the excess energy is stored as fat.

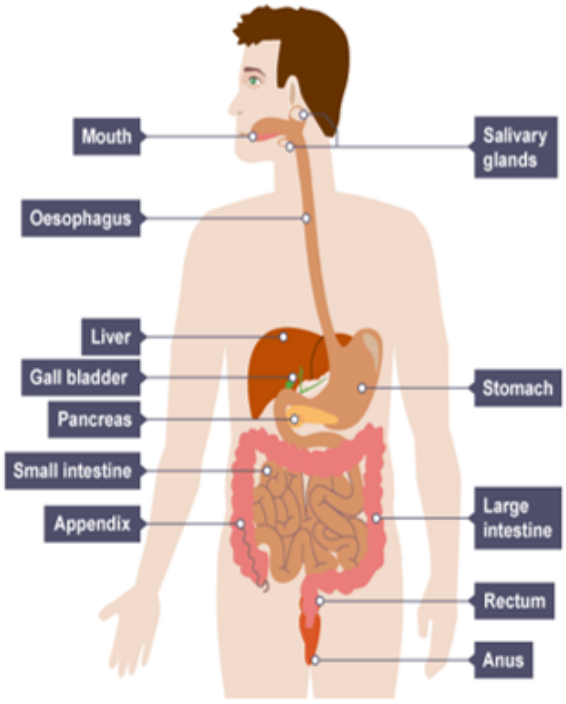
Overtime, this can lead to a person being overweight or obese.

Anorexia - An eating disorder where energy output and energy input are imbalanced, energy input is lower than energy output. Symptoms – extreme weight loss, thin appearance, fatigue, insomnia, dehydration

Lessons 6 & 7
Digestion

The digestive system breaks down food into tiny particles which are absorbed into the blood.

- These particles provide energy for the body to grow, repair itself and remain healthy.
- Food that cannot be broken down is released from the body as faeces (poo).



Organ	Function
Mouth	Chew food, break into smaller bits, start digestion off using enzymes in saliva.
Oesophagus	Tube connecting the mouth to stomach
Stomach	Sac where food is mixed with acidic juices to start digestion of proteins and kill microorganisms
Small intestine	Upper part is where digestion is completed. Lower part where nutrients are absorbed into the blood.
Large intestine	Water from food is removed here, and faeces made.

Lessons 8 & 9
Digestive Enzymes and Bacteria

Enzymes are biological **catalysts**, they speed up the digestion of **nutrients**

- Each enzyme is specific to each nutrient

- The way the enzyme and nutrient bind with each other is called a lock and key model

Carbohydrase's break down **carbohydrates** into **sugars**

Proteases break down **proteins** into **amino acids**

Lipases breakdown fats into **fatty acids** and **glycerol**

Gut Flora – the "good bacteria" that live in your digestive system, useful for digestion, helpful for immunity and boosts vitamin levels.

KO Year 8 Cycle 1: The Earth & Atmosphere

Lesson 1
Combustion

Combustion is a chemical reaction where a fuel reacts with oxygen.

Fuel: A chemical energy store that releases energy when burned in oxygen

fuel + oxygen → carbon dioxide + water

We can test for the products of combustion using chemical tests:

TEST	Observation
limewater	Turns cloudy in the presence of carbon dioxide
cobalt chloride paper	Turns from blue to pink in the presence of water vapour

Complete combustion occurs in excess oxygen.

Incomplete combustion occurs in a limited supply of oxygen.

Lesson 2
Fuels Investigation

Independent Variable:
The one thing you **change** in an experiment.

Dependent Variable:
The thing you **measure** in an experiment.

Control Variable:
All of the things you **keep the same** in an experiment.

Mass is measured with a top pan balance and its units are grams (g) or kilograms (kg)

Temperature is measure with a thermometer and its units are degrees Celsius (°C)

Lesson 3
Fuel Pollutants

When fuels are burned, a number of atmospheric pollutants are produced.

Pollutant	Source
Carbon dioxide, CO_2	Complete combustion of any fuel containing carbon atoms
Carbon monoxide, CO	Incomplete combustion of any fuel containing carbon atoms
Particulate carbon, C (soot)	Incomplete combustion of any fuel containing carbon atoms
Unburned hydrocarbons	Hydrocarbon fuel molecules which have not been oxidised at all
Sulfur dioxide, SO_2	Combustion of a fossil fuel which contains sulfur impurities
Nitrogen oxides, NO_x	Oxidation of atmospheric nitrogen inside the engine of a car, lorry, etc

CO is toxic as it prevents oxygen binding with red blood cells

C (soot) irritates the lings and causes global dimming

SO_2 & NO_x produce acid rain: Acid rain harms and kills plants and animals, especially those that live in aquatic environments. It can also damage man-made objects like statues and buildings.

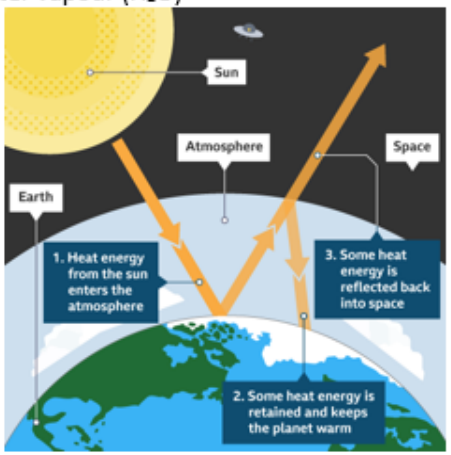
Lesson 4
Atmosphere & Greenhouse Effect

Greenhouse gases are gases in the atmosphere that act like a blanket around the Earth, trapping the heat that radiates from the surface of the Earth and preventing it from escaping back out into space.

This is called the greenhouse effect, and it's what keeps the Earth warm enough to sustain life. Without greenhouse gases, the Earth would be too cold at night for plants to grow or for animals to survive.

There are three main greenhouse gases:

- carbon dioxide (CO_2)
- methane (CH_4)
- water vapour (H_2O)



Lesson 5
Global Warming

As a result of human activities, the levels of greenhouse gases in the upper atmosphere are rising rapidly. These greenhouse gases are causing a lot more heat energy to be trapped in the atmosphere. As a result, the overall average temperature of the Earth is increasing. This is known as global warming.

How are greenhouse gases produced by humans:

- Burning Fossil Fuels
- Farming
- Deforestation

Global warming is leading to **climate change**, which is already having many serious impacts on our planet.

- More extreme weather events:
  - Heatwaves
  - Forest fires
  - Storms
  - Droughts
  - Floods
- More unpredictable weather
- Sea level rise

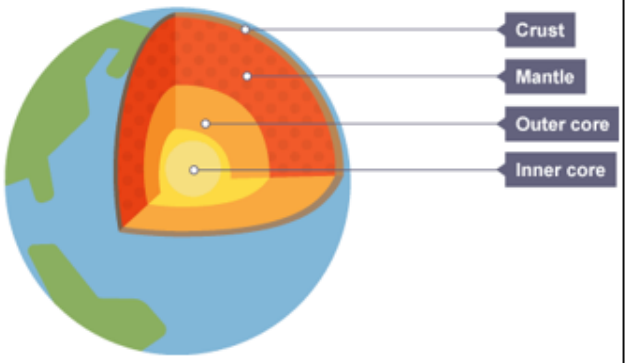
All of these factors are having an impact on habitats around the planet leading to the potential extinction of some plants and animals.

Lesson 6
Structure of the Earth

The Earth is a planet and is roughly the shape of a sphere. There are three layers that make up the Earth's structure.

The three layers, starting from the outside, are:

- the crust – the rocky outer layer
- the mantle – the semi-solid middle layer
- the core - the innermost layer which is divided into an inner core and outer core



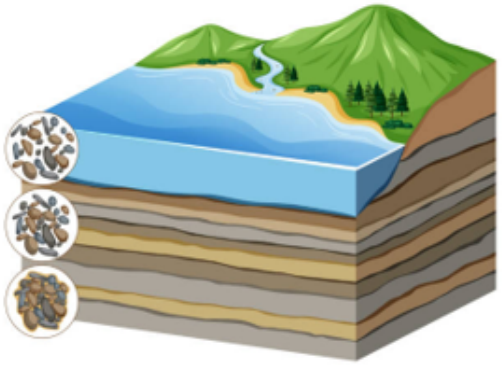
The crust is made of huge pieces of land called tectonic plates which fit together like a huge jigsaw. These plates move around very slowly. The tectonic plates only move a few centimetres each year.

Lesson 7
Sedimentary Rocks

The grains in sedimentary rocks are arranged in layers. The oldest layers are at the bottom and the youngest layers are at the top.

Chalk, limestone, shale, and sandstone are all examples of sedimentary rocks.

All these different sedimentary rocks are formed from the broken remains of other rocks that become joined together.



There are five processes that make a sedimentary rock:

- transport
- deposition
- sedimentation
- compaction
- cementation

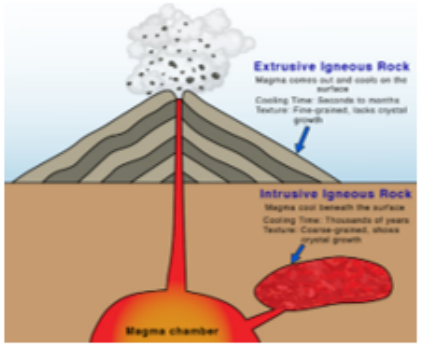
Lesson 8
Igneous Rocks

The inside of the Earth is so hot that rocks deep underground are often liquid.

Molten (liquid) rock underground is called **magma**.

Volcanoes can bring molten rock to the surface, which we call **lava**.

When the molten rock cools, it turns into a solid and igneous rock forms.



Extrusive igneous rocks are formed by magma that has erupted onto the surface as lava and then cooled quickly.

Intrusive igneous rocks are formed by magma that has cooled slowly, deep underground.

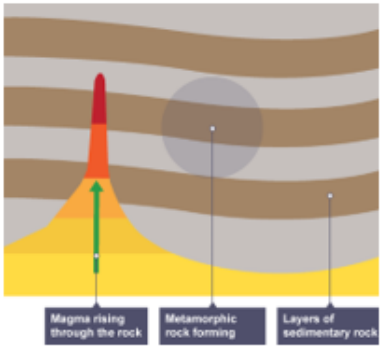
Lesson 9
Metamorphic Rocks

Metamorphic rocks are formed from other rocks which change due to heat or pressure.

The original rocks are usually sedimentary rocks or igneous rocks. Sometimes one metamorphic rock can be turned into a different metamorphic rock.

There are three stages involved in the formation of metamorphic rocks:

1. Earth movements cause rocks to be deeply buried or compressed.
2. This causes the rocks to be heated and puts them under great pressure.
3. They do not melt, but the minerals they contain are changed chemically, and form metamorphic rocks.



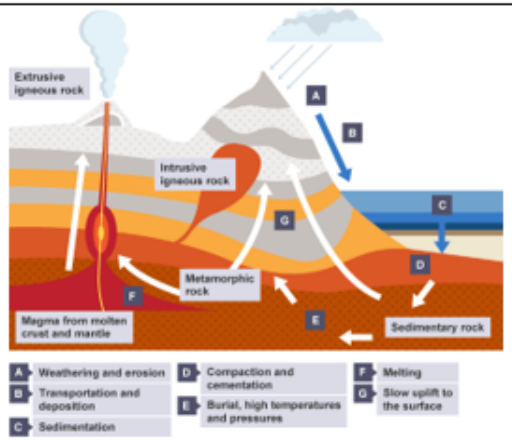
Lesson 10
Rock Cycle

Rocks on Earth do not always stay the same.

Rocks are continually changing due to processes such as weathering, erosion and large earth movements. The rocks are gradually recycled over millions of years, changing between the different rock types.

This recycling of rocks is a process called the rock cycle.

Weathering is one of the many processes that occur in the rock cycle



Weathering breaks down rocks on the surface of the Earth.

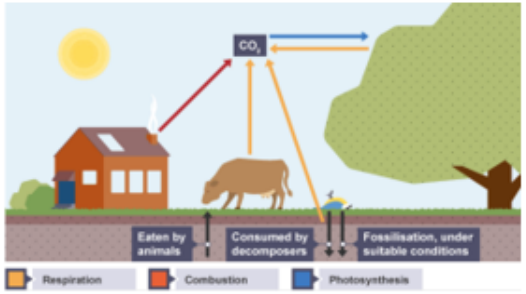
- Biological weathering
  This describes rocks being broken up by the roots of plants, or animals burrowing into them.
- Chemical weathering
  This describes rocks being broken up because substances in rainwater, rivers and seawater or the air, react with the minerals in the rocks.
- Physical weathering
  This describes rocks being broken up by changes in temperature, freezing and thawing of trapped water or the action of waves and rivers.

Another process of the rock cycle is **Erosion**.

Erosion is the process of moving the small pieces of rock formed by weathering. Erosion occurs from the action of water or wind.

Lesson 11
Carbon Cycle

The carbon cycle shows how atoms of carbon can exist within different compounds at different times and be recycled between living organisms and the environment.



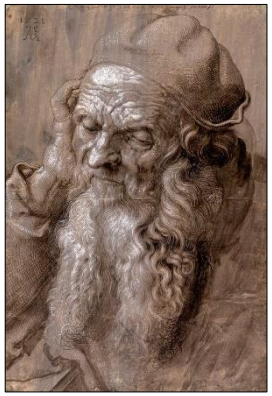
Carbon dioxide is absorbed by producers to make carbohydrates in photosynthesis.

Animals feed on plants, passing the carbon compounds along the food chain. Most carbon they consume is exhaled as carbon dioxide during respiration. The animals and plants eventually die.

Dead organisms are eaten by decomposers and carbon in their bodies is returned to the atmosphere as carbon dioxide. In some conditions decomposition is blocked. The plant and animal material may then be available as fossil fuel in the future for combustion.

Yr8 Art C.1 Tradition & Innovation

Artists' use traditional methods to create art. They also experiment and rebel against the 'rules' to create new ideas and ways of working.

1


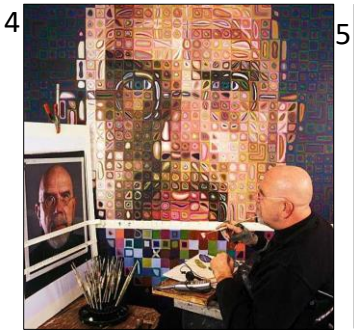
Drawing
'An Elderly Man'
By Albrecht Durer
1521
(Traditional Art)

2


Cubism Painting
By Jean Metzinger
1913 (Modern Art)

3

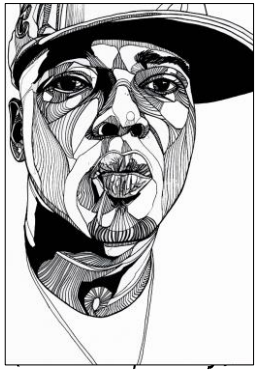

Photomontage
By Hannah Hoch
1925 (Modern Art)

4


Grid Painting
Chuck Close
2005 (Modern Art)

5


Portrait Collage
Veerle Symeons
(contemporary)

6


Art History- Key Terms & Facts:

1. Albrecht Durer (1471 -1528), was a German Renaissance artist. His work includes religious art, numerous portraits and copper engravings. In 1506 he wrote the "Treatise of Measurement". This included illustrations of 'the draftsman's net' which was a square wooden frame with a net of black threads forming a grid structure. The artist looked through the frame and copied the outlines of what he saw onto a piece of paper with a replica grid marked on it. This technique has been used by many artists since to aid observing, composing and drawing.

2. Jean Metzinger (1883- 1956) was a French artist who was part of the art movement called Cubism . Cubism is a style of painting that was developed in the early 1900s and show objects from many angles at once.

3. Hannah Hoch (1889 -1978) was a German Dada artist. This was an art group that emerged in the wake of World War I. Disillusioned by the violence of war, the Dada artists wanted to challenge traditional structures and favoured the absurd. Photomontages were a form of revolution and protest. Hoch was one of the few recognized female artists at the time and her art provides a unique feminist take of how society viewed and treated women.

4. Chuck Close (1940-2021) was an American artist who is famous for his large scale portraits of family and friends. He was influenced by Pop Art and ancient Roman mosaics. His work was driven by his lifelong learning difficulties such as dyslexia and prosopagnosia (the inability to remember faces). He feels he was compelled to make portraits by his need to commit faces to memory. He used a grid to divide a photo into small sections which he scaled up onto a large canvas.

5. Veerle Symeons is a contemporary artist who also works in PR and journalism. In her art she uses collage and looks for images to tear out of magazines, using scissors, glue, paint and markers to recreate personal compositions that show feminine power, humour and a love for colours and playful composition.

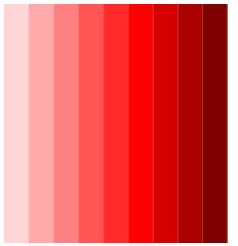
6. Luke Dixon is a contemporary artist and illustrator who creates portraits – often of celebrities, composed of lines and blocked tone in black and white.

Yr8 Art Cycle 1 Knowledge Organiser : Tradition & Innovation

Techniques & Processes –Key terms:

- **Blending** is used in painting and drawing to create a smooth transition from one colour or tone to the next.
- **Collage:** (also known as Photomontage) Collage **i**s a technique named after the French word 'coller' meaning 'to glue'. It is a process in which pieces of paper, photographs or fabrics are arranged and stuck down onto a surface.
- **Experimental :** Some artists like to experiment with new , materials, techniques or technology. Sometimes artists like to deliberately go against the 'rules' and come up with new ways of working such as deconstructing (cutting up), fragmenting, distorting or combining images together in imaginative ways.
- **Grid drawing** is a traditional technique that involves placing a grid over a reference photo, then using that grid to assist with the placement of your drawing. This method is a useful technique for enlarging an image accurately.
- **Monochromatic Colour:** Monochromatic colour refers to a colour scheme that is comprised of variations of one colour. Monochromatic colour schemes are made from a single colour base extended using tints and shades. Tints are achieved by adding white and shades are achieved by adding black to the colour.
- **Mono-printing:** Mono-printing is the process of making a print using 'mark making'. The monoprint is a form of printmaking where the image can only be made once, unlike most

- **Portrait :** A portrait is a painting, drawing or sculpture of a person's face and its expression. The purpose of a portrait is to show the likeness, personality or even the mood of the person.
- **Proportion:** Proportion refers to the relationship in size and placement between one object and another. When creating realistic portraits, it is important to get the facial proportions correct.



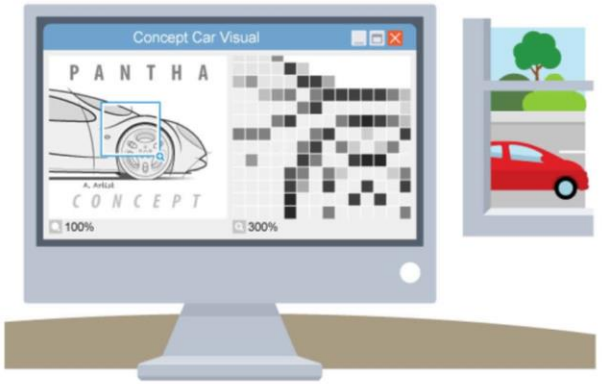
Digital Media

Year 8 - Digital Graphics Knowledge Organiser

Computing

What is a Digital Image?

Digital Images are either vectors or bitmaps. Bitmap images are made out of small parts called pixels. Vector images are made using coordinates and geometry. Images can be compressed to reduce file size.



Bitmaps

Bitmap images are widely used on digital cameras, smartphones and online. Common bitmap image file types include JPEG, GIF and PNG. Bitmaps are also known as pixelmaps or raster graphics.

Bitmap images are organised as a grid of coloured squares called pixels (short for 'picture elements'). When zooming in or enlarging a bitmap image, the pixels are stretched and made into larger blocks. This is why bitmap images appear as poor quality when enlarged too much.

Resolution

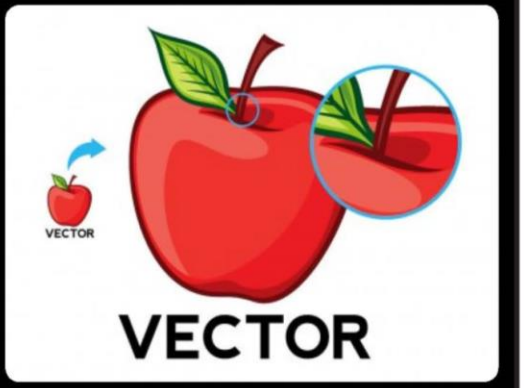
Resolution is a measure of pixel density, usually measured in dots per inch (dpi). Images on websites usually have a resolution of 72 dpi. This means that a 1-inch square contains a grid of pixels that is 72 pixels wide by 72 pixels high. 72 x 72 = 5184 pixels per square inch.

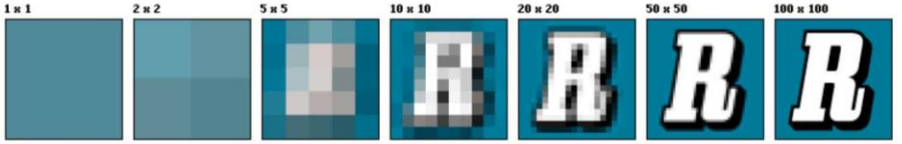
High quality printed images in books and magazines have a higher resolution than computer screens. Magazines often use either 300 dpi or even 600 dpi.

Vector Images

A vector image uses scalable shapes such as straight lines and curves, using coordinates and geometry to precisely define the parts of the image. It is more efficient than bitmaps at storing large areas of the same colour because it does not need to store every pixel as a bitmap does.

Vector graphics can be scaled without losing resolution. They can be enlarged or reduced in size - but the file size will stay almost exactly the same.





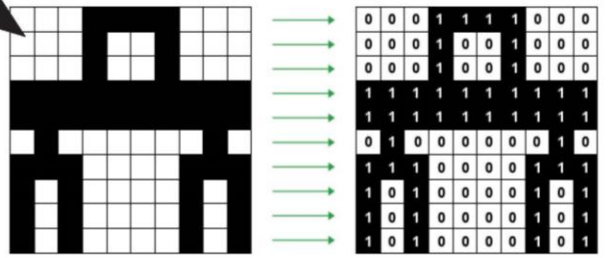
Colour depth

The colour depth of an image is measured in bits. The number of bits indicates how many colours are available for each pixel.

In the black and white image, only two colours are needed. This means it has a colour depth of 1 bit.

A 2-bit colour depth would allow four different values: 00, 01, 10, 11. This would allow for a range of colours such as:

Binary Code	Colour
00	White
01	Light Grey
10	DarkGrey
11	Black



Key Words

JPEG
Pixelated
PNG
BITMAP
GIF
Resolution
Image
Binary
Pixel
Vector
Process
BIT
Adobe Photoshop
Adobe Illustrator
Scaling

Adobe Photoshop

Knowledge Organiser

Computing

Photoshop tools layout

Common Tools

Brush Tool * (B)
The Brush Tool is Photoshop's primary painting tool. Use it to paint brush strokes on a layer or on a layer mask

Clone Stamp Tool * (S)
The Clone Stamp Tool is the most basic of Photoshop's retouching tools. It samples pixels from one area of the image and paints them over pixels in another area.

Move Tool * (V)
The Move Tool is used to move layers, selections and guides within a Photoshop document. Enable "Auto-Select" to automatically select the layer or group you click on

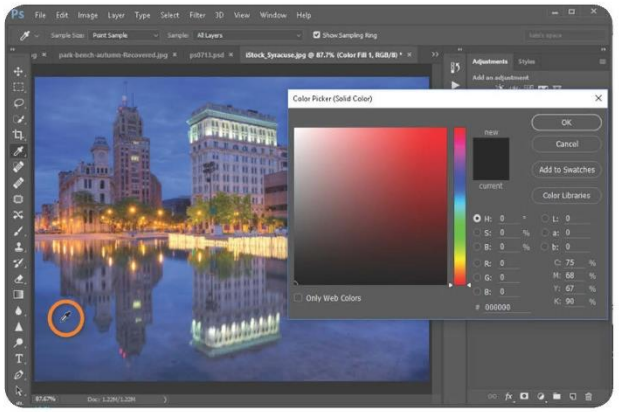
Quick Selection Tool (W)
The Quick Selection Tool lets you easily select an object simply by painting over it with a brush. Enable "Auto-Enhance" in the Options Bar for better quality selections

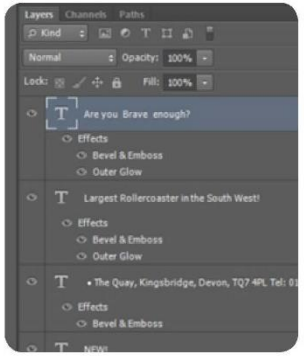
Magic Wand Tool (W)
Photoshop's Magic Wand Tool selects areas of similar color with a single click. The "Tolerance" value in the Options Bar sets the range of colors that will be selected

Horizontal Type Tool * (T)
Known simply as the Type Tool in Photoshop, use the Horizontal Type Tool to add standard type to your document.

Color Picker

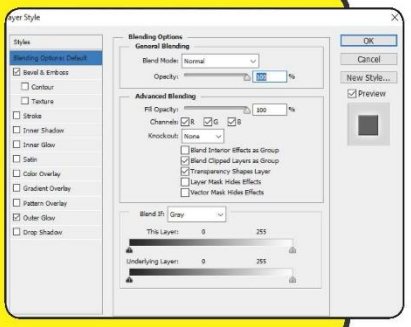
When choosing colours, use the Color Picker tool to reuse existing colours on your document





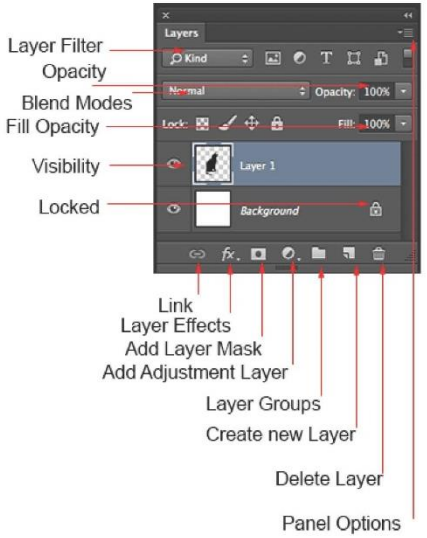
Blending Tools

By double clicking each layer you can easily apply blends, such as: Bevels, strokes and glows.



Key Words

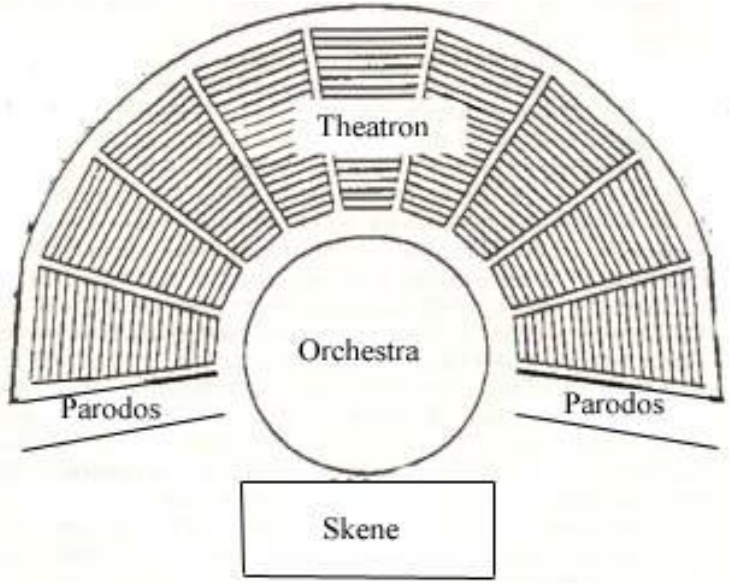
marquee
selection tool
layer
blending tools
crop
rasterize
move & place
transform
eraser
fill
gradient
magic wand
quick selection
mask
swatches
BITMAP
PNG



Year 8 – Cycle 1
Greek Theatre

Greek Theatre Key Words

Ensemble	A group of actors who work together on stage to achieve a common goal.
Chorus	A group of 12-15 male actors who would speak and move in unison to communicate the story to the audience.
Festival of Dionysia	An annual performance festival where playwrights would compete to write and perform the best plays. Often plays lasted 5 or more hours each.
Amphitheatre	A large semi-circular stage in which the Ancient Greek performances took place. Seats were carved into the hillside with a circular stage at the base.
Mask	Greek performers often wore masks to show which character they were playing; this was necessary as only 2 or 3 actors played all the main characters.



Parts of a Greek Theater

Greek Theatre Facts

Greek Theatre originated around

500BC

The Greeks used a

Chorus

To tell the story

Greek Theatre was performed in an

Amphitheatre

Greek Plays were either

Comedies or Tragedies

The Chorus was made up of

12-15

Male Actors

Up to

15,000 people

Would go to watch a play

Greek Theatre Masks

Characters & Their Plays

Mr Fox	Fantastic Mr. Fox by
Boy	The Witches by Roald Dahl
Artful Dodger	Oliver Twist by Charles Dickens
Violet	Charlie and The Chocolate Factory by Roald Dahl
Mildred Hubble	The Worst Witch by Jill Murphy
Mole	Toad of Toad Hall by Kenneth Grahame
Edmund	The Lion, The Witch & The Wardrobe by CS Lewis
The Grand High Witch	The Witches by Roald Dahl
Gemma Brogan	Junk by Melvin Burgess
Lucy	Invisible Friends by Alan Ayckbourn

Body Language

Year 8 – Cycle 1
Monologues

Costume Design

Purpose of Costume: To establish character | convey a setting | support the style of production

Shape
Different shapes can have a different effect on the audience or create a different impression of the character.

Colour
Colours on stage have many functions, for example, they can be used to create an atmosphere or tell an audience about the mood or personality of a character.

Texture
Costumes can be distressed or broken down to give the effect of age or damage, adding embellishments or patterns. Different textures create different feelings or moods for costumes.

Fit
How the clothes hang on the actor's body; which parts of the clothes are loose or tight.

Vocal Characterisation Skills

Vocal elements to consider

There are a number of different vocal elements you should consider:

- **Pitch –** speaking in a high, low or natural voice.
- **Pace –** the speed with which you speak, eg the speed of response in an argument.
- **Pause –** a dramatic pause at a crucial moment is very effective in performance.
- **Tone –** your tone suggests your mood and your intention towards the listener, eg happy, sad.
- **Volume –** you must be audible to the audience but not shout at them!
- **Accent –** you need to consider the accent that will work for your character.
- **Emphasis –** this is the pressure on individual words that makes them stand out. There's a natural stress on syllables as we speak, such as the first syllable in 'cabbage'. But emphasis or stress for a particular effect is significant and can change the meaning of a sentence as well as the feeling behind it.
- **Intonation –** the rise and fall of the voice. There's a clear movement up when we ask questions for example. Intonation also helps us to say what we mean.

Lesson 1 Elements of weather

Weather
the **day-to-day** conditions of the atmosphere. It can change quickly - one day it can be dry and **sunny** and the next day it may **rain**.

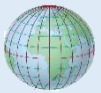
Climate
Describes the **long-term** pattern of weather in an area, typically averaged over a period of 30 years. eg. **Temperate, arctic, desert, tropical**

Temperature: using a thermometer expressed in degrees Celsius
Wind Speed: using an anemometer expressed in kmph, knots or mph
Wind Direction: using a wind vane expressed N,E,S,W
Precipitation: using a rain gauge expressed in mm
Cloud Cover: estimated by eye expressed in Octas
Sunshine Hours: number of hours of sunshine measure in minutes
Pressure: using a barometer expressed in millibars

1. What is the instrument used to measure wind speed?
2. How is precipitation measured?
3. What is the instrument used to measure pressure?

Lesson 2 Factors affecting climate

Latitude: Generally, the equator has the highest levels of insolation due to the sun being directly overhead therefore it is the hottest. Temperature decreases the closest you get to the poles



Ocean currents: These can make places warmer or cooler depending on the direction. The Gulf Stream warms the UK

Altitude: The temperature decreases by 1ºC every 100m

Distance from the sea: The ocean generally has a cooling affect

Wind: The direction of this can make a place warmer or cooler

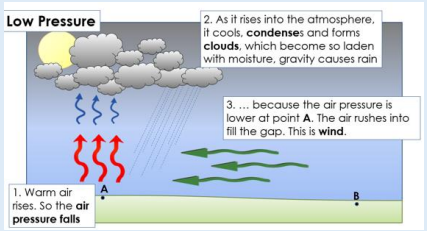
Aspect: this is the direction a place faces. South facing places are warmer (in the Northern Hemisphere) as they face the sun

Cloud cover: This can cause a place to be warmer as they can insulate and can also block out the sun causing it to be cooler

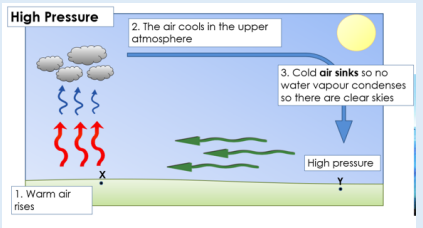
1. What is the most important factor?
2. What is the ocean current that keeps the UK warm/ mild?
3. How much does temp. decrease by for every 100m altitude increase?

Lesson 3 High and low pressure

Low pressure: Also called a depression. The air rises, cools in the upper atmosphere causing clouds and precipitation. Air moves in to fill the space where the air has risen.



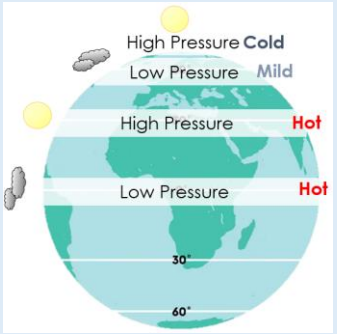
High pressure: Cool air is sinking; this leads to clear skies and warm sunny weather in the summer but cold sunny weather in winter.



1. What is the weather associated with a low pressure?
2. What is the weather associated with a high pressure in summer?
3. What is the weather associated with a high pressure in winter?

Lesson 4 Global pressure

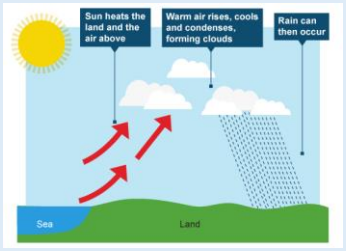
The Equator is the **hottest** area of the planet as it receives the **highest levels of insolation.**
The Polar regions or Arctic are **coldest** because they receive the lowest levels of insolation.
The Equator is characterised by **hot and wet** climate which is **ideal for vegetation growth.**
Air sinks at 30º causing cloudless skies. This means it is very **HOT and DRY,** so no plants grow. This is where the **deserts are located.**
Air rises at 60 º causing clouds and precipitation. There is **low levels of insolation** and therefore it is cool and wet. This is where the broadleaf deciduous forest and coniferous forest are located.



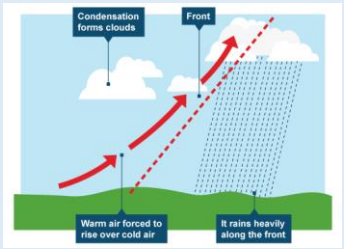
1. What is the pressure at the Equator?
2. Which place has the highest levels of insolation?
3. What is the pressure at 30º ?
4. Which biome is located here?

Lesson 5 Types of rain

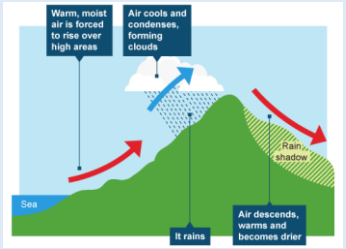
Convectional rainfall



Frontal Rainfall



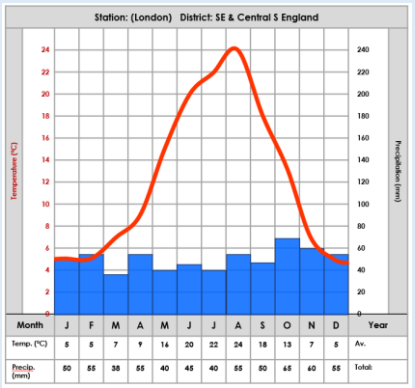
Relief Rainfall



1. What makes the air rise in convectional rainfall?
2. What makes the air rise in relief rainfall?
3. What type of rainfall does the UK get mostly?

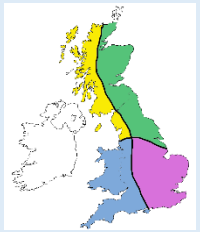
Lesson 6 UK climate graphs

Climate graphs have two **y axis**
Red: Temperature/ Line
Blue: Precipitation/ columns



Very high rainfall all year round, cool winters, mild summers
Arctic maritime

High rainfall all year round, cold winters, mild summers
Arctic continental



Warm summers, mild winters, wet all year round
Tropical Maritime

Hot summers, cold winters, low rainfall
Polar continental

1. Which month has the highest temperature?
2. Which month has the lowest precipitation?
3. What climate does the SW have?

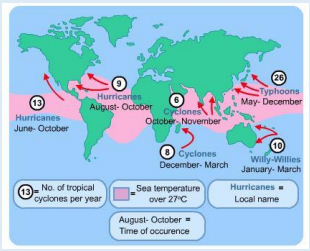
Lesson 7 Weather hazards

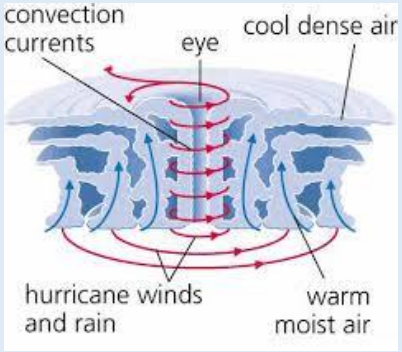
Drought: Prolonged periods of high pressure cause little or no rainfall which can result in crop failure e.g. East African Drought 1984-2022 where 21 million people have food insecurity
Forest Fires Intense heat causes the vegetation to dry out and make it susceptible to burning. E.g. the Australian Bushfire Season, Black summer 2019-2020, 34 deaths, 12000 evacuated, £88 billion
Mid Latitude Storm these occur when warm tropical air meets cold polar air causing intense low pressure e.g. Strom Denis, UK, 12th 13th Feb. 2020, 5 deaths and £225 million damage
Flood: Coastal flooding is caused by a storm surge and river flooding is caused by prolonged rainfall or flash flood by intense rainfall. Heavy Monsoon rains in Pakistan 2022 1739 deaths, £15 billion damage
Blizzard: Cold weather and heavy snow, e.g. Beast from the East, UK, 1st March 2018, 10 deaths

1. How many people suffer from food insecurity in East Africa?
2. Which was the most expensive hazard?
3. Which caused the most deaths?

Lesson 8 Formation of tropical storms

Hurricanes form off the west coast of Africa between 5° and 20° N and S of the Equator
All tropical storms form in water 26° C at least 70m deep
Rapid evaporation causes large cumulous nimbus clouds
Low wind shear means that these continue to grow
More warm moist air is drawn
Wind Speeds are in excess of 73mph in a Category 1.





1. Between what lines of latitude do tropical storms form?
2. How warm does the water have to be?
3. Draw a diagram of a tropical storm

Geography

Lesson 9 Hurricane Katrina

Hurricane Katrina was a devastating storm that hit the area around New Orleans, USA, on 25 August 2005.
It is located on the coast of Louisiana, In the Gulf of Mexico.
New Orleans has high levels of poverty within the city.

Formation and background
The tropical rotating storm developed in the Atlantic as a deep low pressure:
400 miles wide
100-175 mph winds (145 mph highest speed on land)
Made landfall on 29th August
New Orleans vulnerable to flooding as it is 2m below sea level
8m storm surge

Social impacts of the hurricane (effects on people)
1,800 people died.
300,000 homes were destroyed.
3 million people were left with no electricity.

Economic impacts of the hurricane (effects on money and jobs)
$300 billion of damage.
Oil platforms were destroyed.

1. How high was the storm surge?
2. How low is New Orleans?
3. How many people died?

Lesson 10 Hurricane Katrina 2

Cont.
Shops were looted.
Fuel prices rose.
80% of New Orleans flooded as man-made **levees**, overwhelmed by extra water, broke.
Cotton and sugar cane crops were destroyed.

Environmental impacts of the hurricane
The **storm surge** flooded large areas of the coast.
Delicate coastal **habitats** were destroyed.
Took several months for the ground to dry out
7 million gallons of crude oil spilled
1.3m acres of woodland destroyed

Responses (Immediate)
People boarded-up homes/used sheeting
90% of people left the city
10,000 people (who were too poor to evacuate) took refuge in the Superdome
Emergency services overwhelmed

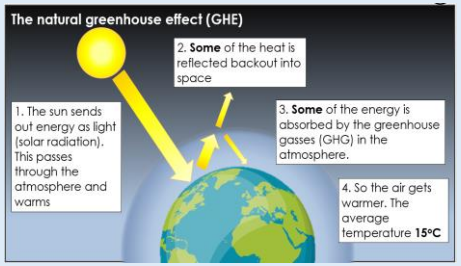
Responses (Immediate)
220 miles of flood walls & levees strengthened or replaced to lower the chances of severe flooding

1. Why did 80% of the city flood?
2. What % evacuated?
3. Who was left behind? Where did they evacuate to ?

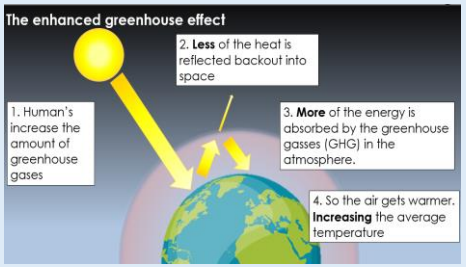
Lesson 11 Greenhouse effect and climate change

The natural greenhouse effect (GHE) is due to the gasses in our atmosphere

The greenhouse gases include
- Carbon Dioxide
- Methane
- Notorious Oxide
- Water vapour



The enhanced greenhouse effect is caused by human activity including: burning fossil fuels, intensive agriculture, deforestation



1. Name the greenhouse gases?
2. What type of energy does the atmosphere let in?
3. Why is more energy being trapped?

Lesson 12 Causes of climate change

Human
Burning fossil fuels – Fossil fuels such as oil, gas, and coal contain CO_2 that has been 'locked away'
Deforestation –Cutting down trees releases stored CO2; trees release the carbon they store when they are processed. They can no longer sequester it.
Intensive Agriculture: animals produce methane, which is 30x more powerful than carbon dioxide as a GHG. The nitrous oxide used for fertilisers is 300x more potent than CO_2

Physical
Solar flares: Changing energy from the sun has affected the temperature of Earth in the past.
Volcanic eruptions: produce aerosol particles that cool Earth, but they also release CO_2, which warms it. Neither are that significant.
Changes to Orbit, Tilt, Wobble These changes, called Milankovitch Cycles, affect the angle of sunlight that falls on Earth. This can cause the temperature of Earth to change. They take 1000s of years

1. What do trees absorb and store?
2. What gas do animals produce?
3. How much stronger is it than CO_2
4. Which is the least significant physical cause?

Lesson 1 4 Impacts of climate change

Location: California Wildfires are natural events, but they are becoming more frequent

Location: Tuvalu, South Pacific small islands are a 1m above sea level. Thermal expansion is causing the sea to rise. Fields are flooded, and the soil is being eroded. The coral reef has been bleached and damaged, so the fish are gone

Location: Switzerland, Alps Ski season is short and unpredictable due to snow melt or lack of snow (it falls as rain) The glaciers are melting too. the Arctic where the ice has melted from 4 m to 2 m

Location: UK Somerset Levels
The River Parrett floods most years, but it is getting worse and happening more often. Farmland flooded

Location: Pakistan
They are becoming unpredictable. 1739 deaths in 2022, the crops are flooded.

Location: Bangladesh
cyclones are becoming more frequent and stronger. They erode the riverbanks, destroy homes and flood our farmland which means we have no source of income.

1. What is the impact in Tuvalu?
2. What is the impact in Switzerland?
3. Which types of countries will cope better over?

Lesson 15 Impacts in Bangladesh

Bangladesh is LIC
GNI per capita $6,840 dollars
(UK GNI per capita $49,420)

Physical Causes

Low lying and has 3 major rivers that flood naturally:
Ganges
Brahmaputra
Meghna

80% of the land is only 1-2m above sea level

The Bay of Bengal acts as a "funnel" focusing the cyclones on to Bangladesh

The land is easily washed away as it is only soft mud and clay

Human Causes

Humans have removed mangroves. These are a natural sea defence

Glacial melt is increasing due to climate change causing river levels to rise

Cyclones are increasing in intensity and frequency

Sea levels are rising due to thermal expansion.

Impacts

People are losing farmland, so they change jobs to fishermen

People migrate to Dhaka away from the coast

1. How many rivers go through Bangladesh? Name them
2. How high is the land?
3. State 3 human causes of flooding

Lesson 16 Reducing climate change

Mitigation: to reduce or stop climate change itself by stopping GHG being released into the atmosphere.

Adaptation: changing what we do to cope with climate change rather than stopping it.

Actions taken by people in Bangladesh

People could leave the coast and move to the city

The government could make an agreement for Bhutan to plant trees which may absorb the precipitation and melt water.

Farmers could stop planting crops and instead farm shrimp/ prawns/

Actions taken by people in around the world

People in HIC could eat less meat as it releases a lot of CO_2 and methane

Stop buying exotic foods. The transport releases CO^2.

People could walk, cycle and use public transport rather than using their car

Charities, people and governments could plant more trees.

Governments could use renewable energy to reduce CO_2 and ban new petrol and diesel cars being made or sold

1. What actions could Bangladeshi people take?
2. State 3 actions people in HICs could take

Key Words

Altitude: How high something is
Aspect: the way something faces
Barometer: The instrument used to measure air pressure
Climate graph: Shows annual temperature and precipitation
Condensation: the process of gas turning back into liquid
Convection: the process of something rising due to heat
Evaporation: the process of water turning from liquid to gas
Greenhouse Effect: a natural process of whereby gases in the atmosphere allow light to pass through and trap heat
High Pressure also known as an anticyclone
Insolation the amount of solar radiation reaching a given area.
Low pressure also known as a depression
Mangrove: a low growing trees/ shrubs that grow in warm shallow, calm seas
Mid Latitude Storm: These are storms that affect areas between 40-60° N and S of the Equator
Tropical storm: intense area of low pressure also known as hurricane, cyclone, typhoon

Write out 3 words and definitions that are new to you

History Year 8 Knowledge Organiser: The English Civil War; causes and consequences, Cycle 1a

History

Summary of the causes of the war:

Why did the King dissolve Parliament and rule for 11 years without them? King **Charles** 1st believed in the **divine right of kings**. **Parliament** had refused to grant him more personal money, and had also criticised his marriage (to a Catholic) and his religious reforms.

Why did Civil War break out in 1642? Religious divides, different beliefs about power and arguments over the king's finances. **Charles** had ruled for 11 years without **Parliament**, raised taxes without their consent and made religious changes they hated. **Parliament** criticised the king, issued the **Grand Remonstrance**, with **Charles** even trying to use soldiers to arrest his leading critics in **Parliament**. **Charles** felt he had no choice left if he was to defend his authority from **Parliament**. **Parliament** felt they had a right to fight and protect their rights and freedoms from the King.

Why was Charles executed in 1649? He lost the **civil war**, started a second **civil war** by getting the Scottish to invade and was accused of treason.

Key dates

1625	**Charles I** becomes King. Marries **Henrietta Maria**.
1629	**Charles I** dissolves **Parliament** and rules without them.
1635	**Charles** I imposed the tax '**ship money**' across the country.
1640	**Charles** was forced to recall **Parliament** as he needed more money to fight the Scottish.
1641	The **Grand Remonstrance**. **Charles** retaliates by marching 400 soldiers into the House of Commons to arrest the MP's responsible.
1642	**Civil war** between King and **Parliament** begins on August 22nd.
1644	Battle of Marston Moor
1645	**New Model Army** created. Battle of Naseby.
1646	End of First **Civil War**.
1648	Second **Civil War** begins. Battle of Preston. **Parliament** victory.
1649	Trial of **Charles** I, followed by his execution. England a republic.
1653	**Oliver Cromwell** appointed Lord Protector
1658	Death of **Oliver Cromwell**
1660	Restoration of the monarchy. Coronation of **Charles** II
1665	The Great Plague
1666	The Fire of London
1688	The 'Glorious Revolution' overthrow of Catholic James II

Key people

Charles I	Ruled between 1625 – 1649, king during the civil war
Henrietta Maria	Wife of **Charles** I, daughter to Henri IV of France. Catholic
Thomas Fairfax	**Parliamentarian** General and creator of the **New Model Army**
Oliver Cromwell	Ruled England as Lord Protector from 1653 to 1659
James II	Ruled 1685-1688, brother of Charles II. Deposed as was a Catholic
William and Mary	Protestant monarchs who overthrew James II in 'Glorious Revolution'

Key concepts

Charles and money	**Charles** had a lavish lifestyle and was running out of money – he was bankrupt. He tried raising taxes without consulting **Parliament**.
Charles and religion	**Charles** married a Catholic in 1625, **Henrietta Maria** of France. **Charles** forced the Scottish church to look more Catholic, and introduced a new prayer book in 1637. **Charles** allied Protestant England with Catholic Spain.
Charles and power	**Charles** believed in divine right, he did not want **Parliament** telling him what to do. In 1640 **Charles** lost a war with the Scottish which made him look weak. In 1642 **Charles** took control of the army without **Parliament**'s permission.
Divine right of kings	A belief that the monarch was chosen by God, and that their power and authority came from God. Only answerable to God.
restoration	Re-instating the monarchy following the period of rule as a **republic**.

Key vocab

civil war	A war between different groups in the same country
Puritans	Thought the Church of England needed to go further the remove Catholic practices; wanted a 'purified' church
Parliament	A group of people who helped advise the monarch (king or queen). They were not nearly as powerful as **Parliament** today, however monarchs were not *supposed* to create laws or introduce taxes without **Parliament**'s agreement.
ship money	A tax traditionally only imposed on coastal towns in times of war. **Charles** imposed this tax on the whole country at a time of peace
Court of Star Chamber	A special, medieval law court which sat in secret and needed no evidence or witnesses. **Charles** used it to remove opponents
Grand Remonstrance	List of demands presented to **Charles** I by **Parliament**. One of the key trigger events leading to the Civil War.
Cavaliers	The insulting nickname given to the Royalists who fought for the king. Literally means 'horsemen'
Roundheads	The insulting nickname given to those who fought for **Parliament**
New Model Army	Full time, highly disciplined, professional army that fought for **Parliament**
regicides	Literally 'king killers' – the name given to those who signed **Charles**' death warrant
republic	A country ruled by an appointed or elected leader, *not* a monarchy.
tolerant	Showing willingness to accept the beliefs and opinions of another person
democracy	System of government in which power is shared amongst the people

History Year 8 Knowledge Organiser: The Industrial Revolution 1750-1900

Overview of the Industrial Revolution:

From 1750 to 1900 Britain went through a process of rapid change in:

•**Agriculture**– (farming) New tools, fertilizers and harvesting techniques were introduced, this meant more farming became more efficient and more food was grown. This supported the growing **population.**

•**Industry** – Before the **Industrial Revolution** people had worked in their own homes, working on their own. The **Industrial Revolution** brought factories and **mass production**, meaning more goods could be produced, quicker and cheaper.

•**Transport and communications** -Thomas Telford built roads and canals in the 1700s and George Stephenson and Isambard Kingdom Brunel oversaw the 'Railway Mania' of the 1800s. There had previously been no very fast, cheap way of transporting goods and people around the country, steam power changed this.

•**Technology** - There were also many scientific discoveries and **technological** inventions that changed society and industry. Changes to sanitation (hygiene) and medical treatment such as the work of John Snow and Edward Jenner improved people's quality of life.

Key concepts	
Working conditions	Conditions for workers were generally poor. Jobs were very dangerous, children were expected to work, pay was poor, especially for women and children.
Living conditions	Life in towns/cities was very unhygienic. Only the wealthy had water supplies to their homes. The poor lived in overcrowded, unhygienic, poor quality **slum** homes. They often lived in lodging houses with strangers. The lack of proper sewage systems meant that even the wealthy couldn't avoid the smell and disease. Cholera and other 'filth diseases' were common and there were no cures.
Law and order	There was no police force until 1829, and that was only in London. Crime was common, especially theft. Poor people had nowhere safe to keep valuables and unlit streets made crime easy to get away with. The police were distrusted as they were new. There was also lots of violent crime, e.g. Jack the Ripper murders.
The political system	Before 1832 only 3% of the **population** could vote! It was only after 1867 that some working-class men were allowed to vote. No women were allowed to vote at all. Politicians were rich, white men who were often business owners. They didn't want to change the rules as it would make them lose money.

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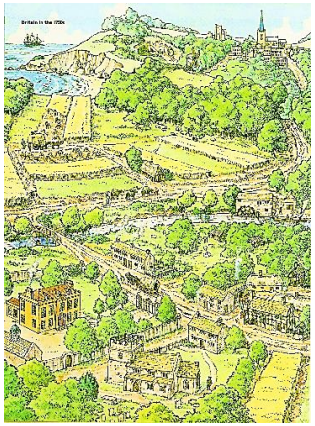

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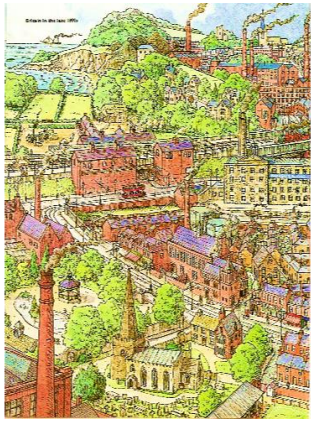


Key dates	
1750-1900	The period in which the **Industrial Revolution** took place in Britain. Britain was the first country to industrialise.
1712	Thomas Newcomen invents the first usable steam engine. It could be used to power machines in factories.
1825	The first steam railway is opened between Stockton and Darlington. It used engines created by George Stephenson.
1829	The Metropolitan Police Force was formed. (London only).
1832	The Great Reform Act gave more people the right to vote
1847	The 10 Hours Act is passed – the law made it illegal for women & children to work more than 10 hours per day in textile **mills**
1858	Joseph Bazalgette begins the building of 1300 miles of sewers in London.

Key vocab	
population	The amount of people who live in a particular place. The population of the Britain rose over 600% during the **Industrial Revolution** – 6 million to 37 million!
mass production	Producing large quantities of identical goods, in a factory, often using machines.
urbanisation	The movement of people from the countryside to towns and cities. By the end of the **Industrial Revolution**, the majority of people lived in towns.
Industrial Revolution	A time of rapid change in the way that things are manufactured (made), going from being hand made at home, to using machines in factories. E.g. Britain between 1750 and 1900.
interpretation	An historian's view of the past. E.g. Emma Griffin has a positive **interpretation** of the **Industrial Revolution**.
technology	Anything that is man-made in order to make life easier or more enjoyable.
agriculture	farming
mechanisation	Changing from things being made by hand to things being made with the help of machines.
cottage industry	When people worked from their homes e.g. weaving cloth on a hand loom.
labour	Work, especially hard, physical work (done with your hands).
child labour	When children work. This was common in the Industrial Revolution, e.g. in mines, factories, on farms or as chimney sweeps.
slums	Poor quality housing,
rotten boroughs	Areas which still got to send MPs to parliament, but only had a few people living there. In other areas, e.g. Manchester, thousands of people lived, but were not allowed to send any MPs to parliament.

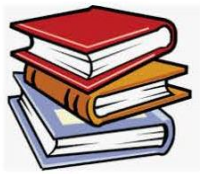
Y8Fr LC1 : Sentence Builder 1 : What I watch (TV) - Qu'est-ce que tu regardes à la télé ?

Verb	Noun	Opinion verb	Noun	connective	verb	opinion adjective
Je regarde (**I** watch) **Je ne** regarde **pas** (**I don't** watch) **Je ne** regarde **jamais** (**I never** watch) **Je ne** rate **jamais** (**I never** miss) 	**les** émissions **de** sport (sports programmes) **les** émissions **de** télé-réalité (reality TV programmes) **les** émissions musicales (music programmes) **les** infos (**the** news) **les** séries (series) **les** jeux télévisés (game shows) **les** dessins animés (cartoons) **les** documentaires (documentaries)	**j'adore (I love)** **j'aime (I like)** **je déteste (I hate)** **je n'aime pas (I don't like)**	**les** émissions **de** sport (sports programmes) **les** émissions **de** télé-réalité (reality TV programmes) **les** émissions musicales (music programmes) **les** infos (**the** news) **les** séries (series) **les** jeux télévisés (game shows) **les** dessins animés (cartoons) **les** documentaires (documentaries)	**parce que** **car** **(because)**	**je les trouve (I find them)**	amusants/es (funny) bien (good) barbants/es (boring) chouettes (great) effrayants/es (scary) émouvants/es (moving) géniaux/géniales (great) intéressants/es (interesting) passionnants/es (exciting) stupides/idiots/es (stupid)

Y8Fr LC1: Sentence Builder 2: What I watch (films) - Tu aimes regarder les films?

Verb		Noun	Connective	Intensifier	Opinion adjective	connective	Opinion adjective
J'aime **Je n'aime pas** **Je** regarde **Je ne** regarde **jamais** **J'ai une** passion **pour** (**I have a** passion **for**) **Je ne** supporte **pas** (**I can't** stand)	**les**	films **d'**action (action films) films fantastiques (fantasy films) comédies (comedy films) films musicaux (musicals) films **d'**amour (love films) films **d'**aventure films **de** science-fiction films **d'**arts martiaux (martial arts films) dessins animés (animated films)	**car je trouve ça** (**I find it**)	**assez** (**quite**) **très** (**very**) **un peu** (**a bit**) complètement (completely) extrêmement (extremely) **vraiment** (**really**) hyper (super)	amusant (funny) **bien** (**good**) barbant (boring) chouette (great) effrayant (scary) émouvant (moving) génial (great) intéressant (interesting) passionnant (exciting) stupide/idiot (stupid)	**et** (**and**) **mais** (**but**) **aussi** (**also**)	amusant (funny) **bien** (**good**) barbant (boring) chouette (great) effrayant (scary) émouvant (moving) génial (great) intéressant (interesting) passionnant (exciting) stupide/idiot (stupid)
Je suis fan **de** (**I'm a** fan **of**) **Je ne suis pas** fan **de** (**I'm not a** fan **of**) 							

Y8Fr LC1: Sentence Builder 3 : What I read - Tu aimes lire ?

Time marker	Verb	Noun	Verb	Intensifier	Opinion Adjective	verb	Intensifier	Adjective
En ce moment (**at the** moment) Normalement (Normally) D'habitude (usually) Quelquefois (sometimes) 	**Je** lis (**I** read/ **I am** reading)	**un** roman policier (**a** crime novel) **un** roman de science-fiction (**a** sci-fi novel) **un** roman d'amour (**a** romantic novel) **un** roman fantastique (**a** fantasy novel) **un** roman d'aventure (an adventure novel) **un** livre sur **les** animaux (**a** book about animals) **un** livre d'épouvante (**a** horror/scary book) **un** magazine (**a** magazine) **un** journal (**a** newspaper) **une** BD (**a** comic book) **un** manga (**a** manga book)	**et c'est (and it's)** **et je pense que c'est (and I think it's)** **et à mon** avis **c'est (and in my** opinion **it's)**	**assez (quite)** **très (very)** **un peu (a bit)** complètement (completely) extrêmement (extremely) **vraiment (really)** hyper (super) **trop (too)**	drôle (funny) triste (sad) effrayant (scary) intéressant (interesting) passionnant (exciting) émouvant (moving) ennuyeux (boring) difficile (difficult) nul (rubbish)	**mais c'est (but it's)**	**assez (quite)** **très (very)** **un peu (a bit)** complètement (completely) extrêmement (extremely) **vraiment (really)** hyper (super) **trop (too)**	drôle (funny) triste (sad) effrayant (scary) intéressant (interesting) passionnant (exciting) émouvant (moving) ennuyeux (boring) difficile (difficult) nul (rubbish)

Y8Fr LC1 : Sentence builder 4 : What I do online - Que fais-tu en ligne ?

Verb	Frequency	key phrase	connective	opinion phrase	Adjective
Quand je suis connecté (**When I am** online) 	quelquefois (sometimes) **tous les** soirs (**every** evening) **une** fois **par** semaine (**one** time **per** week) d'habitude (usually) souvent (often)	**Je fais des** achats (**I make** purchases) **J'**envoie **des** emails/**des** textos (**I** send emails/texts) **Je fais mes** devoirs (**I do my** homework) **Je** joue **à des** jeux (**I** play games) **Je fais des** quiz (**I do** quizzes) **Je** regarde **des** clips vidéos (**I** watch video clips) **Je** lis **des** infos (**I** read **the** news) **je** télécharge **des** chansons (**I** download songs) **Je** tchatte **en** ligne (**I** chat online)	**parce que** **(because)** **car** **(because)**	selon **moi c'est** (according to me it's) **je pense que c'est** **(I think it's)** **Je trouve que c'est** **(I find it's)** **à mon** avis **c'est** (**in my** opinion **it's**)	amusant (funny) **assez bien** **(quite good)** barbant (boring) chouette (great) pratique (practical) génial (great) intéressant (interesting) passionnant (exciting) stupide/idiot (stupid)

Y8Fr LC1: Sentence builder 5 : What I'm going to do tomorrow - Qu'est-ce que tu vas faire demain ?

Time marker	Future tense verb	connective	Future tense verb 2	future tense	adjective
Demain (Tomorrow) Demain soir (tomorrow evening) Demain matin (tomorrow morning) Demain après-midi (tomorrow afternoon) **Ce** weekend (**this** weekend) 	**je vais** regarder **la** télé/**un** film (**I'm going to** watch TV/**a** film) **je vais** écouter **de la** musique (I'm going **to** listen **to** music) **je vais** surfer **sur** internet (**I'm going to** surf **on the** internet) **je vais** jouer **aux** jeux **en** ligne (**I'm going to** play games online) **je vais** poster **des** photos (**I'm going to** post photos) **je vais** télécharger **des** chansons (**I'm going to** download songs) **je vais** tchatter **en** ligne (**I'm going to** chat online) **je vais** envoyer **des** textos (**I'm going to** send texts) **je vais** lire **mon** livre (**I'm going to** read **my** book) **je vais** dîner **en** famille (**I'm going to** eat **with my** family) **je vais faire mes** devoirs (**I'm going to do my** homework)	**plus tard (later)** **puis (then)** **ensuite (next)** **après (after)** **finalement (finally)**	**je vais** regarder **la** télé/**un** film (**I'm going to** watch TV/**a** film) **je vais** écouter **de la** musique (I'm going **to** listen **to** music) **je vais** surfer **sur** internet (**I'm going to** surf **on the** internet) **je vais** jouer **aux** jeux **en** ligne (**I'm going to** play games online) **je vais** poster **des** photos (**I'm going to** post photos) **je vais** télécharger **des** chansons (**I'm going to** download songs) **je vais** tchatter **en** ligne (**I'm going to** chat online) **je vais** envoyer **des** textos (**I'm going to** send texts) **je vais** lire **mon** livre (**I'm going to** read **my** book) **je vais** dîner **en** famille (**I'm going to** eat **with my** family) **je vais faire mes** devoirs (**I'm going to do my** homework)	**ce sera (it will be)** **ce ne sera pas (it will not be)**	amusant (funny) **assez bien (quite good)** barbant (boring) chouette (great) pratique (practical) génial (great) intéressant (interesting) passionnant (exciting) stupide/idiot (stupid)

Year 8 Learning Cycle 1 Sentence Builder 1:

¿Qué hay en la foto?

En la foto = In the photo En el centro de la foto = in the middle of the photo A la izquierda de la foto = on the left of the photo A la derecha de la foto = on the right of the photo Al fondo = in the background	hay = there is/are	X personas = X people un hombre = a man una mujer = a woman un chico = a boy una chica = a girl un grupo de... = a group of... un equipo de... = a team of...	creo que = I think that	está = he/she is feeling están = they are feeling	alegre(s) = happy triste(s) = sad fenomenal(es) = amazing fatal(es) = awful
		comida = food una bebida = drink un libro = a book un ordenador = a computer un móvil = a mobile ropa = clothing		es = it is	delicios@= delicious asqueros@ = disgusting san@ = healthy malsan@ = unhealthy nuev@ = new viej@ = old elegante = smart fe@ = ugly

La foto = the photo  	tiene lugar = takes place	en = in	una empresa =a business una escuela = a school un estadio = a stadium una fábrica = a factory un gimnasio =a gym un hotel = a hotel un hospital = a hospital un laboratorio = a laboratory un mercado = a market una oficina = an office una tienda = a shop

Year 8 Learning Cycle 1 Sentence Builder 2:

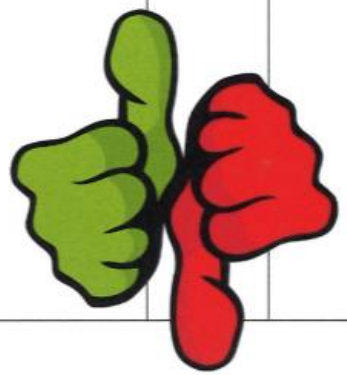
¿Qué vas a ser en el futuro? – What are you going to be in the future?

Verb	Noun	Connective	Verb	Noun
Voy a ser = I am going to be **Quisiera ser = I would like to be**	abogad@ = lawyer artista =artist azafata = air host(ess) camarero = waiter cantante = singer ciéntific@ = scientist enfermer@ = nurse empresari@ = business(wo)man estrella = star futbolista = footballer guía túristica = tour guide ingenier@ = engineer jefe = boss mecánic@ = mechanic médic@ = doctor músic@ = musician periodista = journalist pintor = painter policía = police officer secretari@ = secretary soldad@ = soldier actor/actriz = actor/actress profesor(a) (de…) = (…) teacher	**porque = because**	**me encanta = I love** **me gusta = I like** me interesa = I'm interested in se me da bien = I'm good at	el inglés = English el español = Spanish el francés = French la historia = history la geografía = geography la religión = RE/BVC el derecho = law la tecnología = technology la informática = IT la cocina = cookery el deporte = sport la educación física = PE la música = music el teatro = drama el dibujo = art
			me encantan = I love **me gustan = I like** me interesan = I'm interested in se me dan bien = I'm good at	las matemáticas = maths las ciencias = sciences los idiomas = languages los negocios = business studies

Year 8 Learning Cycle 1 Sentence Builder 3:

¿Cuáles son las ventajas y desventajas de ser profesor? What are the advantages and disadvantages of being a teacher?

Noun	Prep	Infinitive	Noun	Verb	Connective	Verb	Noun	Adjective
Una ventaja = **an** advantage **Una** desventaja = **a** disadvantage	**de = of**	**ser = to be**	abogad@ = lawyer artista =artist azafata = air host(ess) camarero = waiter cantante = singer ciéntific@ = scientist enfermer@ = nurse empresari@ = business(wo)man estrella = star futbolista = footballer guía túristica = tour guide ingenier@ = engineer jefe = boss mecánic@ = mechanic médic@ = doctor músic@ = musician periodista = journalist pintor = painter policía = police officer secretari@ = secretary soldad@ = soldier actor/actriz = actor/actress profesor(a) (de...) = (...) teacher	**es = is**	**que = that**	**es = is**	**un** trabajo = **a** job	artístico = artisitic complicado = complicated cómodo = comfy/convenient difícil = difficult duro = hard emocionante = exciting fácil = easy importante = important necesario = necessary responsable = responsable útil = useful variado = varied **bien** pagado = well paid **mal** pagado = badly paid



Year 8 Learning Cycle 1 Sentence Builder 4:

¿Qué debes hacer para ser policía? = What do you need to do to be a policeman?

Connective	Verb	Noun	Auxiliary verb	Verb	Quantifier
Para = (in order) to	**ser = to be**	abogad@ = lawyer artista =artist azafata = air host(ess) camarero = waiter cantante = singer ciéntific@ = scientist enfermer@ = nurse empresari@ = business(wo)man estrella = star futbolista = footballer guía túristica = tour guide ingenier@ = engineer jefe = boss mecánic@ = mechanic médic@ = doctor músic@ = musician periodista = journalist pintor = painter policía = police officer secretari@ = secretary soldad@ = soldier actor/actriz = actor/actress profesor(a) (de…) = (…) teacher	**necesito = I need** **necesitas = you (s) need** **necesita = he/she/it needs** **necesitamos = we need** **necesitáis = you (pl) need** **necesitan = they need** **voy a necesitar = I am going to need** **vas a necesitar = you (s) are going to need** **va a necesitar he/she/it is going to need** **vamos a necesitar = we are going to need** **vais a necesitar = you (pl) are going to need** **van a necesitar = they are going to need** **debo = I must/have to** **debes = you(s) must/have to** **debe = he/she/it must/have to** **debemos = we must/have to** **debéis = you (pl) must/have to** **deben = they must/have to** **voy a deber = I am going to have to** **vas a deber = you (s) are going to have to** **va deber = he/she/it is going to have to** **vamos a deber = we are going to have to** **vais a deber = you (pl) are going to have to** **van a deber = they are going to have to**	cocinar = to cook construir = to construct cuidar = to care (for) diseñar = to design estudiar = to study escribir = to write hablar = to talk **pensar = to think** practicar = to practice repasar = to revise **saber = to know** trabajar = to work	**mucho = a lot** **poco= not at all**

Year 8 Learning Cycle 1 Sentence Builder 5:

¿Qué es el trabajo ideal para ti? – What is the ideal job for you?

Verb	Noun	Verb	Adjective	Prep	Pronoun	Connective	Auxiliary Verb	Verb	Adverb
Ser = to be	abogad@ = lawyer artista =artist azafata = air host(ess) camarero = waiter cantante = singer ciéntific@ = scientist enfermer@ = nurse empresari@ = business(wo)man estrella = star futbolista = footballer guía túristica = tour guide ingenier@ = engineer jefe = boss mecánic@ = mechanic médic@ = doctor músic@ = musician periodista = journalist pintor = painter policía = police officer secretari@ = secretary soldad@ = soldier actor/actriz = actor/actress profesor(a) (de...) = (...) teacher	**es = is**	ideal = ideal perfecto = perfect bueno = good malo = bad	**para = for**	**mí = me** **tí= you** **él = him** **ella = her** nosotros = us vosotros = you ellos/ellas = them	**porque = because**	**puedo = I can** **puedes = you (s) can** **puede = he/she/it can** **podemos = we can** **podéis = you (pl) can** **pueden = they can**	cuidar = to care for cocinar = to cook construir = to construct diseñar = to design escribir = to write hablar = to talk **hacer = to do** **pensar = to think** practicar = to practice **saber = to know** trabajar = to work	**bien = well** **mal = badly** rapidamente = quickly

COMPOSITION

VOCABULARY

Triad	*A chord made of three notes: the 1st, 3rd and 5th.*
Extended chord	*A chord mode of the triad, with additional notes for extra flavour.*
Major	*A triad with a brighter sound.*
Minor	*A triad with a darker sound.*
Diminished	*A triad with a dissonant sound.*
Chord Progression	*A pattern of chords played in a sequence.*

Chord :	I	II	III	IV	V	VI	VII
5th	*C*	*D*					
3rd	*A*	*Bb*	*C*				
1st (root)	***F***	***G***	***A***	**Bb**	**C**	**D**	**E**

HOW TO BUILD A CHORD

If the notes in the scale are **F G A Bb C D E** then we only use these notes. To find the **3rd** and **5th** of each chord, you simply count the notes starting from the 1st.

For example: When G is the 1st, then A is the 2nd, Bb is the 3rd, C is the 4th and D is the 5th. Then choose a chord, and play the 1st, 3rd and 5th of that chord simultaneously. E.g., G, Bb, D

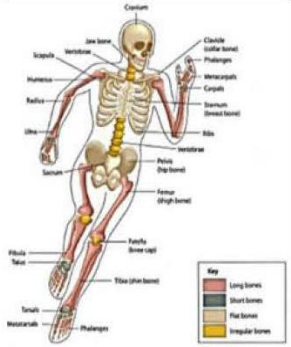
Try it for yourself! Complete this example ^

KS3 Physical Education Head, Heart, Hands Assessment

Mastery	• I can **explain** a number of rules. I can **make links** between the strategies and tactics in different activities. • I am able to **apply** how key words on the knowledge organiser **relate** to different activities. • I am able to **analyse** performance to prioritise strengths and areas for development. I can communicate feedback and explain key coaching points.	• I am **hard working** and consistently give **100% effort.** I eagerly accept challenges and am a **role model** to others. • I am able to bring out the best in others to increase success when working as a team. • I demonstrate confidence and authority when officiating, leading and participating.	• I can **make links** between skills and techniques which will enable me to be successful across a range of sports and activities. • I can explain a problem to a team and communicate strategies to solve that problem. • Demonstrates **excellent fitness** across **all** activities.
Secure	• I can **explain** a number of rules. I can **apply** strategies and tactics in different activities. • I am able to **explain** all key words on the knowledge organiser • I am able to **analyse** performance and communicate strengths and areas for development.	• I am consistently on task and putting in my best effort • I am effective when working as a team and show respect to staff and equipment • I can demonstrate confidence to lead a group successfully	• I can apply appropriate skills and techniques to be successful within a competitive scenario • I can **identify a problem** and suggest solutions for pre-determined and spontaneous situations. • Demonstrates **very good fitness** across **a range** of activities.
Developing	• I can describe a limited number of rules, strategies and tactics • I am able to describe some key words on the knowledge organiser • I am able to **identify** strengths and areas for development and communicate **basic** feedback	• I am able to follow most instructions and am consistently on task • I am respectful when working as a team, to staff and equipment • I am developing my confidence and can demonstrate leadership qualities	• I am Developing the ability to apply skills and techniques within a competitive scenario • I can **identify a problem** and suggest solutions for pre-determined situations. • I can Demonstrate **good fitness** across **most** activities.
Emerging	• I can **identify** a limited number of rules, strategies and tactics. • I am able to **name** some key words on the knowledge organiser • I am able to **identify** strengths and areas for development.	• I am able to follow **simple instructions** and am developing the ability to stay on task • I am **developing** the ability to be respectful when working in a team • I am **developing** my confidence and understand the qualities that make a good leader	• The quality of **technique** is maintained for **few skills** and often deteriorates in challenging practises. • **Developing** problem solving skills but this may be ineffective for both pre-determined and spontaneous situations. • Fitness is a key area for development to become more effective within activities.
KS3 **Head | Heart | Hands** **Assessment**	**Head** **Knowledge | Understanding | Feedback Analysis | Rules | Strategies and Tactics**	**Heart** **Effort | Teamwork | Respect Leadership Resilience | Confidence**	**Hands** **Fitness | Physical Ability Technique Competition | Problem solving**

Year 8 Cycle 1 Sport and PE Knowledge Organiser

Week 1 and 2	Week 3 and 4	Week 5 and 6	Week 7 and 8	Week 9 and 10	Week 11 & 12
Major Bones	**Major Bones**	**Major Muscles**	**Types of Muscle Contraction**	**Muscles working in pairs**	**Types of movement**



Can you label the major bones?

- Cranium
- Vertebrae
- Scapula
- Humerus
- Radius
- Ulna
- Pelvis
- Femur
- Tibia
- Fibula
- Patella

The functions of the Skeleton

Remember the acronym:
Scary Skeletons Make Many People Petrified

Support
Bones keep us upright and support muscles and organs.

Shape
Skeleton gives us our height and build.

Mineral Storage
Bones store minerals such as calcium and phosphorus.

Movement
Muscles attach to and pull on bones to produce movement. Bones act as levers.

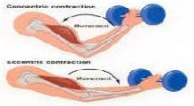
Protection
Bones protect vital organs – e.g. Cranium protects brain, ribs protect heart and lungs.

Production of red blood cells
Inner marrow of bones produces red and white blood cells. Red cells carry oxygen, white cells fight infections.

Can you label the major Muscles?

- latissimus dorsi
- deltoid
- pectorals
- biceps
- triceps
- abdominals
- hip flexors
- gluteus maximus
- hamstring
- quadriceps group
- gastrocnemius
- tibialis anterior

Isotonic Contraction
Muscle changes shape and creates movement. There are 2 types; concentric & eccentric



Concentric Contraction
Muscle contracts and shortens

Eccentric Contraction
Muscle contracts and lengthens – only used in the downwards phase of a movement.

Isometric Contraction
Muscle contracts but the length of the muscle does not change. There is no movement e.g. holding a balance

Antagonist & Agonist

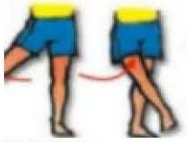
Muscle are arranged in antagonistic pairs. One muscle contracts & shortens **(Agonist)** and a partner muscle relaxes and lengthens **(Antagonist)** to create a movement.

Examples in the body

- *Biceps & Triceps*
- *Quadriceps & Hamstrings*
- *Hip flexors & Gluteus Maximus*
- *Tibialis Anterior & Gastrocnemius*

Flexion
Decreasing the angle at a joint (bending)
Extension
Increasing the angle at a joint (straightening)

Abduction
Taking a limb away from the body (abduct)
Adduction
Bringing a limb back towards the body (Add)



Rotation
Turning a limb along its axis (circular)

Plantar flexion
Pointing toes (P for Point)
Dorsi flexion
Toes towards the nose

My PE Targets

Cycle 1	Knowledge Organiser score:	Emerging	Developing	Secure	Mastery
My Target:					
Cycle 2	**Knowledge Organiser score:**	**Emerging**	**Developing**	**Secure**	**Mastery**
My Target:					
Cycle 3	**Knowledge Organiser score:**	**Emerging**	**Developing**	**Secure**	**Mastery**
My Target					

How to make a SMART target in PE

- Read the assessment band that you have been awarded
- Self-assess the most important area for you to develop out of Head, Heart and Hands
- Choose one bullet point from the band above that you are going to try and focus on in the next cycle

Examples of Targets

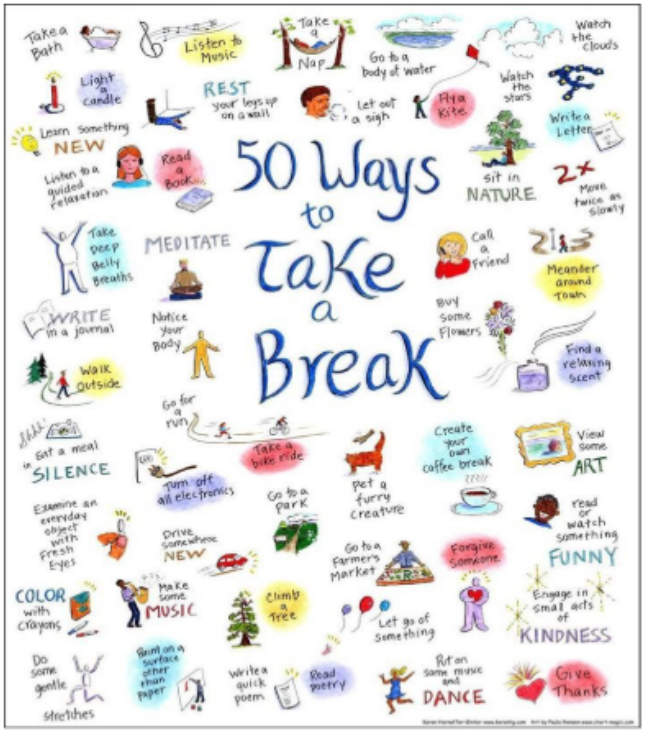
- This cycle I am going to try and work with different students in my group
- To demonstrate respect to others I am going to focus on listening when they are talking
- To show resilience even when practices get more challenging
- To improve my cardiovascular fitness by attending fitness suite club
- To improve my skill level by attending Badminton club

PSHE: How can I look after my well- being?

Key terms:

Mental health 	**This refers to how we feel, how well we're coping with daily life or what feels possible at the moment.**
Good mental health 	Having good **emotional** and **mental** health is when we are in control of our thoughts, feelings, and behaviour. We are able to cope with life's challenges, and we mostly feel good about ourselves and have good relationships with others.
Mental health 	Relating to the mind
Physical 	Relating to the body as opposed to the mind.
Emotions 	These are also called **feelings.** They can be affected by situations and our relationships with others
Healthy coping strategy	Good things we can do to help us to manage our most intense, thoughts and emotions.

Take a break: do something you enjoy
Try to plan some activities that you enjoy, and which will take your mind off things, whether that's texting or face-timing a friend, watching a film, reading a book or going for a walk.



PSHE: How we can we look after our well-being?

- Your tutor
- Your Raising Standards Lead – Mr Hart
- Your Inclusion lead – Mrs Parry
- Your PSHE teacher /PSHE team including Mrs Joyce
- Ms Ray (in charge of safeguarding)
- Any teacher

Peer led student support:
- Your 6th from Mental Health Ambassador
- Your 6th form student leaders – email Mrs Joyce

There are lots of places to get advice about emotional wellbeing, social media or to discuss feelings.

ChildLine:
www.childline.org.uk Phone: 0800 1111

Young Minds:
www.youngminds.org.uk

Samaritans:
www.samaritans.org Phone: 116 123

In a crisis, text 'Shout' t

shout 85258 here for you 24/7

5 minute mental wellbeing actions

These are simple, free actions you can do daily.
Many take very little time or energy, and most can be done in less than five minutes.

- **Breathe – take a few deep breaths**
- **Have a glass of water**
- **Have a healthy snack**
- **Do a 5 minute burst of exercise**
- **Connect with someone you care about – give them a hug, send them a message**
- **Take a moment to be still and present**

EH4MH EARLY HELP 4 MENTAL HEALTH

'10 a day' choices towards balancing our mental health

Week 1	Week 2	Week 3	Week 4
Lesson 1 – What Is The Problem Of Evil?	**Lesson 2 – Is Suffering Necessary?**	**Lesson 3 – Responses to The Problem Of Evil**	**Lesson 4 – Who Was The Buddha?**
Key Terms: **Evil:** Morally bad or cruel. Believed by some to be contrary to the will of God. **Natural Evil:** Suffering that humans have no control over, which occurs naturally. E.g., Natural disasters. **Moral Evil:** Acts of humans considered to be morally wrong. E.g., Murder.	**Key Terms:** **Suffering:** Physical or mental pain that a person is feeling. **Free Will:** The ability to choose between different possible courses of action. **Necessary:** Absolutely essential; needed to achieve a particular result.	**Key Terms:** **Satan:** The Devil; a powerful evil being, believed by some to be the chief opponent of God. **Punishment:** A penalty or sanction given for a crime or offence. 	**Key Terms:** **Buddha:** The holy man on whose life and teachings Buddhism is based. **Enlightenment:** The state of understanding something; the highest spiritual state that can be achieved. 
Content: The Problem of Evil is the philosophical question of how to reconcile the existence of evil with an omnipotent, omniscient and omnibenevolent God. The Greek philosopher, Epicurus, claimed that the existence of evil proved there is no God.	**Content:** Suffering is a problem for everyone. We all suffer, no matter how lucky we are. Human beings experience pain, illness, loss and finally death. As human beings have free will, they have the ability to choose their actions. For many Christians, freedom of choice can lead to evil.	**Content:** Some religious people believe much of the suffering in this world is caused by humans misusing God's gift of free will, leading to wars, suffering and death of innocent people. Suffering is seen as a necessary risk that comes with designing people rather than robots	**Content:** Buddhism started with Siddhartha Gautama who came to be known as the Buddha. He was born into a life of luxury as a Prince and shielded from seeing any pain or suffering. Meditation is the way in which the Buddha gained enlightenment.
Questions: 1. What is evil? 2. What is the difference between natural and moral evil? 3. What is the Problem of Evil?	**Questions:** 1. What is suffering? 2. Is suffering necessary according to some religious believers? 3. What is Free Will and how can it justify suffering?	**Questions:** 1. What reasons do some religious believers give for humans, rather than God being responsible for evil? 2. Why does God allow suffering?	**Questions:** 1. What was the Buddha's upbringing like? 2. What four sights did he see when he left the Palace? 3. How did he achieve enlightenment?

Week 5	Week 6	Week 7	Week 8
Lesson 5 – What Are Dhamma & Dukkha?	**Lesson 6 – What Is Dependent Arising?**	**Lesson 7 – What Are The 3 Marks Of Existence?**	**Lesson 8 – What Are The 4 Noble Truths?**
Key Terms: **Dhamma:** Buddhist doctrine; often interpreted to mean the teachings of the Buddha. **Dukkha:** Suffering; life as unsatisfactory.	**Key Terms:** **Dependent Arising:** The Buddhist idea of reality; everything arises and is dependent on something else to exist.	**Key Terms:** **Anicca:** Instability or a lack of permanence. **Anatta:** No soul; people do and can change in life.	**Key terms:** **Four Noble Truths:** Four of the most important elements of the Buddhist teaching. **Noble Eightfold Path:** The path to be followed by a Buddhist; the Middle Way
Content: Rather than just physical pain, Dukkha refers to the unsatisfactory nature of the whole of life. Buddhists believe that life is unsatisfactory because of greed and selfishness. Buddhists believe that the things the Buddha taught (Dharma) have always existed. They believe that the Buddha was the first person to be able to understand the teachings fully. He was then able to pass them onto other people.	**Content:** Dependent Arising is a belief that is essential in fully understanding the Buddha's Dharma. It is the belief that everything that is in existence exists because other things are in existence. Therefore, everything is interconnected and everything affects everyone. Dependent Arising may influence the way a Buddhist behaves and have an impact on their moral conduct.	**Content:** The 3 Marks of Existence are sometimes known as the 3 Universal Truths. They are Anicca, Dukkha and Anatta. Anicca is concerned with how resilient a Buddhist is. Dukkha is belief in 3 types of suffering. Anatta is the belief that there is no soul but energy can be reborn.	**Content:** If you are ill and go to a doctor, you want to know what is wrong, what has caused your illness, what will cure it and how to get treatment. The Buddha's teaching can be set out in the same way, as a cure for the world's illness: 1. All life involves suffering. 2. The origin of suffering is craving. 3. If craving ceases, suffering will also cease. 4. The Middle Way.
Questions: 1. What are Dhamma and Dukkha? 2. How do Buddhists use Dhamma to help them to overcome Dukkha?	**Questions:** 1. What is Dependent Arising? 2. How could the concept of Dependent Arising help to prevent or stop suffering?	**Questions:** 1. What are the 3 Marks of Existence? 2. How could the 3 Marks of Existence lead to Buddhists accepting the idea of suffering as part of life?	**Questions:** 1. What are the Four Noble Truths? 2. How can Dukkha be overcome according to the Four Noble Truths?

Week 9	Week 10	Week 11	Week 12
Lesson 9 – What Is Karma?	**Lesson 10 – Assessment Preparation**	**Lesson 11 – End of Cycle Assessment**	**Lesson 12 – Assessment Repair Work**
Key Terms: **Karma:** 'Action.' All actions have consequences. **Samsara:** The cycle of birth, life, death and rebirth. **Nirvana:** The ultimate goal of Buddhists, involving breaking free from the cycle of Samsara.			
Content: Buddhists believe that the ultimate goal is to reach Nirvana. This is not really a place but a state of being. Buddhists believe that we are trapped on a wheel of life. They believe that people will be reborn many times in order to have the opportunity to reach Nirvana, which is freedom from suffering. Buddhists believe that the rebirths that arise are a result of karma.			
Questions: 1. What is Karma? 2. How does the idea of Karma link to Buddhist ideas of what happens after death?			

Year 8 Engineering – Pewter casting

The Brief: A local gift shop would like you to design and manufacture a keyring or pendant to be sold in their shop. They would like you to use natural forms as inspiration and consider the packaging.

The Task: Use CAD, CAM and casting techniques to produce a keyring or pendant.

CAD CAM:

2D design -CAD	Computer software for drawing flat parts
Laser cutter -CAM	A machine which cuts and engraves with a laser

Melting point of Pewter: 170°c - 230°c

The Design Criteria:
A list of targets that you set for yourself to achieve with your product.

The Engineering Design Process:
Response to brief
Research
Design criteria
Ideas
Compare to design criteria
Develop
Test
Make
Test
Modify
Test
Evaluate

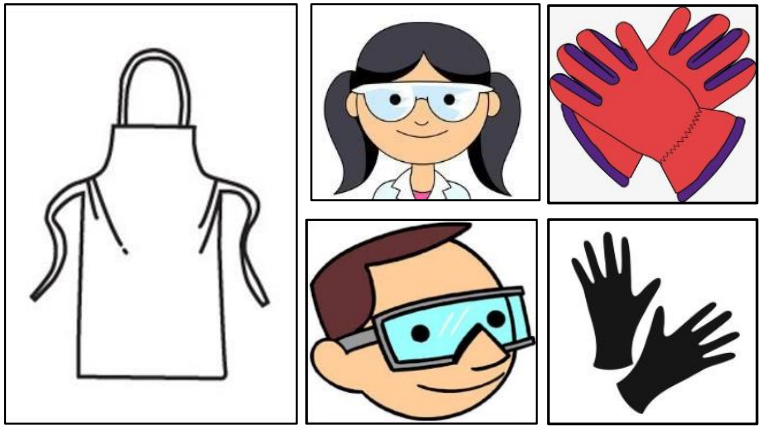
The Making Stages:
Audit and measure
CAD mould
CAM production
Cutting Pewter
Preparing mould
Heating Pewter
Casting Pewter
Remove excess
Emery
Buff
Polish
Drill

Key words:
Alloy
Casting
Ferrous
Nonferrous
Malleable
Composition
Iterative
Modifications
Sustainability
ore

Materials:
Pewter (Non-Ferrous Alloy) – a malleable metal alloy. It is traditionally composed of 85–99% tin, mixed with copper, antimony, bismuth, and sometimes silver or lead, although the use of lead is less common today. Pewter is 100% recyclable.

MDF (Manufactured board) – an engineered wood product made by breaking down recycled hardwood or softwood residuals and then gluing the fibers back together with a resin. The MDF is laser grade MDF.

Health and Safety:



Assessment:
A range of theory tasks and practical assessment

Year 8 Engineering – Pewter casting


Hack Saw


Heat proof gloves


Senior hack saw


Scribe

Brasso


Blow Torch


Buffer


Hand vice


Needle files


Pillar Drill


Pewter casting ladle


Emery paper


File

2D design


Laser cutter

Pewter

DAY OF THE DEAD KNOWLEDGE ORGANISER

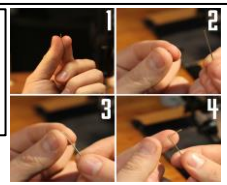
Technology

KEY Vocabulary

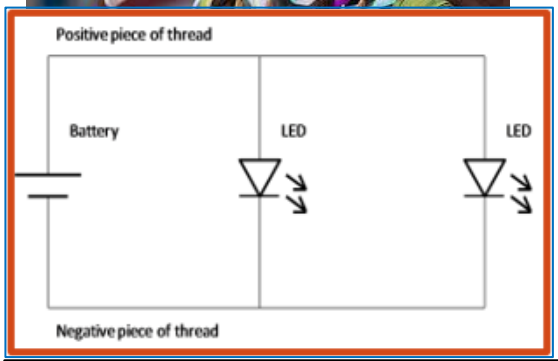
	sewing machine
	needle
	pin / pinned /pinning
	scissors
	Embroidery thread
	thread/ threaded/ threading
	Conductive thread
	Circuit Diagram
	Iron
	Tack/tacked/tacking
	Stitch/ stitches
	Sew/sewn/ sewing/ sewed
	LED Light Emitting Diode

During Day of the Dead, or Día de Muertos, October 31 through November 2, families gather together to remember and honour their deceased loved ones. A sacred, joyous time, Day of the Dead traditions include food and flowers, visits with family members, prayers, and stories about those who have died.

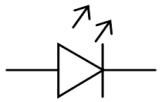
How to thread a needle



How to sew on a button



How to make a simple circuit



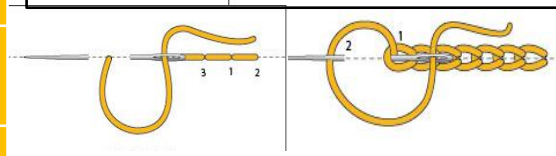
A **light-emitting diode (LED)** is a semiconductor device that emits **light** when An electric current is passed through.

Conductive thread can carry current the same way that wires can

A **switch** controls the current flow through the circuit.

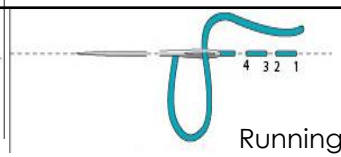
RISK ASSESSMENT

Hazard	Risk	Risk Assessment	Risk Control
What things might cause harm or damage?	What harm or damage might the hazard cause?	How likely is it that an accident might happen? (%)	What should be done to prevent the accident happening?



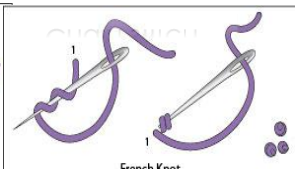
Back stitch

Chain stitch



Running stitch

Lazy Daisy stitch

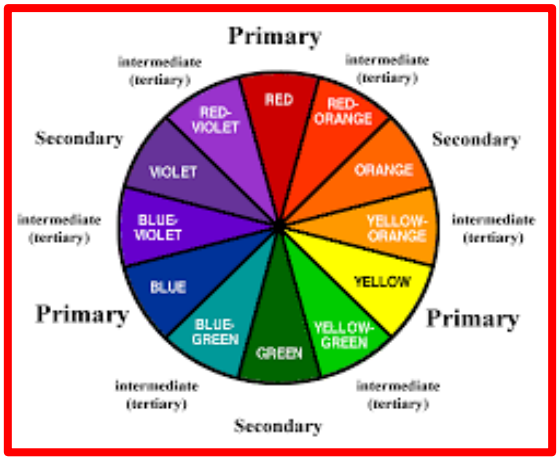


French stitch

Quality Control

Identify 5 tests for quality control

- Even stitches
- Strong stitches
- Size
- Quality of stitching
- Placement of embellishment
- Neatness



Knowledge Organiser

How much dietary fibre do we need?

The NHS recommended daily intake for dietary fibre is:

2–5-year olds, about 15g

5–11-year olds, about 20g

11–16-year olds, about 25g

16 year olds and older, about 30g

1/3 OF THE DIET SHOULD COME FROM STARCHY FOODS

SACN recommends that the dietary fibre intake for adults should be 30g each day. However, if a person has a digestive disorder such as irritable bowel syndrome (IBS) then they may need to alter their fibre intake.

The sources of dietary fibre in the diet

Insoluble fibre: whole grain cereals, wholemeal bread, bran, nuts, corn, oats, fruit and vegetables (especially the skins).
Soluble fibre: oats, barley, rye, most beans and peas, fruit such as bananas and apples, and root vegetables such as carrots.

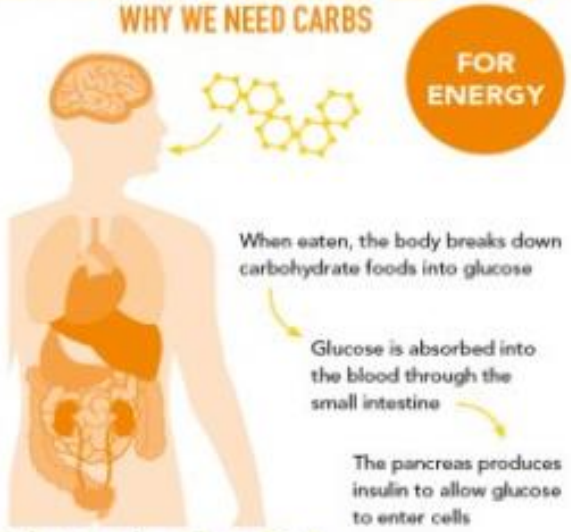
Biological raising agent

Yeast is a living organism grown commercially for bread making and alcohol production. Yeast can bought either fresh or dried.

Yeast + moisture + oxygen + food + time will produce masses of carbon dioxide gas bubbles. Bread needs lots of gas bubbles to raise the dough so yeast is the perfect raising agent when bread making.

To make bread the yeast is added to strong flour and water to form a dough. After kneading the dough must be left to rise or 'prove' in a **warm** environment allowing the yeast to do its work. The yeast is activated by the warmth, oxygen and moisture found in the dough and it feeds on the natural sugars in the flour creating the carbon dioxide gas bubbles. This process is called fermentation.

As the dough rises the gluten strands in the flour form a complex mesh trapping the gas bubbles which creates a soft, spongy doubled in size dough. Traditional bakers knock back the risen dough and give it a second proving. This helps give a better flavour and creates a uniform, finer texture to the finished bread.



The key nutrients in the diet

Nutrients are chemicals found in food which give the body nourishment and are needed for the maintenance of life. The body needs nutrients to perform its daily functions properly. Health problems might occur if any one of these nutrients is lacking in a person's diet.

There are two main types of nutrients:

Macronutrients refer to carbohydrates, protein and **fat** which the body needs in large amounts. They are measured in grams.

Micronutrients refer to vitamins, minerals and trace elements which the body needs in small amounts. They are measured in mg (milligram) or µg (microgram).

The body also needs dietary fibre and water.

Gelatinisation

What happens to carbohydrate

The change that starches undergo during cooking is called **gelatinisation**. When starch and liquid are heated together visible changes occur. The starch granules absorb water causing them to soften and swell up, and this makes the liquid mixture thicken. The thickness of a starch-based sauce is determined by the ratio of starch to liquid. It must be stirred continuously to prevent lumps from forming. Gelatinisation occurs at 66°C and above.

Roux based sauces

A roux is a combination of fat and flour cooked for a particular length of time, depending on the colour of the sauce required. The example on page 173 uses a white roux sauce with milk as the liquid. To make an infused sauce, ingredients such as herbs, carrot, peppercorns and onion are gently heated in milk and or stock in order to flavour the liquid. The flavoured liquid is then used to make the roux.

Basic ingredients in white roux sauces include fat, flour, liquid and seasoning. Other ingredients such as cheese, parsley and mushrooms may be added for flavouring.

The proportion of liquid to flour depends upon the desired consistency of the sauce. If too much liquid is used the sauce will not be as thick as required; if too little is used the sauce will be too thick.

A white sauce can be made using the one-stage method. All the weighed and measured ingredients are placed in a pan and brought to the boil until thickened, or alternatively placed in a jug and cooked in a microwave oven.

types of vegetarian include;

- lacto-vegetarians eat dairy products but not eggs, poultry, meat, fish or seafood
- lacto-ovo vegetarians eat egg and dairy products but not poultry, meat, fish or seafood
- vegans do not eat any foods from animal origin. This includes meat, fish, dairy foods and honey.

COELIAC DISEASE

Coeliac disease is triggered by gluten (a collective term for protein found in cereals, wheat, rye and barley) and causes the body's immune system to attack its own tissues.

Foods that are naturally gluten-free such as rice, corn, maize, potato, buckwheat, polenta, soya and millet can be made into flours which can be used in gluten-free dishes.

All types of plain meat, fish, eggs, cheese, milk, most yoghurts, fruits, vegetables and pulses (peas, beans and lentils) are also naturally gluten-free and can be eaten freely on a gluten-free diet.

Foods such as bread, biscuits, cakes, couscous and pastas must be avoided.

Gluten can also be found in custard powders, thickening starch, some cheese spreads and sauces.

Gluten-free products are widely available and their packaging carries a special symbol.

LACTOSE INTOLERANCE

Lactose intolerance means that the person must avoid cow milk. This can be replaced with other milks such as hazel, hemp, almond, rice or soya milk. Lactose-free products such as cheese are also available.

People with lactose intolerance cannot digest the milk sugar, lactose, because of an enzyme deficiency in the body. The body digests lactose using a substance called lactase to break down lactose into two sugars called glucose and galactose, which can then be easily absorbed into the bloodstream. People with lactose intolerance do not produce enough lactase, so lactose stays in the digestive system where it is fermented by bacteria, leading to the production of various gases, causing the symptoms associated with lactose intolerance.

Many processed foods contain lactose. Lactose intolerant people should read the labels to check.

Understanding how ingredients work

FLOUR	provides bulk and volume in baked products and, through gelatinisation, will thicken liquids.
FAT	gives food products flavour, moisture, colour and traps air.
EGGS	add colour, flavour, will set a liquid and aerate cake and some dessert mixtures.
SUGAR	adds flavour, colour and texture to food. A biscuit will not be crisp if sugar is not used in the mix.
BAKING POWDER	with moisture and heat will produce carbon dioxide bubbles causing a cake/biscuit mixture to rise.
YEAST	given food, moisture, warmth and time produces carbon dioxide bubbles enabling bread dough to rise.