KNOWLEDGE ORGANISER BOOKLET

YEAR 7 – 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'.**

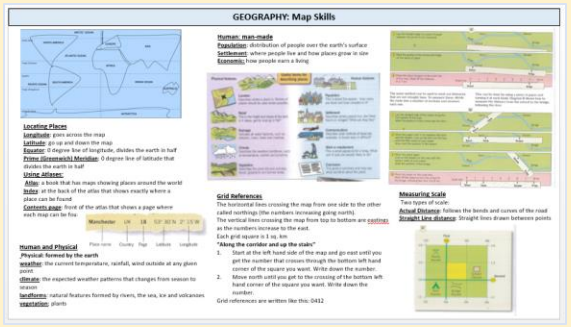
1. L**OOK:** carefully read the section of the *Knowledge Organiser* which you are learning.

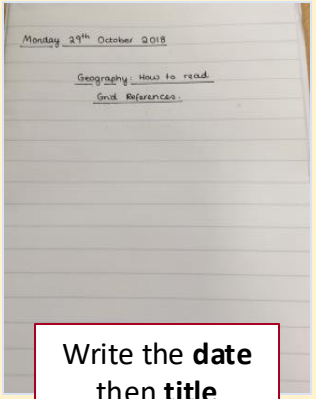
2. **COVER:** cover it over or put it to one side.

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

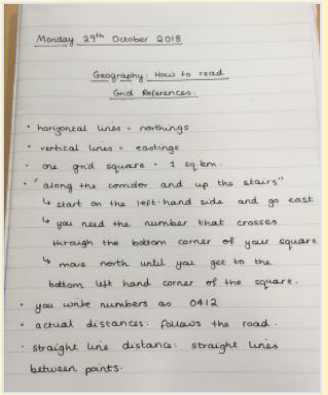
4. **CHECK:** check back over your answer with the *KO*. Anything which is missing or incorrect, add in in **purple pen**.

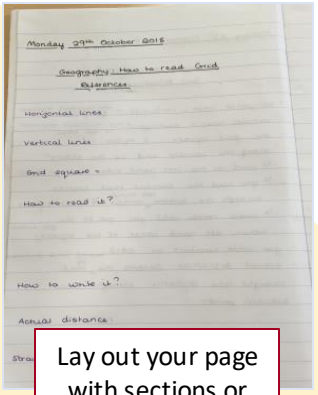
5. **REVIEW:** if you had significant gaps or parts you didn't understand, repeat the process from Step 1.



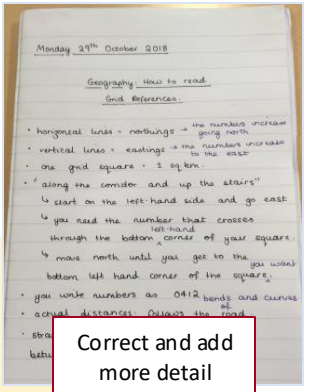


Write the **date** then **title** (**subject: focus**)





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.

KO Year 7 Cycle 1: 'Stories and Society' (Page 1)

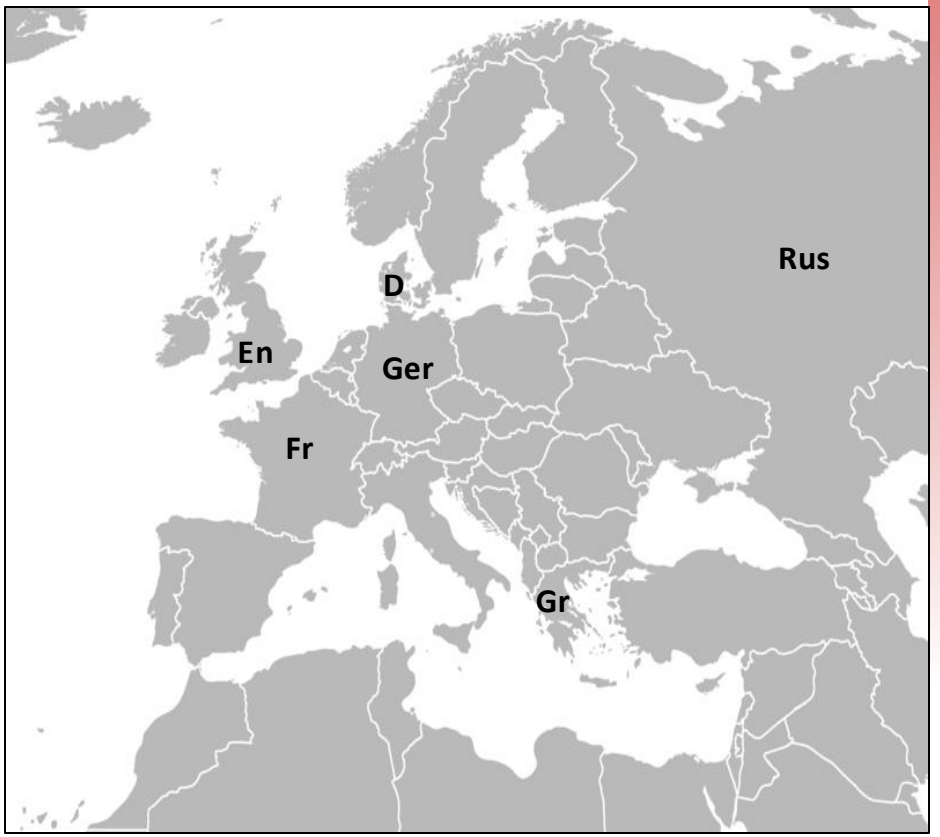
You will be expected to know the information in this Knowledge Organiser by the end of Cycle 1. You will learn a little at a time as part of your homework each week. Your teacher will tell you what to focus on each week.

In addition to the information in this Knowledge Organiser, you will also need to have a good knowledge of the **characters** and **plot** of 'Animal Farm'. However, giving you this information in advance in the Knowledge Organiser would give too much away – we want you to enjoy reading the story to find out what happens! If you miss lessons when we read the book, it is your responsibility to catch up with each chapter. If you don't have your written copy, or if you would like to listen to the story being read, there is a good audio version here: https://www.youtube.com/watch?v=1gwJCJ1TD50. (Ch1 - 0:06; Ch2 - 17:58; Ch3 - 33:59; Ch4 - 47:58; Ch5 - 58:27; Ch6 - 1:18:17; Ch7 - 1:35:43; Ch8 - 1:58:50; Ch9 - 2:24:00; Ch10 - 2:45:58)

Key Authors and Dates	
Aesop (Greece)	6th century BC (2600 years ago)
Charles Perrault (France)	17th century (died 1703)
The Brothers Grimm (Germany)	19th century (died 1863)
Hans Christian Andersen (Denmark)	19th century (died 1875)
George Orwell (England).	20th century (died 1950)
The Russian Revolution took place in 1917–1923.	
'Animal Farm' was published in 1945	

In Cycle 1, the writers and ideas we discuss are from several countries. You need to be able to identify these countries on the map.

England – George Orwell
France – Charles Perrault
Germany – The Brothers Grimm
Denmark – Hans Christian Andersen
Greece – Aesop
Russia (previously the USSR) – the country Orwell used as inspiration for 'Animal Farm'



KO Year 7 Cycle 1: 'Stories and Society' (Page 2)

English

	Key Vocabulary	Definition	In a sentence
1.	text (n)	In English, any piece of (usually printed) piece of writing.	If you can't remember something, go back to the **text** and re-read the relevant section.
	author's (or authorial) **intent** (n)	What the writer wants readers to think about or feel when reading.	Orwell's **intent** is that we should think carefully about how countries are led.
	reader's **reaction** or **response** (n)	The way areader thinks or feels when they read a text.	Sometimes we have a strong personal **response** to books and films; other times, we might have to think about the possible **reactions** of other people.
	fable (n)	A short story with a moral message, usually with animals as characters.	Aesop is famous for his **fables**, which have a clear moral at the end.
	universal (adj)	Existing everywhere or involving everyone.	Ideas such as power, relationships, grief and fairness are **universal**.
	moral (n)	A message or lesson that we can learn from a story or event.	The **moral** of 'The North Wind and the Sun' is that gentle persuasion is often better than force.
2.	allegory (n), allegorical (adj)	A story that has a partly hidden moral or political meaning. (It has a similar meaning to the word **fable**).	Animal Farm' is an **allegory** about revolution and power in society. It is an **allegorical** story.
	maxim (n)	A short and simple statement containing a rule or a principle.	One of Boxer's **maxims** is 'Napoleon is always right' – this rule guides how he behaves.
	idiom (n)	A phrase that is commonly used and understood, but the meaning isn't always obvious from the words that are used (e.g. 'It's raining cats and dogs.')	Many **idioms** in the English language have their origins in Aesop's fables, because the stories are so well known. (e.g. 'Slow and steady wins the race' and 'the lion's share').
	audible (adj)	Able to be clearly heard.	When we read aloud in lessons, we need to be **audible**.
	oral tradition (n)	The tradition of preserving and passing on of knowledge and culture by telling stories from one generation to the next. (Spoken, not written).	The Brothers Grimm collected together fairy tales from the **oral tradition** and wrote them down.
3.	academic writing (n)	Formal, precise writing which is used to express ideas carefully and in detail.	In our essays, we need to use an **academic writing** style.
	hedging language (n)	Words and phrases such as 'possibly' and 'could suggest' that present ideas as less certain	We use **hedging** to present possible interpretations of the texts that we read.
	pen name (n)	A name used by an author and printed on their books instead of their full real name.	George Orwell is the **pen name** of Eric Arthur Blair.
	tyrant (n)	A ruler who has unlimited power over others and uses it unfairly and cruelly.	In 'Animal Farm', Napoleon becomes a **tyrant**. The farm is ruled by **tyranny**.
	rebellion, revolution (n)	Organised and often violent action against a government or ruler, by a group of people trying to change the way their country is run.	The **rebellion** on the farm leads to Mr Jones running away.

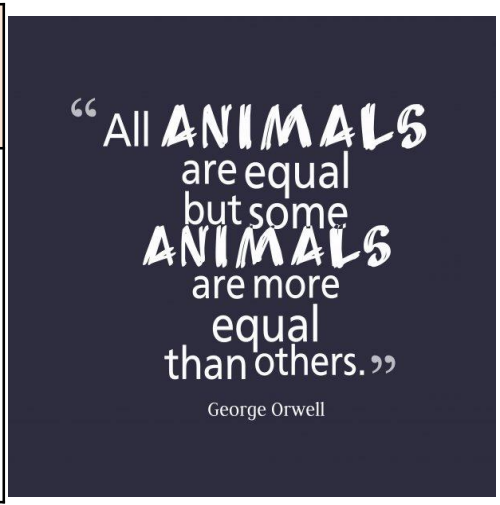
KO Year 7 Cycle 1: 'Stories and Society' (Page 3)

	Key Vocabulary	Definition	In a sentence
4.	liberty (n)	The freedom to live as you wish and go where you want (so long is this doesn't harm someone else's liberty). The opposite of **oppression**.	In Britain, we have a great deal of **liberty** in our lives. However, in many other countries, people are still fighting for their **liberty** and their rights.
	persuade (v), persuasion (n)	Using language and explanation to make someone do or believe something.	In 'Animal Farm' the pigs **persuade** the other animals that they are making good decisions and looking after them.
	manipulate (v)	To influence or control someone for your own gain, often without that person knowing it (often using language and emotion, rather than force)	In 'Animal Farm', the pigs **manipulate** the other animals: they bend the truth, lie, cause confusion and impress the animals with their intelligence so that the animals believe what they say.
	eloquent (adj)	Using language to express ideas and opinions very clearly and well, so they have a strong effect on others.	Snowball is very **eloquent and** is always able to convince the other animals to believe what he says.
	oppression (n), oppress (v)	A situation in which people are ruled in an unfair or cruel way and prevented from having opportunities and freedom. The opposite of **liberty**.	In Britain, we try to run the country in a way that means people are free from **oppression**: we have **liberty** in our lives.
	violence (n)	Extreme force, in words or actions, that is intended to cause harm.	Many tyrants use **violence** to control people.
5.	propaganda (n)	Information, ideas or pictures that only show one side of a situation, which are discussed and spread in order to influence people's opinions.	In 'Animal Farm', the pigs use **propaganda** to make the situation seem much better than it is for the other animals.
	rights (n)	An entitlement to what we need to be able to live a full and healthy life.	Our school is a **Rights** Respecting School, which means teachers and students work together to promote and protect the **rights** of all young people in our community.
	power (n)	Control or influence over people and things. Someone's ability to do something.	The pigs in 'Animal Farm' eventually have all the **power**.
	totalitarianism (n)	A political system in which the people in power have complete control, and no-one is allowed to go against them.	In a **totalitarian** state, there is very little liberty, and violence is often used to stop protests.
	narrative (n)	A story; a spoken or written account of events. (In English we often use the word 'narrative' instead of 'story').	Most people enjoy **narratives** that contain a few surprises and twists.
	allusion (n)	A brief, indirect reference to something, making us think of it.	The film 'Shrek' makes **allusions** to many different fairy tales. Many books and films make **allusions** to other books and films: the more we know, the more we notice.

KO Year 7 Cycle 1: 'Stories and Society' (Page 4)

	Key Vocabulary	Definition	In a sentence
6.	convey (v)	Express a thought, feeling or idea so that it is understood by others.	The fables **convey** moral messages to readers.
	society (n)	A large group of people who live alongside each other in an agreed and organised way. This word can often be used to describe everyone who lives in a country.	We should always consider the needs of both older and younger members of **society**.
	corrupt (adj)	Dishonestly using a position of power for personal gain.	The pigs in 'Animal Farm' are **corrupt** because they always benefit the most from all their decisions.
	exploit (v)	Use someone or something unfairly for your own gain.	In 'Animal Farm', the pigs **exploit** the other animals by making them work very hard. Boxer's loyalty and willingness to work is **exploited**.
7.	satire (n), satirical (adj)	A way of criticising people or ideas in a humorous way, which is often linked to politics and governments/rulers.	In 'Animal Farm', Orwell uses **satire** to criticise some of the governments and rulers of the early 20th century.
	quotation (n)	In English, a word or phrase taken from a longer piece of writing, repeated by someone who wasn't the original author.	In English, we use **quotations** from texts as evidence to support our ideas.
	context (n)	The wider situation in which something happens or exists.	To understand something fully, we have to think about its **context**.
	character **function** (n)	The purpose of a character in a text; how they help to **convey** ideas.	In 'Animal Farm', Napoleon's **function** is to show the danger of tyrants.

Hedging Language: Words and phrases to express our ideas as possibilities
It can be argued that…
It might be the case that…
Orwell might have done this in order to..
It's possible that…
This could be interpreted as…



Words to describe people / things with power:		**Words to describe people / things with little or no power**	
powerful	commanding	powerless	frail
dominant	potent	weak	insignificant
effective	convincing	submissive	helpless
influential	formidable	ineffective	insignificant
controlling	tyrannical	unimportant	vulnerable

KO Year 7 Cycle 1: Cells

Lesson 1 Microscopes

Magnification is when we make something appear larger than it actually is.

Resolution is the actual detail an image shows.
A higher resolution means more detail in the image.

Using a Microscope.

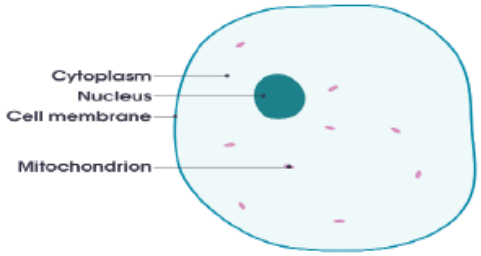
- Adjust the lowest objective lens so that it is over the hole in the stage.
- Turn the large focusing wheel to make the gap between the stage and the objective lens as small as possible.
- Adjust the light source so that the light is reflected up into the hole in the stage.
- Place the slide on the stage
- Look into the eyepiece lens
- Slowly turn the focusing wheel so that the gap between the stage and the objective lens gets bigger.
- Keep turning to focus the image.
- To magnify the image, switch the objective lens to the next magnification and use the small focusing wheel to focus the image if needed.

Lessons 2 and 3 Plant and Animal Cells

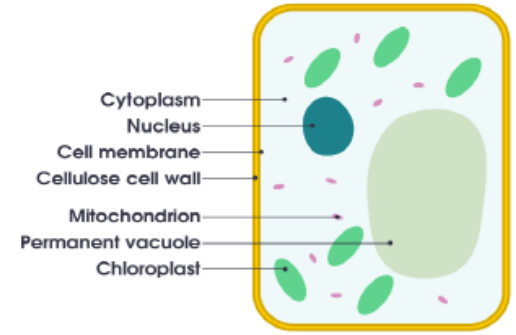
"Cells" were first discovered by **Robert Hooke** when he looked at a piece of cork under a microscope.

Cells are made up of different parts called **organelles.**

Animal Cell



Plant Cell



Nucleus – Contains the DNA and controls the cell

Cell Membrane – Controls what goes in and out of the cell

Cytoplasm - Jelly like, all chemical reactions occur in here.

Mitochondria – Respiration occurs inside to release energy for the cell to use.

Cell Wall – Protects the cell and gives it structure

Chloroplasts – Carry out photosynthesis to make food for the plant.

Vacuole – Filled with cell sap and gives the cell shape.

Animal Cells contain a nucleus, cell membrane, cytoplasm and mitochondria.

Plant cells contain a nucleus, cell membrane, cytoplasm and mitochondria **PLUS** a cell wall, chloroplasts and a vacuole.

KO Year 7 Cycle 1: Cells

Lesson 4
Specialised Cells

Cells are designed to carry out the job they perform.

Egg cell (ovum)
Job: Reproduction to be fertilised by sperm
Features: Nucleus contains half the genetic info to create a baby and contains lots of energy to allow egg to develop if it is fertilised.

Sperm cell
Job: Reproduction to fertilise the egg cell
Features: Contains half the genetic info to create a baby and has a tail to swim to meet the egg

Neurone (nerve cell)
Job: Help nerve impulses move around the body
Features: Long and thin, can send electrical impulses large distances around the body

Plant Palisade cell
Job: Help the plant photosynthesis and make food
Features: Lots of chloroplasts to trap light energy for photosynthesis

Plant Root cell
Job: Help the plant take in water through the roots
Features: large surface area so they can absorb more water from the soil.

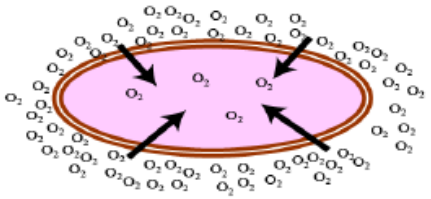
Lesson 5
Movement of Substances

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

This happens in liquids and gases but not solids because the particles can only vibrate in a solid, but can't move from place to place

Substances that move in and out of cells by diffusion include

- **Oxygen** into cells for respiration
- **Glucose** into cells for respiration
- **Carbon dioxide** out of cells from respiration and into leaf cells for photosynthesis
- **Water** into root hair cells



Particles diffuse faster at higher temperatures because the particles have more kinetic energy so move faster.

Lesson 6
Unicellular Organisms

Unicellular organisms are made up of only one cell
e.g. Amoeba and Euglena

Multicellular organisms are made up of more than one cell. All species of animals, land plants and most fungi and algae.

Amoeba
- Have no fixed shape
- Found in fresh water, salt water, wet soil and inside animals
- Moves by changing shape
- An amoeba **reproduces** by splitting into two cells
- This is called **binary fission**

Euglena
- Euglena are found in freshwater
- The eyespot detects light and move using their **flagellum** to 'swim' towards the light.
- Euglena have **chloroplasts** and make their own food by **photosynthesis**
- Euglena also reproduce asexually by **binary fission**

KO Year 7 Cycle 1: Cells

Lesson 7
Levels of Organisation

Tissues are a group of cells with similar structures, working together to perform a shared function.
eg **muscle tissue** is made up of lots of muscle cells.

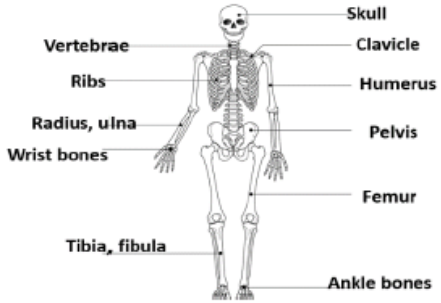
Organs are made up of a group of tissues, working together to perform specific functions.
eg the **Heart** is made up of muscle, connective, nervous and fat tissues

Organ Systems are made up of a group of organs with related functions, working together to perform body functions.
eg the **Digestive system** which is made up of many organs including the mouth, stomach, small and large intestines.

Circulatory System- transports blood around the body
Nervous System- allows us to sense and react to our surroundings
Reproductive System- used to produce young
Respiratory System- for gas exchange in and out of the body

Lesson 8
The Skeleton

Bones are living tissue supplied by blood. They are growing all of the time. They can repair themselves when damaged. Calcium and other materials make bones strong.



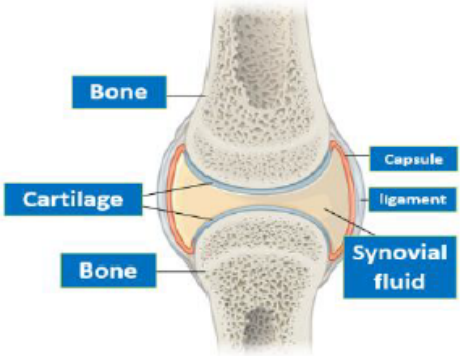
Functions of the skeleton:

- **Protection** – skull protects the brain, rib cage protects the heart and lungs, vertebrae protect the spinal cord.
- **Support** – the skeleton provides a framework for muscles and organs to connect to.
- **Movement** – the skeleton has joints with muscles, ligaments and tendons allowing movement.
- **Blood production** – long bones contain bone marrow which makes blood cells

Lesson 9
Movement – Joints

Joint Where two or more bones join together.

A Synovial joint



- **Cartilage** – soft tissue at the end of a bone
- **Synovial fluid** –fluid found in the joint which stops bone rubbing against bone
- **Ligament** – joins bone to bone
- **Tendon** – joins muscle to bone

Lesson 9
Movement – Joints (continued)

Types of joint

- **Pivot** – the ends of the bones are covered in cartilage, allows 360° movement
- **Hinge** – works like a lever and allows 180° movement
- **Fixed** – forms between two bits of bone that don't move
- **Ball and socket** – an example is the hip joint, allows 360° movement

Lesson 10
Movement – Muscles

Muscles

- Are a type of tissue which contains specialised cells which contract.
- Have lots of mitochondria for respiration to produce energy.
- Have a good blood supply.

Three main types of muscle

- **Cardiac** – found in the heart
- **Skeletal**– attached to bone, the main type of muscle
- **Smooth** – used for involuntary movements like in your gut.

Major muscle groups

Bicep: Flex the arm (bend towards the body)

Triceps: Extends the arm (straightens away from body)

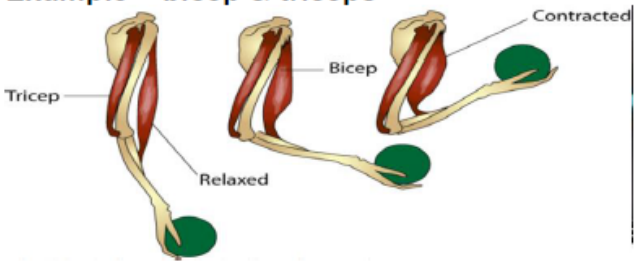
Quadriceps: Extends the lower leg

Abdominals: Move the torso and helps with breathing

Antagonistic pairs

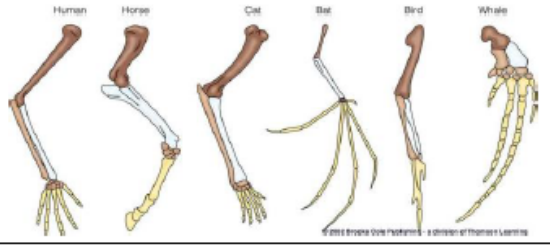
Muscles only pull. Two muscles that work at a joint to move are called antagonistic pairs.

Example – bicep & triceps



Homologous Structures:

- The chicken wing and the human arm are examples of homologous structures.
- This means they have a similar underlying structure but have different functions.

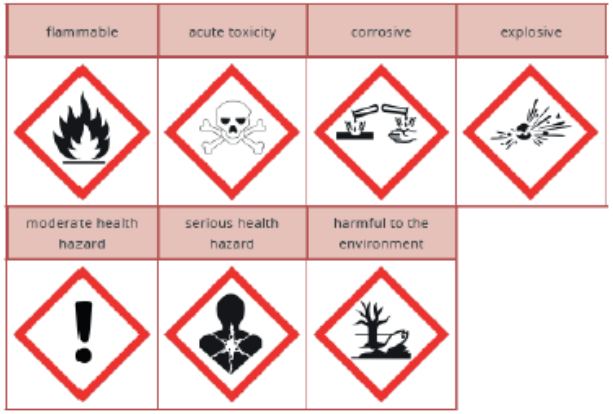


KO Year 7 Cycle 1: Matter

Lesson 1
Safety

Your teacher will have made the safety rules for the laboratory very clear. Below are some important safety rules, which should always be followed, but there may be others which you need to consider in addition to these.

- Always wear eye protection during a practical.
- Carry out a practical while standing up.
- Do not eat or drink in the laboratory.
- Tie long hair back and tuck loose clothing in during practicals.
- If something is spilled or broken, tell the teacher.
- Ensure that the floor and work space is clear of obstacles.



Lesson 2
Measuring Skills

When taking measurements in science there are various different pieces of equipment you can use and different units as well

Below are examples of measurements the equipment you can use and some units.

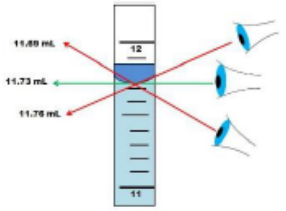
Measurement Length
Equipment Ruler, trundle wheel
Units cm, m, Km

Measurement Mass
Equipment Top Pan Balance, scales
Units g, Kg

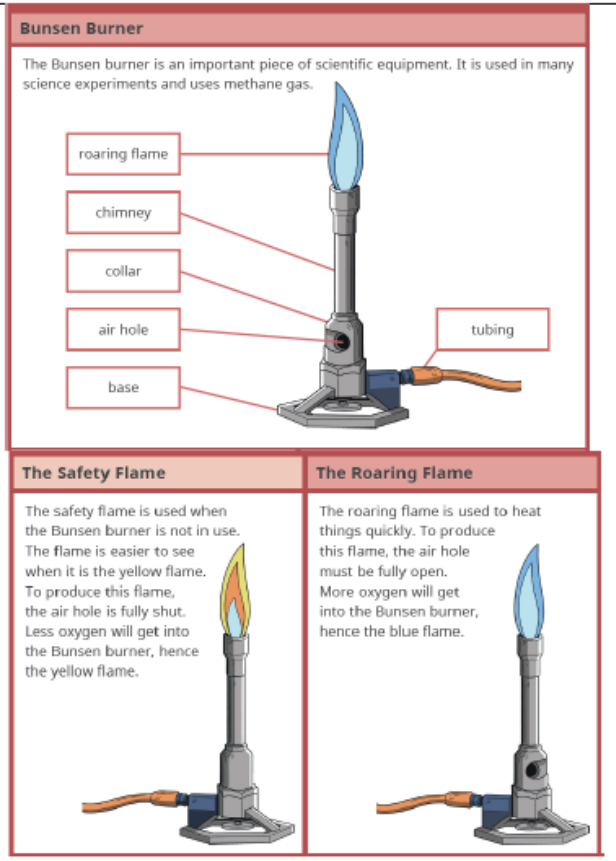
Measurement Temperature
Equipment Thermometer
Units °C

Measurement Time
Equipment Stopwatch
Units seconds (s)

When making measurements always get down to eye level.



Lesson 3
Bunsen Burners



Lesson 4
States of Matter & Particle Model

Matter: any substance that has mass and volume.

Mass: how much of something there is

Volume: how much 3D space something takes up

Matter can exist in three physical states:

- Solid
- Liquid
- Gas

	Solid	Liquid	Gas
Can it be compressed?	✗	✗	✓
Can it flow?	✗	✓	✓
Does it have a fixed shape?	✓	✗	✗

All substances are made up of particles.

Particles are attracted to each other.

The particles move around.

The higher the temperature of the matter the more the particles move around

Solid

- Particles in a fixed arrangement
- Particles vibrate around a fixed point
- Particles are close together
- Very strong attraction between particles

Liquid

- Particles in an irregular arrangement
- Particles move around each other
- Particles are close together
- Strong attraction between particles

Gas

- Particles in a random arrangement
- Particles move randomly in different directions and at different speeds
- Particles are far apart
- Weak attraction between the particles

Lesson 5
Changes of State

Changes of state - Substances can change state, usually when they are heated or cooled.

The closeness, arrangement and motion of the particles in a substance change when it changes state.

Melting – The process that occurs when a solid turns into a liquid when heated.

Evaporating – The process by which a liquid changes state and turns into gas.

Condensation – A change in state in which gas becomes liquid by cooling.

Freezing – A change of state in which liquid becomes solid by cooling.

Some chemicals do not exist as a liquid.

- Going from a solid to a gas is called **sublimation**.
- Going from a gas to a solid is called **deposition**.

KO Year 7 Cycle 1: Matter

Lesson 6
Density

Density is the amount of mass in a given volume.

Denser objects sink in less dense fluids.

General rule for density:

- Solids > Liquids > Gases
- We know that this is not always the case.

When objects are heated their particles move further apart, this causes their density to decrease.

Limitations to the particle model:

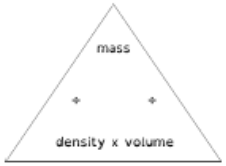
- Only 2D
- Don't show movement of particles
- Don't show particle interactions

Some substances have a higher density as liquid then as a solid

Lesson 7
Density calculations

Density is a measure of how heavy an object is for its size.

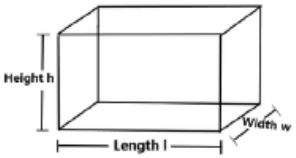
Density = mass ÷ volume
Mass in kg or g
Volume in m^3 or cm^3
Density in kg/m^3 or g/cm^3



The density of regular solids can be found by determining the mass and volume of the solid, and then calculating the density.

Mass is measured with a balance.

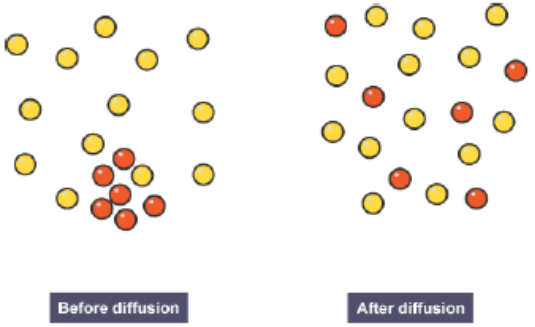
For **regular solids**, you can calculate the volume if you measure the length of the sides using a ruler.



The volume of a cuboid is equal to:
length × width × height

Lesson 8
Diffusion

Diffusion is the movement of particles from a high concentration to a low concentration



Diffusion can also happen in liquids - particles in liquids can move around each other, which means that eventually they are evenly mixed.

Diffusion in liquids is slower than diffusion in gases because the particles in a liquid move more slowly. It happens faster if the temperature is increased.

Diffusion does not take place in solids as the particles are fixed in solids and cannot move round each other.

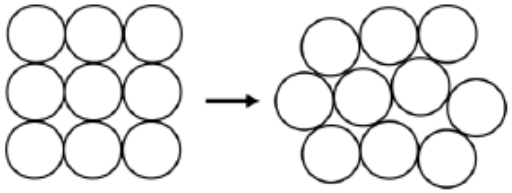
Lesson 9 & 10 Particle Circus

Making Observations:

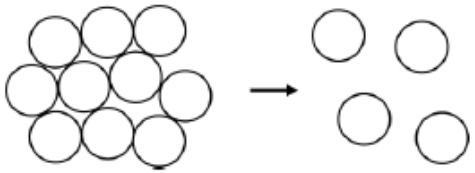
- Notice things using your senses
- Writing down what you have seen change, in as much detail as possible
- A valid observation is that there has been no change

If an object changes state (by heating)

- Particles in a solid will vibrate so much they move further apart and begin to move



- Particles in a liquid will move so fast they get further apart and will begin to move freely



Lesson 11
Elements, Mixtures and Compounds

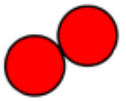
Atoms are the smallest particle of an element that can exist.

An **element** is a pure substance made from one type of atom.

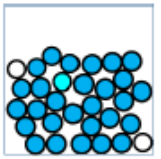
Compounds are substances that are made up of two or more atoms chemically bonded together in a fixed ratio.

Molecules are substances that contain two or more (non-metal) atoms, chemically bonded together.

- Molecules can be elements, two or more of the same atom.
- Molecules can be compounds, two or more different atoms.



Mixtures can be defined as impure, as they are made from two or more different substances that are not chemically joined together.



KO Year 7 Cycle 1: Energy

Lessons 1 & 2
Conservation and Energy Stores

Energy is defined as having the ability to do work.
It has a numerical value and is usually measured in **Joules (J)**

Conservation

to look after something and keep it the same as it has always been.

Conservation of Energy

Energy cannot be created or destroyed, it can only be transferred from one store to another

Energy isn't something that you can see or pick up – we only notice it when it transferred between different objects and stored in different ways. We use these words to describe energy stores.

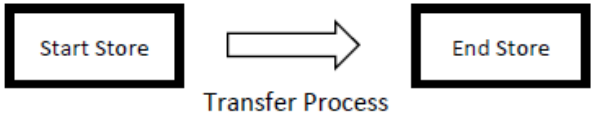
Chemical- found in chemical reactions.
Kinetic- found in moving objects.
Gravitational potential- found in objects raised above the ground.
Elastic potential- Energy found in stretched objects.
Magnetic- attraction and repulsion between magnets.
Electrostatic- Attraction and repulsion between charges.
Thermal/ internal - Energy stored as heat e.g. fire.
Nuclear – Energy from the splitting or fusing of atoms.

Lesson 3
Energy Transfers and Energy Diagrams

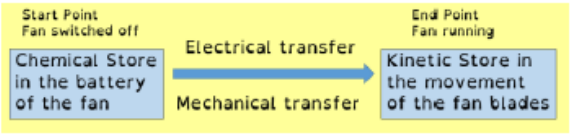
Energy can be transferred from one store to another but it cannot be created or destroyed. There are 4 energy transfer processes:

- **Mechanical** - when a force acts and something moves.
- **Electrical** - when a current flows.
- **heating** - because of a temperature difference.
- **radiation** - a wave such as light, IR or sound.

We can show the idea of energy transferring using flow diagrams (energy transfer diagrams)



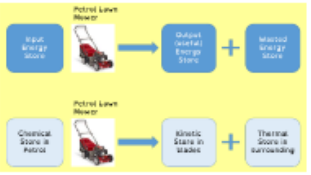
e.g a battery-operated fan



Lesson 4
Energy Dissipation and Efficiency

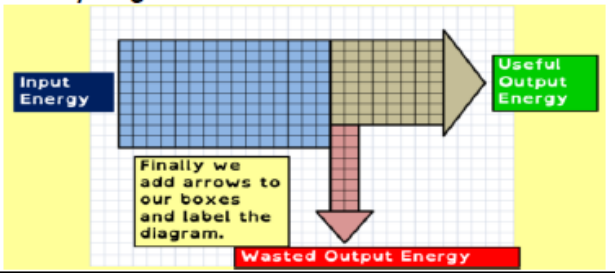
Dissipation of Energy- When energy spreads out it gets less useful.

Input Store - the total amount of energy going into a device or machine.
Output Store - the amount of energy that is transferred into a useful store by the device or machine.
Wasted Store- the amount of energy that is transferred into a wasted store (non-useful store) by the device or machine.



Efficiency - is a measure of how much of the Input energy from a device ends up in a Useful (Output) energy store. The **more efficient** a machine the **less** energy is **dissipated.**

Sankey Diagrams



KO Year 7 Cycle 1: Energy

Science

Lessons 5 & 6
Temperature, Heat and Conduction

Temperature is a measure of how hot or cold something is The most commonly used unit for temperature is degrees Celsius °C.

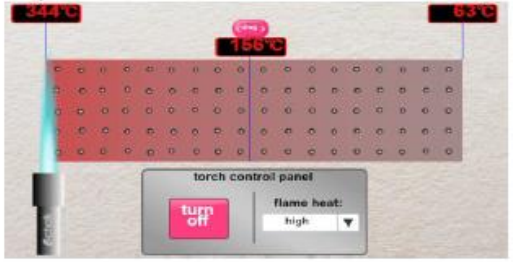
Temperature can also be measured in degrees Fahrenheit °F or Kelvin K. The coldest temperature possible is called Absolute Zero. This is 0K or -273.16 °C.

Using a Thermometer – Always read from the middle of the meniscus at the top or bottom.

Heat (Thermal Energy) - The heat an object contains is the amount of energy in its thermal energy store, measured in joules (J).
Heat Energy depends on two things.

1) The mass of the material – the bigger the mass the more heat energy stored
2) The temperature of the material – the higher the temperature the more heat energy stored.

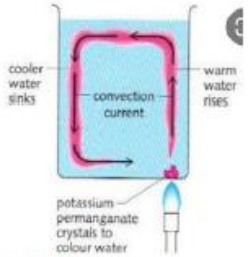
Conduction - The transfer of heat energy from particle to particle by vibrations.



Lessons 7 & 8
Convection and IR Radiation

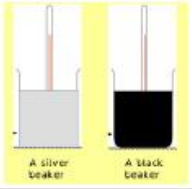
Convection - the transfer of energy by particles vibrating and carrying their energy with them and is driven by different densities in the gas or liquid.

Convection **cannot** happen in **solids** because the particles cannot move past each other, they can only vibrate.



Infra-Red Radiation (IR)

- All warm objects give off Infrared Radiation.
- Infrared Radiation travels in straight lines as waves (like light).
- Infrared will travel out from warm objects in ALL directions.
- Infrared Radiation does NOT need particles to travel through and so can pass through space (vacuum)
- Infrared Radiation travels at the speed of light.



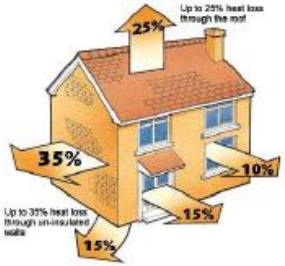
Lessons 9 & 10
Reducing Heat Loss

Dissipation of Energy- When energy spreads out it gets less useful. In our homes we want the thermal energy to be conserved within the walls of our home and not spread out.

A house that dissipates energy easily is a house that will cost more money to keep warm

Heat energy can escape from houses by the processes of **Conduction**, **Convection** and **IR Radiation**

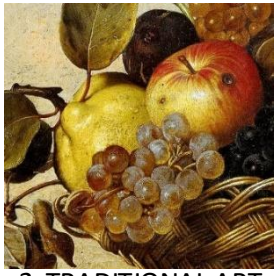
Insulation reduces the energy dissipating.



1) Loft Insulation
2) Cavity Wall Insulation
3) Double Glazed Windows
4) Draught Proofing
5) Curtains and Carpets
6) Reflective surfaces behind radiators

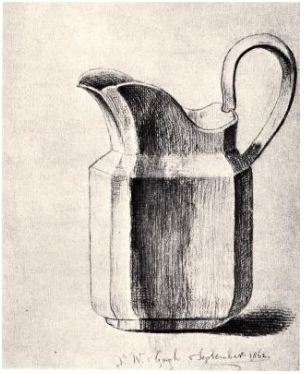
Yr7 Mark Making -Artist References

1. TRADITIONAL ART Pre-historic Cave painting



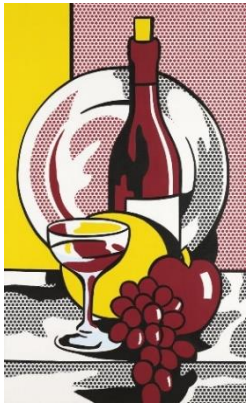
2. TRADITIONAL ART 'Basket of fruit' by **Caravaggio** 1599

Threshold Concept: Artists observe, make marks & respond to the world around them.



3. MODERN ART ''Milk Jug'' by **Vincent Van Gogh**,1862

4. MODERN ART 'Coca Cola 3 Bottles' by **Andy Warhol**, 1962



5. MODERN ART 'Still Life ' by **Roy Lichtenstein**, 1972

6. MODERN ART 'Still Life Fruits' by **Mary Fedden**, 1990

7. CONTEMPORARY ART 'Sundae Bliss' by **Sarah Graham**, 2014

Marks can be combined in infinite ways and have the potential to remind, provoke, suggest, challenge, express, celebrate and portray.

Art History- Key Terms & Facts:

1. Pre-historic Cave painting
A hand stencil found in a cave in Indonesia dates to at least 39,000 years ago, making it among the oldest artworks in the world. Images painted, drawn or carved onto rocks and cave walls reflect one of humans' earliest forms of communication.

2. Caravaggio (1571 -1610) was a leading Italian Renaissance painter of the late 16th and early 17th centuries who became famous for his realistic observations, large-scale religious artworks and dramatic use of light and shade (called 'chiaroscuro').

3. Vincent Van Gogh (1853–1890) was a Dutch Post-Impressionist painter . His work had a great influence on modern art because of its striking colours, brushwork and emotional power.

4. Andy Warhol (1928 – 1987) was an American artist, film director and producer who was a leading figure in the pop art movement. **Pop art** is an art movement that emerged in the 1950s & 1960s in Britain & the United States. These artists made art about 'popular' things such as TV, celebrities, fast food, pop music and cartoons.

5. Roy Lichtenstein was born in New York in 1923. He became famous for his bright and bold paintings of comic strip cartoons as well as his paintings of everyday objects. He was part of the Pop Art movement. Lichtenstein chose colours carefully, to imitate the four colours of printers' inks. He also used Ben Day dots, a system invented to increase the range of colours available to newspaper printing.

6. Mary Fedden (1915 -2012) was born in Bristol in 1915. She attended The Slade School of Arts London and travelled widely which heavily influenced her work. She was the first female teacher at the Royal College of Arts and also worked as a fine artist and set painter. She created art in a bold, expressive style with vivid, contrasting colours, combing still life with landscapes.

7. Sarah Graham is a contemporary artist. She paints subjects that evoke memories of childhood. She uses a technique called '**Hyperrealism** 'to create wonder and intrigue by making objects appear real, yet they are a two-dimensional illusion.

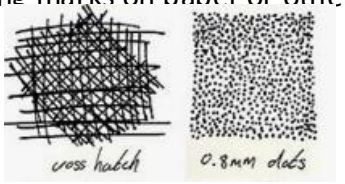
Yr7 ART C.1 Knowledge Organiser: Mark Making

Art History: There are 3 key phases in Art History:

1. **Traditional Art** = Art that is made using skills and knowledge which are passed down through generations from master craftsmen to apprentices.
2. **Modern Art** = Art in which the traditional styles and values of the past have been thrown aside in a spirit of experimentation, in particular art created between the late 19th and the late 20th centuries.
3. **Contemporary Art** = The art of today, produced in the second half of the 20th century or in the 21st century.

Drawing & Painting Techniques:

Drawing is a form of visual art that involves making marks on paper or other surfaces.



Mark Making: is used to describe the different lines, patterns, and textures we create in art.
Keywords: Hatching, Cross hatching, Stippling

Recording from observation:

Primary sources = drawing from something in real life
Secondary sources = drawing something from a picture

Grades of Pencils: Pencils come in different grades.
The softer the pencil the darker the tone. **H = hard, B= black**

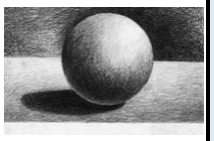
Hyperrealism is a form of art that resembles a high-resolution photograph.

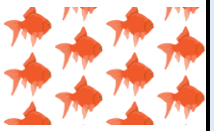
Printmaking Techniques:

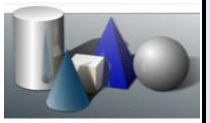
Mono-printing is the process of making a print using 'mark making'. The mono-print is a form of printmaking where the image can only be made once, unlike most printmaking which allows for multiple originals. Mono-printing is mainly used for fine art prints and textiles work.

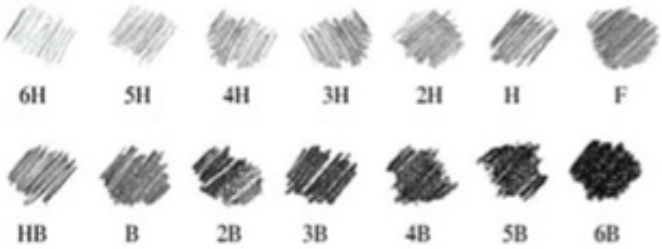
Additive Mono-prints: Additive prints are made by drawing patterns & shapes directly onto an inked surface, usually a perspex sheet.
Lay paper on top of the inked surface to pick up the design.

Subtractive Mono-prints: Subtractive prints are made by applying the paper, face down, directly to the inked surface and drawing your design on the back of the paper whilst it is in position.









The Elements of Art:

1. Line : A line is a path made by a point moving across a surface. It can be straight, curved, dotted, thick or thin. Line defines shape, it is the outer edges of something.

2. Tone: The lightness or darkness of a surface (you can create different tone by using different grades of pencil /or by pressing harder or lighter)

3. Texture: The feel or appearance of a surface. Texture can be real or implied. Texture can be described by using words like: rough, smooth, furry, shiny, prickly.

4. Colour: Choices of colour and the relationships between colours have a huge influence on how a piece or art or design looks and feels and the emotions it provokes.

Colour relationships : Colours can be similar (harmonious) or very different (contrasting).

5. Pattern: A pattern is a design in which lines, shapes, forms or colours are repeated.

6. Shape: Shape is an area enclosed by a line. It is 2 Dimensional & can be geometric or organic.

7. Form: Forms are 3 dimensional. They occupy space or give the illusion of appearing 3 dimensional.

Using ICT

Year 7 - ICT @ KCC Knowledge Organiser

File Management

Using computers and the internet to store, access and organise information carries some risk. You need to take responsibility to make sure files are not lost, corrupted or viewed by the wrong person.

Saving your work

It is very important to save your work regularly. A saved piece of work is easily recovered if something goes wrong. To save your work use 'Save' or 'Save As' from the 'File' menu. Do not rely on auto save.

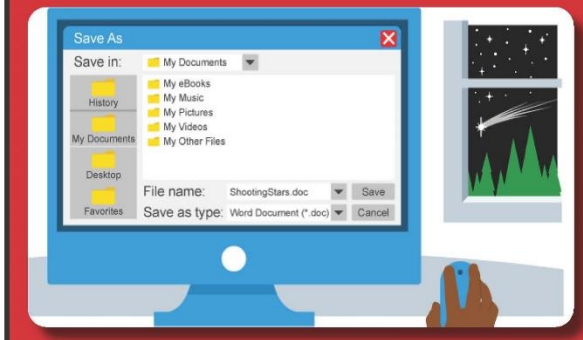
The first time you save your work the 'Save As' dialogue box will appear. Name your file and choose which folder to save it in. From now on, when you save your work it will overwrite the original file with your changes.

Use 'Save As' to:

- save something for the first time
- save a copy or a different version of your work

Use 'Save' to:

- save your changes (this will overwrite the original file)
- save your work quickly



You can use shortcut keys to save your work. **Press CTRL-S**

VLE

Virtual Learning Environment. You can access lots of information from here. From the **Subjects** tab you can gain access to all the information from all the different subjects you will be studying this year.

Log On & Passwords

This is the first screen that you will see when you use a computer at KCC.

Username

Your username will be the same throughout all of your time at KCC. It is the year you joined plus the first five letters of your surname plus the first letter of your first name.

e.g. Tommy Brown who joined the school in September 2020 would be **20BrownT**

Passwords

You will be given a password at the start of the year, you can change this later but you must choose a password that you will remember and it has to be:

- At least 8 characters long
- a mixture of letters and numbers
- must have a capital letter

If you can't remember your password go and see the IT technicians in the corridor by IT1

Bromcom

The **Bromcom** app is used for accessing homelearning from home on mobile devices. You can download this app to your device from most App stores online.

You can also access Bromcom online by going to https://cloudmis.bromcom.com/

To log in, use your normal computer username and password.

Google Drive

Google Drive is a set of cloud-based tools for creating, sharing, and storing files. Just like Microsoft Office, Google Drive offers different file types for different functions.

Google Docs – A word processing tool, like Microsoft Word. It contains everything you need for creating and editing documents – you can format your text and paragraphs, insert links and images, and use tools like spellcheck and word count.

Google Sheets – Similar to Excel spreadsheets. Good for working with data, or for organizing just about any set of information. Includes formulas and the ability to create charts and graphs.

Google Slides – For creating presentations, this is Google's version of PowerPoint. You can access your presentation from anywhere with an internet connection.

Google Forms – Great for creating surveys and qizzes.

Email

You have your very own KCC email account. You can use this for emailing your teachers or other students.

Go to the college VLE and click on the email Icon

To log in use your normal computer username and password.

Using ICT

Year 7 Esafety Knowledge Organiser

The internet

Be careful when sharing personal information online. Only use websites you trust. Personal information includes:

- **full name**
- **date of birth**
- **address**

This information can be used to steal your identity or to find you in the real world. Identity theft is where someone pretends to be you. They might shop online spending your money, or take out loans in your name.

Status updates, comments and photos

Where possible, limit access to your social media profiles to family and friends. Do not post inappropriate status updates, comments or photos online. You might not want certain people, such as potential employers, to gain access to them.

Social networking sites also frequently change their privacy policies. This means that the way your information is used can change, a danger which often draws criticism.

False information and unsuitable content

The internet is a great source of information but some of it is incorrect, out of date or biased. Always check multiple sources, ie other websites or written material, to confirm what you've read is correct.

No one is in charge of the internet so anyone can post or publish anything to it. Some content may be unsuitable. Websites that you can trust include those from:

- the Government – if the address has 'gov.uk' in it, it's a UK Government website
- the National Health Service (NHS) – if the address has 'nhs.uk' in it, it's an NHS website
- the Police – the official website is www.police.uk
- the BBC – all of the BBC's websites have 'bbc.co.uk' in their address

Know who you are talking to.

Email, instant messaging, social networking sites and video chat are great for keeping in touch with family and friends, but make sure you know who you're talking to. People may not be who they claim to be. They might try to get personal information from you or ask you to do something that makes you uncomfortable. Others may try to wind you up or be unnecessarily aggressive. This is called trolling and flaming.

Ignore emails and friend requests from people you don't know and try to avoid meeting people you meet on the internet in real life. If you do decide to, take an adult with you, meet them in a crowded public space and always let a second adult know where you are.

Malware and security

Malware is a general term that describes lots of different programs that try to do something unwanted to your computer. Anti-virus software prevents malware from attacking your computer or mobile device.

- **A virus** harms your computer in some way, usually by deleting or altering files and stopping programs from running.
- **A trojan** starts by pretending to be a trusted file, but gives unauthorised access to your computer when you run it.
- **Worms** are difficult to get rid of. They copy themselves over networks to external storage devices
- **Spyware** collects information from your computer and sends it to someone.
- **Scareware** tricks you into thinking it's software that you need to buy.

File sharing, cyberbullying and smartphones

File sharing

File sharing is very popular but beware of fake files, malware and copyrighted material. Internet service providers (ISPs) may reduce your internet speed or disconnect you entirely if you repeatedly download files protected by copyright. They are able to track what you download using your IP address. Every computer has a unique IP address.

Cyberbullying

Using technology to bully someone is called cyberbullying. Cyberbullying can involve one or more of the following:

- sending offensive texts or emails
- posting lies or insults on social networking sites
- sharing embarrassing videos or photos online

Smartphones and mobile devices

These allow for photos, videos and your location to be shared instantly on the internet. Be careful what you get up to in public as anyone might have a smartphone pointed at you. Do not post photos or videos of other people online without their permission.

Location-aware applications

There are many websites and mobile applications that share your location. Some of the popular ones include:

Facebook, Foursquare or Twitter

It's wise not to share your location. Especially on websites that are accessible by anyone.

Using ICT

Year 7 - Spreadsheets Knowledge Organiser

Workbooks and worksheets

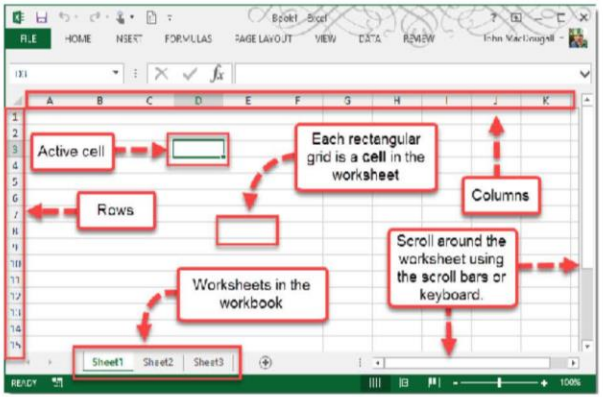
A spreadsheet file is made up of one workbook and multiple worksheets. Worksheets appear as tabs at the bottom of a workbook. They can be reordered and renamed.

Entering data into a cell

Data can be typed directly into a cell or into the formula bar. To the left of the formula bar you will find the name box. It shows the selected cell.

The three types of data you can enter into a cell are **data, labels** and **formulas.**

Key Word	Description
Data	values, usually numbers but can be letters or a combination of both.
Labels	headings and descriptions to make the spreadsheet easier to understand.
Formulas	calculations that update automatically if referenced data changes.



Columns, rows and cells

Every cell in a spreadsheet or worksheet has a unique cell reference, which consists of a letter and a number. The letter refers to the column and the number refers to the row.

To select a cell, left click on it. To enter data, double-click it. To select multiple cells, click and hold the left mouse button and drag it in the direction of the cells you want to select.

Formulas and functions

Formulas and functions are extremely useful features. They make automatic calculations that update when the data does.

Formulas

Formulas are usually simple calculations, eg adding two or more numbers together. They always start with an equals sign (=).

Symbols used in formulas

There are a number of symbols used in formulas or calculations. These are the most common ones:

'+' add '-' subtract '*' multiply '/' divide

Functions

Functions make more complex calculations. Simple and regularly used functions include:

SUM – adds values in selected cells
MIN – finds smallest value
MAX – finds largest value
AVERAGE – finds the average value
COUNT – counts how many of the selected cells have numbers in them

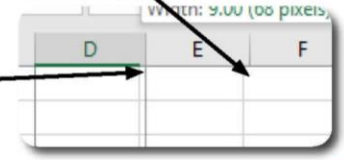
Like formulas, all functions start with an equals sign (=) followed by the function's name, eg SUM, MIN, MAX, etc.

Formatting

A well-formatted spreadsheet is easy to read. Spreadsheet programs have plenty of formatting features.

Adjusting column width and row height
To adjust a column's width or a row's height, move your mouse cursor between two columns or rows. Click and drag to resize.

To automatically resize a row to fit the data entered in a cell, double-click between the current row and the row after it.



IMPORTANT: All Formulas start with an = sign

Key Words

Workbook
Worksheet
Cell
Row
Column
Format
Cell Reference
Formula
Function
SUM
IF
* - / +
Conditional
Formatting
Charts & Graphs

Charts and graphs

Charts and graphs provide a visual representation of data, which can often be easier to understand.

To make a chart, use the chart wizard or the gallery, then follow the onscreen instructions.

There are several types of charts. Choose a chart based on the type of data to be displayed. The charts you can choose from include:

line graph – to show a change over time
pie chart – show the individual parts that make up a whole
bar chart – compare things that aren't directly related
scatter graph – look for a pattern or link between two sets of data

Using ICT

Year 7 - Word Processing Knowledge Organiser

Computing

Word processing

Word processors can be used to create any type of text-based document, from a letter to a novel. You can change a document's appearance using a number of formatting options such as:

- change the font and font size
- bold, italicise and underline words
- colour the text and the background
- highlight words of importance

You can also add tables, images, clip art and shapes to a document. **Use formatting sensibly and sparingly.**

If you hover the mouse over each icon on the ribbon it tells you what it is.

Keyboard Shortcuts

to do this...	Press
Open a document.	CTRL+O
Create a new document.	CTRL+N
Save the document.	CTRL+S
Close the document.	CTRL+W
Cut	CTRL+X
Copy	CTRL+C
Paste	CTRL+V
Select all document content.	CTRL+A
Apply bold formatting to text.	CTRL+B
Apply italic formatting to text.	CTRL+I
Undo the previous action.	CTRL+Z
Redo the previous action.	CTRL+Y
Print	CTRL+P

Fonts

Think about what you are creating and choose a suitable font. You have to be able to read it clearly so chose a font that is clear and easy to read and if you change the colour make sure there is good contrast with hte background.

Images and Text Wrapping

When you insert an image, you may notice that it's difficult to move it exactly where you want. This is because by default the image is in line with the text.

If you want to move the image freely, or if you want the text to wrap around the image in a more natural way you'll usually need to choose a different text wrapping setting.

You can access text-wrapping options by selecting the image and clicking the Layout Options button that appears.

Top Tips

Write Text Anywhere
You can use Word as a whiteboard of sorts and easily place text anywhere on the page. Just click twice on any place on the page and Word will allow you to start typing there.
Highlight an Area Of Text Quickly

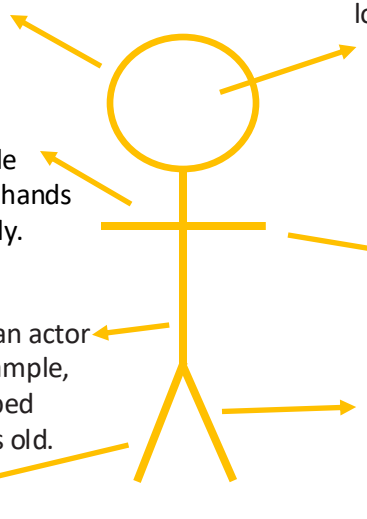
Highlight an Area Of Text Quickly
Instead of clicking and dragging to highlight an area of text, you can instead click once to place the text cursor at the start of the area you'd like to highlight, hold shift, then click at the end of the area you'd like to highlight.

You already know that double-clicking will select a single word, however, triple-clicking will select an entire paragraph.

Quickly Lookup a Word
If you are editing a Word document but need context, you can use the Smart Lookup tool. Simply highlight a word, right click and click Smart Lookup.

Year 7 – Cycle 1
Basic Drama Skills

Physical Skills – 'Acting Stick Man'



Facial Expressions
Facial expressions are the way the face moves to convey an emotional state.

Gestures
Gesture is the way people communicate with their hands or other parts of the body.

Posture
Posture is way in which an actor holds their body. For example, Mary stood with a slumped posture to show she was old.

Gait
Gait is a person's manner of walking. For example, John walked with a wide gait.

Eye Contact
Eye contact is when two actors look directly into one another's eyes. It can be used to reveal the status and relationship between characters.

Body Language
Body language is using your body to convey the characters feelings or personality.

Proxemics
Proxemics are the space used by actors on stage between other actors to show relationship and status.

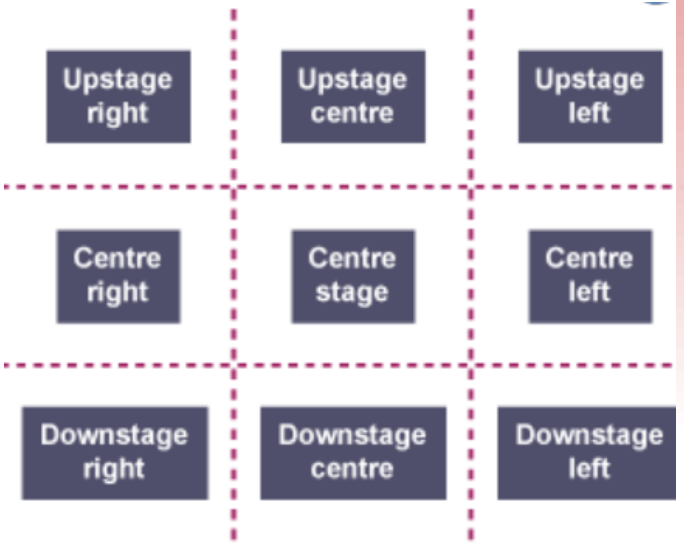
Vocal Skills

Tone	Tone suggests your mood and your intention towards the listener, e.g. happy or sad.
Pace	the speed at which someone speaks, e.g. the speed of response in an argument.
Pause	a dramatic pause used to create tension or a certain mood during a performance
Volume	How loud or quiet an actor delivers their lines
Accent	The choice of accent (usually regional or geographic) to convince the audience of a setting or characters background
Emphasis	the pressure on individual words that makes them stand out. Emphasis or stress for a particular effect is significant and can change the meaning of a sentence as well as the feeling behind it.
Projection	is the strength of speaking or singing whereby the voice is used powerfully and clearly to ensure an audience can hear all dialogue.

Dramatic Conventions

Improvisation	When you act out/create a scene on the spot or with limited planning, without a script
Still Image	Where every person on the stage freezes – as if you could take a photograph.
Thought Tracking	When you speak your characters thoughts/feelings out loud, usually during a still image.
Direct Address	When you speak directly to the audience 'in role'.
Soundscape	is when performers each choose a sound effect or line of dialogue that they repeat on stage so that the noises overlap and build up.

Areas of the Stage

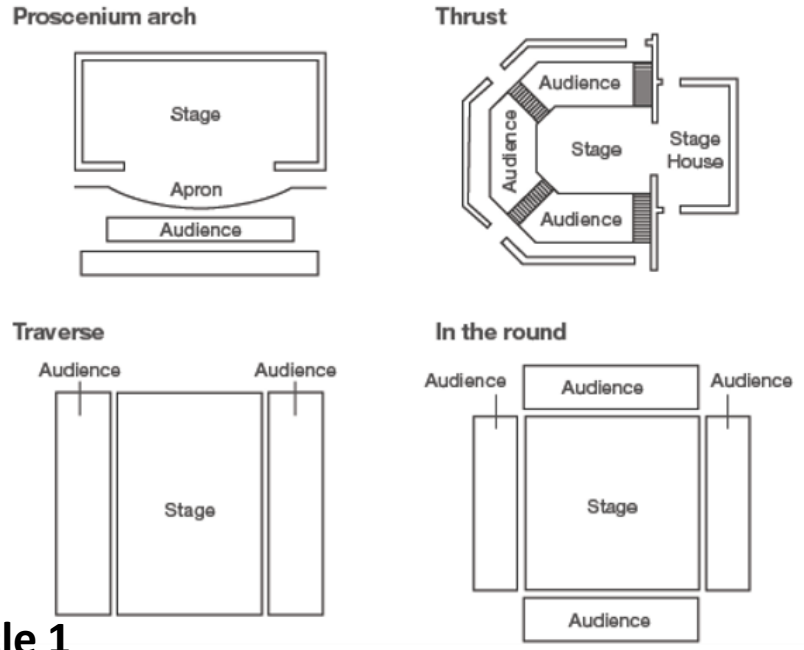


Year 7 – Cycle 1
Oliver Twist

Script Vocabulary

Character	The character is the person who is delivering the line of dialogue.
Stage Direction	Usually in brackets or italics, stage directions tell the actors where to move or how to say a certain line.
Dialogue	This is the lines that the actors say to one another when they are in character.
Cue	An actor's cue to speak is usually someone else's line or a stage direction, it is how they know when to say their line.
Beat	A beat is a pause that is usually inserted into the script for Dramatic affect. It means there is a moment of silence.

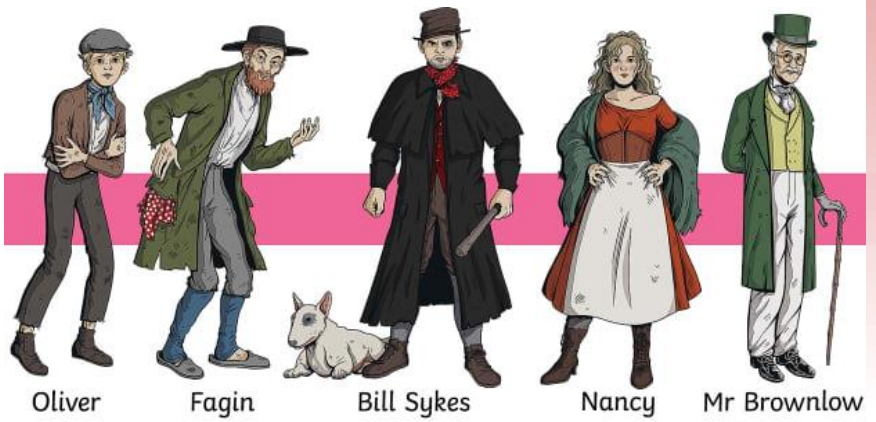
Types of the Stage

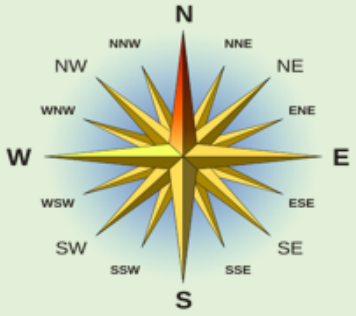
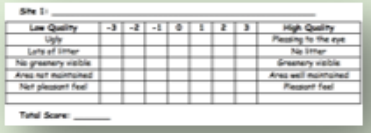


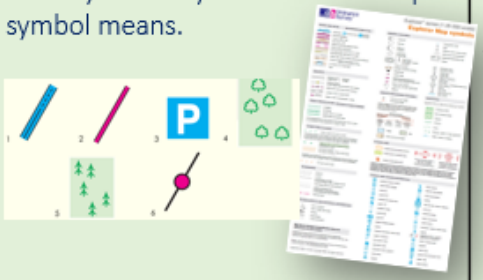
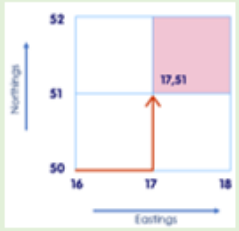
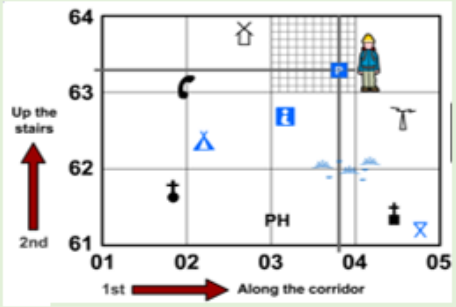
Set Design

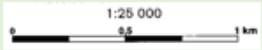
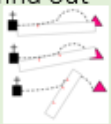
Drapery	Drapery is any set that can be used to frame the stage and often hangs down from bars.
Levels	A set designer can vary levels through the use of *rostra*, ramps and steps. Ordinary blocks, staging units, scaffolding and planks can be used to create levels and can be joined together to create steps or other shapes. Levels are often used in productions to portray a character's status, power or situation.
Projection	Projections are becoming more common within set design and can be used to add detail and texture on stage. In some venues scenery can be projected, which can be very effective but can have limitations.
Flats	A flat is a piece of scenery used to represent a wall or to conceal a backstage area. A series of flats can be joined together to make a run, where each flat is supported by a brace with a heavy weight attached.

Characters in Oliver Twist



Lesson 1 What is Geography?	Lesson 2 Classifying Geography	Lesson 3 Locating places	Lesson 4 Our place
Geography Is the study of Earth's people, places and environments. Places affect people People affect places **Place** A space or location with meaning. Different cultures and people have different perspectives on place. **Perspective** The way we see things, an attitude to something Perspective will be affected by… • Age • Gender • How long someone has lived in a place • What they use the place for	**Physical Geography** All geography that occurs naturally for instance rivers, coasts and earthquakes **Human Geography** All geography that involves human activity for instance industry and population. **Environmental Geography** All geography that involves humans working with, and changing, the natural world. Continents and oceans are the largest physical places Countries are the largest human places 	We can locate places using a compass rose.  When describing the location of places, we start global and describe the hemisphere then Continent Country Region of the country Local area   	Fieldwork is an important part of Geography. It involves investigating a geographical issue. In involves collecting data, analysing results and drawing conclusions Environment: The air, water and land in or on which people, animals and plants live.  An Environmental Quality survey allows us to collect data about the local environment.  A Radar diagram allows us to present our data.
1.A "place" is a space with ….. 2.Places can be different s_____ 3.Geography is the study of the Earths places and p_____ 4.Places have similarities and d_____ 5.Our place is our….	1. What type of Geography is the study of earthquakes 2. What type of geography it's the study of people 3. What are the largest 2 oceans 4. Which continent is the UK located on? 5. Which continent is the largest?	1. What hemisphere is the UK in? What continent is the UK in? 2. What region is your school in? 3. What county is your school in? 4. What is opposite North on a compass? 5. What is opposite South East on a compass?	1. What is fieldwork? 2. What data did you collect? 3. What were your results ? 4. What were your conclusions?

Lesson 5 OS Map Symbols	Lesson 6 Four Figure Grid References	Lesson 7 Six Figure Grid Reference	Lesson 8 Relief
Rather than writing or drawing features, each has a symbol All OS maps have a key. The key will tell you what each map symbol means.  Our place has no motorways, it has 2 main A roads which are the A381, A379. Most roads are small B roads and roads less than 4 m wide. There are many coastal features such as cliffs and beaches. There are other tourist facilities such as camping, information centre, toilets, golf and parking.	**4-figure grid reference.** The first two numbers are called the **easting**, which is the number you would look for at the bottom of the map. The second two numbers are called the **northing** and represent the numbers you would look for on the side of the map. Where these two sets of numbers intersect is the bottom, left corner of the square where you would find what you are looking for.  Which ones do you read first? **Along the corridor and up the stairs.**	A **6-figure grid reference** These contains 6 numbers. Imagine that each grid is divided into 100 tiny squares. The distance between one grid line and the next is divided into tenths.  	**Relief** The height and shape of the land. This can be shown in three ways:  Contour lines are used on an OS map. They are **10m apart** on a 1:25 000 map. You can use them to calculate height and **steepness** If the contour lines are close together it is **steep** If the contour lines are far apart it **gentle** If there are no contour lines and the land is white, then it is **flat.**
1. Where do you find the meaning of map symbols 2. Write down the meaning of the 6 map symbols above 3. What are the main characteristics of your place?	1. What is the rule for reading grid references? 2. Which corner do we read grid references from? 3. What is the correct term for grid references? E_____ and N_____	1. How do you divide the grid square to get the 6th grid references 2. Are the grid references always at the bottom and on the left? 3. What is the 6 fig. grid reference for the parking, campsite, information	1. State the 3 ways of showing height/ relief on a map 2. If contour lines are close together it means the land is… 3. If contour lines are far apart it means the land is… 4. No contour lines means … 5. What is the relief of your place?

Lesson 10 Peoples perceptions	Lesson 11 Distance and scale	Lesson 12 Longitude and latitude	Lesson 13 How are places different
Sense of place: the meaning we give to a place. Factors that affect our sense of place: • Age • Gender • How long you have lived in a place • What you use the place for **Kingsbridge** is a market town and tourist hub in the South Hams district of Devon, England, with a population of 6,116. **The town formed around a bridge which was built in or before the 10th century** In 1798 it was a **woollen manufactory**, which produced of **cloth**. During the 19th century the town had an active coastal **shipping trade, shipbuilding, a tannery**, other industries and a large monthly **cattle market**. The chief exports were **cider, corn, malt, and slate** Being situated within the South Devon (AONB) and with its proximity to the south Devon coast and Salcombe, the town has developed **into a popular tourist destination**	**Scale** There is a standard ratio format for map scales e.g. "1: 25,000". The first number is the unit on the map and the second number is the distance in real life of the same unit. So, 1: 25,000 means that 1cm on the map corresponds to 25,000 cm on the ground.  **Straight line distances** Get a ruler or piece of paper and simply measure the distance between the two points Then compare it to the scale at the bottom of the map page to find out how far it is in real life  **Curved line distances** Move the paper or string and **mark it all around the curves** until you finally reach the point you wanted to measure to. Basically, you are **turning the curvy line** into **lots of little straight lines**	Lines of latitude (also known as parallels) circle the Earth from east to west. These invisible lines are all the same distance apart. One line to the next is known as 1 degree.  These are the lines which run north and south and are known as lines of longitude or meridians of longitude. Lines of longitude are not **equal distances**  The **Equator** is a line of latitude that runs around the middle of the Earth and is halfway between the North and South Poles. Countries near to the Equator are very hot The **Tropic of Cancer** lies at 23.5 degrees north of the Equator The **Tropic of Capricorn** lies at 23.5 degrees south of the Equator. The **Arctic Circle** lies at **66.5 degrees north** whilst the **Antarctic Circle** likes at **66.5 degrees south**.	**HIC: High Income Country** These countries have high incomes from banking for example. This means they can afford good health care, education. Stable governments. **NEE Newly Emerging Economy** This means incomes, employment and education have improved **LIC Low Income Country** These countries tend have less money. They may export raw materials. They have lower education rate, less access to health care. **Measuring development** *Life expectancy:* The average age people are expected to live *Adult Illiteracy:* The % of adults that cannot read and write simple sentences *Exports:* The value of all the goods sold to other countries *Energy consumption per capita:* The amount of energy consumed per person *GNI per capita:* The total earning of the country divided by its population Food intake (calories): The average amount of calories that a person eats
1. Why do people view places differently 2. Give two factors that may affect how people view places 3. What is the function of your place?	1. If you are measuring distance, what must you use? 2. To measure a curved line distance, you have to use a piece of paper and p_____ along.	1. The Equator is at _____ line of latitude 2. The Tropics of Cancer and Capricorn are at_____ 3. The Arctic Circles are at _____	1. What does HIC stand for? 2. What does LIC stand for? 3. What does NEE stand for? 4. What are the characteristics of each?

Lesson 14 What is life like in other places	Lesson 15 How is Kenya different to our place	Lesson 16 Barriers to development	Power Words
Development gap: Refers to the difference in levels of development between the world's richest and poorest countries. This causes inequality. **Inequality** When wealth (and other factors) are not divided equally between people There are 4 income levels **Level 1** Made up of people who earn less than $2 a day and live in extreme poverty, about 680 million (9%) live on this. **Level 2** People earn between $2 and $8 a day. Almost half the world's population lives at this income level. **Level 3** Made up of people who live on between $8 – $32 per day. **Level 4** The richest billion people on earth live at Level 4, where their income is more than $32 a day 	**Location** Kenya is located in East Africa on the Equator. It is in the eastern hemisphere. **Physical Features** The Great Rift Valley is in the west of the country. It is formed by the crust being pulled apart by tectonic forces. Here there are extinct and active volcanoes such as this one on Lake Turkana. These lakes were caused when rains flooded the valley **Human activity** The highlands receive high levels of rainfall and good for farming tea and coffee. Although these sell for low prices. The north of the country is very hot and dry so people rear animals (pastoralists) so they can move them to the best pastures (grassland). It suffers from drought. To the south and west, the land is semi arid (dry).	• 70% of rural population work in farming • Families can't afford to send children to secondary school • 46% live under the poverty line • High unemployment • Severe droughts • Healthcare isn't free **2019 drought in Kenya** **Causes:** Driest 'long rains' season in 38 years Increasing temperatures across East Africa have meant decreasing amounts of rainfall Cyclone Idai redirected moisture away from east Africa when it hit Mozambique in March 2019 **Impacts:** **One barrier to development in Kenya *is*...** Drought such as in **2019** **This is a barrier because crops fail**, so people have **nothing to sell** and have **no money** **This means that** they can't afford food, water, **education**, **healthcare** **So, they** and their children can't get higher paid jobs and remain poor	Place Physical Geography Human Geography Development Inequality HIC LIC NEE Environment Perception
1. How many income levels are there? 2. In which income level do most people live? 3. Which income level do people in HIC live? 4. How many people live in Level 1?	1. Where is it located? 2. What is the highest peak? 3. What is the average temperature? 4. What jobs do most people do?	1. What are the 2 categories of barriers to development? 2. How would you classify levels of education? 3. How would you classify climate? 4. What % of Kenyans work as subsistence famers	**Write down the definition of these words in the space above**

Year 7 History Cycle 1: Invaders – Why did the Normans win the Battle of Hastings? The conqueror and the conquered – What did the English think when William took control?

1 This enquiry will examine the famous 1066 Battle of Hastings and the events that led up to it. We will also evaluate the impact of the Norman Conquest on England after 1066.

Timeline

2	5th January 1066	Edward the Confessor, the King of Anglo-Saxon England, dies.
3	25th September 1066	Battle of Stamford Bridge
4	14th October 1066	Battle of Hastings
5	25th December 1066	William is crowned King
6	1068	Motte and bailey castles built in Exeter and Totnes
7	1086	Domesday Book completed

8	Why did William win the Battle of Hastings?	• Luck - The wind changed and allowed William's troops to cross the channel at a time when Godwinson's troops were away in the north. Godwinson was killed during the battle. • Tactics / skill - The Normans' clever trick of pretending to retreat caused the Saxons to leave their strong position on the hill. • Weapons / forces – Normans had cavalry - knights on horseback and archers. • Leadership - William was skilful, ambitious and determined.
9	What impact did the Normans have on England?	• Power – The king ruled through the feudal system. Lords promised to be loyal and provide an army in return for land. Land was taken from the Saxons and given to Norman barons. • People – Many Saxons rebelled against **Norman** rule, particularly in the years 1066-71. However, they were unsuccessful. **Normans** built castles as one way of controlling people.

Key People

10	Edward the Confessor	Saxon King 1042-66. Died with no clear heir.
11	Harold Godwinson	Chosen by the witan to be King after Edward the Confessor died.
12	Harald Hardrada	King of Norway. His grandfather had been King of England. Attempted to conquer England in September 1066. Defeated by Harold Godwinson at the Battle of Stamford Bridge.
13	William Duke of Normandy	Duke of Normandy. Successfully invaded England in 1066, defeating Harold **Godwinson** at the **Battle of Hastings**.

Key Words

14	historical source	A piece of information created in the past by people who lived through it that helps to inform our understanding of that part of history. E.g. a painting or diary
15	historical interpretation	Where historians say what they believe the past means. They attempt to explain why and how things happened as they did and why particular elements in the past are important.
16	analyse	Examine evidence (e.g. an historical source) and explain it to help make sense of the past.
17	historically significant	An event, person, place or idea that is important, not just to the people of the past but also to people today. It leaves a lasting mark on our history in some way.
18	Anglo-Saxon	People who ruled and lived in England from around 500 AD.
19	Norman	The people from Normandy in Northern France especially those who invaded England in 1066 and became its rulers.
20	Viking	A person belonging to a race of Scandinavian people (modern day Denmark, Norway and Sweden), who traveled by sea and attacked parts of northern and southern Europe between the 8th - 11th centuries, often staying to live in places they travelled to.
21	succession	Things that follow one another, as well as the order in which they do so. E.g. the order in which people become king or queen is known as the order of **succession**.
22	heir	Someone who is named in a will or is legally entitled to inherit something. E.g. Prince Charles is the **heir** to the throne because he will be king when Queen Elizabeth II dies.
23	conquest	To overcome and take control of a place through military force.
24	fyrd	Working men who were called up to fight for **Anglo-Saxon** kings in times of danger.
25	cavalry	Soldiers who fought on horseback.
26	rebellion	Resisting authority and the people in control – can be violent.
27	the pope	Leader of the Roman Catholic Church. Lives in the Vatican City in Rome, Italy.
28	feudal system	A way of controlling England by giving land to people in return for services.
29	Domesday Book	A book recording the names of all the villages in England and who owned the land.
30	motte & bailey	The first type of castle the **Normans** built on Saxon land. It had a man made hill (motte) and area for living with a fence around it (bailey).

Year 7 History Cycle 1: What kind of things mattered to medieval people?

1 In this unit we are going to be looking at the medieval period. The medieval period is also referred to as the **Middle Ages.** It is usually considered to go from about **400 AD – 1450 AD.**

Medieval Life

2	**religion**	Almost everybody believed in the God and that Heaven and Hell were real places. The main **Christian** Church was the Roman **Catholic Church**. The **pope** was the leader of the **Catholic Church.**
3	**medicine**	Doctors did not understand what caused people to be sick and often believed it was a punishment sent by God and evil spirits. This meant their cures were often not very effective. E.g. **trepanning** and praying.
4	**law and order**	There was no police force in medieval England. A lack of scientific understanding made it hard to catch criminals. Trials were used to test guilt or innocence. They believed God would punish the guilty.
5	**fun & games**	Ordinary people did not have holidays. Instead, they had 'holy days' off - our word holiday comes from this. After attending church peasants were free to play games: Football, shin hacking, archery.
6	**medieval society**	Medieval society was still based on the feudal system that William the Conqueror had introduced. The king sat at the top of society. The Barons, wealthy and important individuals, came next. Then it was the knights followed by the largest group in society, the peasants or villeins.
7	**women**	More is known about upper and middleclass women from the **Middle Ages** as we have sources containing information about them. On the other hand, it is very difficult to find information on working class women as they produced very little information about themselves, and others were more interested in documenting the lives of the rich and powerful. We do know they lived hard lives.
8	**Crusades**	The **Crusades** were a series of religious wars fought in the **Middle Ages** between the **Christian**s and **Muslim**. The First Crusade like many was fought over control of the Holy lands.
9	**The Black Death**	The Black Death or Bubonic **Plague** arrived in Europe in 1347. The first recorded victims in England were in 1348. People at the time had no idea what was causing the **plague**. Many believed it was sent by God as a punishment for their sins or thought it was a result of movement of the planets. Others looked for more rational causes like bad smells (**miasma**).

Key People

10	**Pope Urban II**	Called for the first Crusade in 1096. He promised people that all their sins would be forgiven if they went on crusade to the **Holy Lands** and the city of **Jerusalem**.
11	**Edward I**	King of England from 1272 to 1307. He was responsible for introducing the foundations of the modern legal system in England.
12	**Galen**	A Greek physician / surgeon in the Roman Empire. His understanding of the body was based on the dissection of animals. His ideas were used by doctors in the **Middle Ages**

Key Words

13	**purgatory**	A place the souls of dead people went to before going to Heaven. A kind of waiting room for souls to be punished for their sins.
14	**Christian**	A person who believes in the teachings of Jesus Christ.
15	**Catholic Church**	The **Catholic Church**, also known as the Roman **Catholic Church**, is the largest **Christian** church. It was the main **Christian** church of the **Middle Ages**.
16	**doom painting**	Is the term used to describe paintings that can be found the walls of churches and other religious building that show judgment day and souls either going to Heaven or Hell.
17	the **pope**	The head of the **Catholic Church**
18	**disease**	A **disease** is something that affects the normal functioning of an organism. In humans this can make them very sick.
19	**miasma**	**Miasma** is an unpleasant or unhealthy smell or vapor. In the **Middle Ages** people believed this could make you sick.
20	**Crusades**	A series of religious wars made by Europeans to recover the **Holy Lands** from the **Muslim**s in the 11th, 12th, and 13th centuries.
21	**sanctuary**	A safe place. In the **Middle Ages** this could be a religious building.
22	**trepanning**	**Trepanning** was used by ancient doctors as a cure to illnesses that affected the head, e.g. migraines. It involved making a hole in a person's skull to release the evil spirits they believed were causing the problem.
23	**Jerusalem**	Was the main city of the **Holy Lands**. It is an important religious centre for **Christian**s, Jews and **Muslim**s and was the Crusaders' capital city.
24	**Holy Lands**	The lands that are mentioned in the Bible as being the places where Jesus lived his life and carried out his many deeds.
25	**bleeding**	**Bleeding** or bloodletting was the process of removing blood from a patient. This could be done by cutting or using leeches to suck blood.
26	**Muslim**	a follower of the religion of Islam
27	**clergy**	A person who is ordained into the church. E.g. priest, bishop, **pope**
28	**midwives**	Women in the **Middle Ages** who helped with childbirth
29	**plague**	a contagious bacterial **disease** characterized by fever and delirium, typically with the formation of **buboes**.
30	**buboes**	a swollen inflamed lymph node (swelling) in the armpit or groin

Y7Fr LC1 Sentence Builder 1 – Greetings – Comment tu t'appelles? Ça va?

Salutation	Verb	Name	Connective	verb	Adjective	Salutation
Bonjour (good day) Salut (hi) Bonsoir (good evening) Enchanté(e) (nice **to** meet you)	**je suis** **(I am)**	.....	**et** **(and)**	**je suis** **(I am)**	bien (well) super (great) malade (ill) pas mal (not bad) pas terrible (not great) fatigué(e) (tired) content(e) (happy) triste (sad)	au revoir (good bye) à bientôt (see you soon) à plus (see you later) salut (bye)

Y7Fr LC1 Sentence Builder 2 Quel âge as-tu ?

Verb	Number	Noun	Connective	Phrase	Number	Month
	un (1) deux (2) trois (3) quatre (4) cinq (5) six (6) sept (7) huit (8) neuf (9) dix (10) onze (11) douze (12) treize (13)				**un** (1) deux (2) trois (3) quatre (4) cinq (5) six (6) sept (7) huit (8) neuf (9) dix (10) onze (11) douze (12) treize (13)	janvier (January) février (February) mars (March) avril (April) mai (May)
J'ai **(I have)**	quatorze (14) quinze (15) seize (16) dix-sept (17) dix-huit (18) dix-neuf (19) vingt (20) vingt-et-**un** (21) vingt-deux (22) vingt-trois (23) vingt-quatre (24) vingt-cinq (25) vingt-six (26) vingt-sept (27) vingt-huit (28) vingt-neuf (29) trente (30) trente-et-**un** (31)	ans (years)	**et** **(and)**	**mon** anniversaire **c'est le** (**my** birthday **is the**) 	quatorze (14) quinze (15) seize (16) dix-sept (17) dix-huit (18) dix-neuf (19) vingt (20) vingt-et-**un** (21) vingt-deux (22) vingt-trois (23) vingt-quatre (24) vingt-cinq (25) vingt-six (26) vingt-sept (27) vingt-huit (28) vingt-neuf (29) trente (30) trente-et-**un** (31)	juin (June) juillet (July) août (August) septembre (September) octobre (October) novembre (November) décembre (December)

Y7Fr LC1 Sentence builder 3 – Appearance: Tu es comment ?

<table>
<tr><th colspan="2">Verb</th><th>Adjective</th><th>Connective</th><th>Verb</th><th>Noun</th><th>Adjective</th></tr>
<tr><td colspan="2" rowspan="2">Je suis
(I am)</td><td rowspan="4"> 

grand/grande
(tall)

petit/petite
(short)

gros/grosse
(fat)

mince
(thin)

beau/belle
(beautiful)</td><td rowspan="4">et aussi
(and also)</td><td rowspan="2">j’ai
(I have)</td><td>les cheveux
(the hair)</td><td>noirs (black)
blonds (blond)
bruns (brown)
roux (red)
longs (long)
courts (short)</td></tr>
<tr><td>les yeux
(the eyes)</td><td>bleus (blue)
gris (grey)
marron (brown)
verts (green)</td></tr>
<tr><td>mon père (my dad)
mon beau-père (my step dad)
mon frère (my brother)
mon demi-frère (my half/step brother)
ma mère (my mum)
ma belle-mère(my step mum)
ma sœur (my sister)
ma demi-sœur (my step sister)
mon chat (my cat)
mon chien (my dog)</td><td>est</td><td rowspan="2">il/elle a
(he/she has)</td><td>les cheveux
(the hair)</td><td>noirs (black)
blonds (blond)
bruns (brown)
roux (red)
longs (long)
courts (short)</td></tr>
<tr><td>les yeux
(the eyes)</td><td>bleus (blue)
gris (grey)
marron (brown)
verts (green)</td></tr>
<tr><td>mes parents
(my parents)

mes grands-parents
(my grandparents)</td><td>sont</td><td rowspan="2">ils/elles ont
(They have)</td><td>les cheveux
(the hair)</td><td>noirs (black)
blonds (blond)
bruns (brown)
roux (red)
longs (long)
courts (short)
raides (straight)</td></tr>
<tr><td colspan="2"></td><td>les yeux
(the eyes)</td><td>bleus (blue)
gris (grey)
marron (brown)
verts (green)</td></tr>
</table>

Y7Fr LC1 Sentence Builder 4 – Who I live with: Tu habites avec qui?

Phrase	Determiner	Noun	Verb	Adjective	connective	Determiner	Noun	Verb	Adjective
Je penser **que** (**I** think **that**)	**mon** (**my**)	père dad beau-père (step dad/father in law) frère demi/beau-frère (half/step brother) oncle (uncle) chien (dog) chat (cat)	**est** (**is**)	sympa (nice) gentil (kind) amusant (funny) timide (shy) sérieux (serious) idiot (silly)	**mais** **et** (**and**) **aussi** (**also**)	**mon** (**my**)	père dad beau-père (step dad/father in law) frère demi/beau-frère (half/step brother) oncle (uncle) cousin (cousin) chien (dog) chat (cat)	**est** (**is**)	sympa (nice) gentil (kind) amusant (funny) timide (shy) sérieux (serious) idiot (silly)
	ma (**my**)	mère (mum) belle-mère (step mum/mother in law) sœur (sister) demie/belle-sœur (half/step sister) tante (aunt)	**est** (**is**)	sympa (nice) gentille (kind) amusante (funny) timide (shy) sérieuse (serious) idiote (silly)		**ma** (**my**)	mère (mum) belle-mère (step mum/mother in law) sœur (sister) demie/belle-sœur (half/step sister) tante (aunt) cousine (cousin)	**est** (**is**)	sympa (nice) gentille (kind) amusante (funny) timide (shy) sérieuse (serious) idiote (silly)
	mes(**my**)	parents grands-parents	**sont** (**are**)	as above + **s**		**mes**(**my**)	parents(parents) grands-parents	**sont** (**are**)	as above + **s**

Y7Fr LC1 Sentence Builder 5 – Hobbies & opinions: Qu'est-ce que tu aimes faire ? Pourquoi ?

Verb	Verb	detail	Connective	Phrase	Verb	Adjective
J'adore **(I love)**	surfer (**to** surf)	**sur** internet (**on the** Internet)	**parce que** **(because)**	**je** pense **que** (**I** think **that**)	**c'est** **(it's)**	cool (cool)
J'aime bien **(I really like)**	tchatter (**to** chat)	**en** ligne (**on**line)				passionnant (exciting)
J'aime **(I like)**	écouter (**to** listen)	**de la** musique (**to** music)				intéressant (interesting)
Je n'aime pas **(I don't like)**	jouer (**to** play)	**aux** sports (**at**) sports)				amusant (fun)
Je n'aime pas du tout **(I don't like at all)**	envoyer (**to** send)	des textos (**some** text messages)				stupide (stupid)
Je déteste **(I hate)**	regarder (**to** watch)	**la** télévision (**the** TV)				barbant (boring)
	chanter (**to** sing)	des chansons (**some** songs)				
	étudier (**to** study)	**pour le** collège (**for** school)				
	parler (**to** speak)	**avec** mes amis (**with my** friends)				

Year 7 Learning Cycle 1 Sentence Builder 1:

¿Cómo estás? – How are you?

Salutation	Verb	Adjective	Connective	Adjective	Salutation
Buenos días = **Good day** **Buenas** tardes = **Good** afternoon **Buenas** noches = **Good** night Mucho gusto = Pleased to meet you	**estoy = I am (feeling)**	fenomenal = amazing **bien = well** regular = ok mal = bad fatal =terrible triste= sad alegre = happy cansad@ = tired motivad@ = motivated hart@ = fed up	**y = and** **pero = but**	fenomenal = amazing **bien = well** regular = ok mal = bad fatal =terrible triste= sad alegre = happy cansad@ = tired motivad@ = motivated hart@ = fed up	Adiós = goodbye **Hasta** luego = **until** later **Hasta** pronto = **until** soon

Year 7 Learning Cycle 1 Sentence Builder 2: ¿Cuántos años tienes? – How many years do you have?

Verb	Number	Noun	Connective	Phrase	Number		Month
Tengo = I have	uno = 1 dos = 2 tres = 3 cuatro = 4 cinco = 5 seis = 6 siete = 7 ocho = 8 nueve = 9 diez = 10 once = 11 doce = 12 trece = 13 catorce = 14 quince = 15 dieciséis = 16 diecisiete = 17 dieciocho = 18 diecinueve = 19 veinte = 20 veintiuno =21 veintidós = 22 veintitrés = 23 veinticuatro = 24 veinticinco = 25 veintiséis = 26 veintisiete = 27 veintiocho = 28 veintinueve = 29 treinta = 30 treinta y uno = 31	años = years	**y = and**	**mi** cumpleaños **es el** = **my** birthday **is the** 	uno = 1 dos = 2 tres = 3 cuatro = 4 cinco = 5 seis = 6 siete = 7 ocho = 8 nueve = 9 diez = 10 once = 11 doce = 12 trece = 13 catorce = 14 quince = 15 dieciséis = 16 diecisiete = 17 dieciocho = 18 diecinueve = 19 veinte = 20 veintiuno =21 veintidós = 22 veintitrés = 23 veinticuatro = 24 veinticinco = 25 veintiséis = 26 veintisiete = 27 veintiocho = 28 veintinueve = 29 treinta = 30 treinta y uno = 31	**de = of**	enero = January febrero = February marzo = March abril = April mayo = May junio = June julio = July agosto = August septiembre = September octubre = October noviembre = November diciembre = December

Year 7 Learning Cycle 1 Sentence Builder 3:

¿Cómo es tu mejor amigo? – What is your best friend like?

Adjective	Noun	Verb	Modifier	Adjective
mi = my	**amigo = friend (male)** **amiga = friend (female)** **mejor amigo = best friend (male)** **mejor amiga = best friend (female)** novio = boyfriend novia = girlfriend media naranja = half orange	**es = (he/she/it) is**	**(muy) = very** (bastante) = quite 	sincer@ = sincere tímid@ = shy tranquil@ = calm divertid@ = fun gracios@ = funny seri@ = serious simpátic@ = kind tont@ = silly list@ = smart loc@ = crazy rar@ = weird
mis = my	**amigos = friends (all male or mixed)** amigas = friends (all female)	**son = (they) are**		sincer@s -sincere tímid@s = shy tranquil@s = calm divertid@s = fun gracios@s = funny seri@s = serious simpátic@s = kind tont@s = silly list@s = smart loc@s = crazy rar@s = weird

Year 7 Learning Cycle 1 Sentence builder 4:

¿Cómo es tu familia? – What is your family like?

<table>
<tr><th>Verb</th><th>Connective</th><th>Possessive</th><th colspan="2">Verb</th><th>Adjective</th><th>Connective</th></tr>
<tr><td rowspan="3">Creo=
I
believe
Pienso =
I think
  </td><td rowspan="3">que = that</td><td colspan="2">soy = I am</td><td>alt@ = tall
baj@ = short
gord@ = fat
delgad@ = thin
guap@ = good looking
fe@ = ugly</td><td rowspan="3">y = and
pero = but
también = also</td></tr>
<tr><td rowspan="2">mi =my</td><td>padre = dad
madre = mum
padrastro = stepdad
madrastra = stepmother
hermano = brother
hermana = sister
hermanastro = stepbrother
hermanastra = stepsister
abuelo = grandpa
abuela = grandma
perro = dog
gato = cat
conejo = rabbit
cobayo = guinea pig
serpiente = snake
ratón = mouse</td><td>es =
(he/she/it) is</td><td>alt@ = tall
baj@ = short
gord@ = fat
delgad@ = thin
guap@ = good looking
fe@ = ugly</td></tr>
<tr><td>padres = parents
hermanos = siblings
abuelos = grandparents
mascotas = pets</td><td>son = (they)
are</td><td>alt@s = tall
baj@s = short
gord@s = fat
delgad@s = thin
guap@s = good looking
fe@s = ugly</td></tr>
</table>

Year 7 Learning Cycle 1 Sentence builder 5: ¿De qué color son tus ojos y tu pelo? – Of what colour are your eyes and hair?

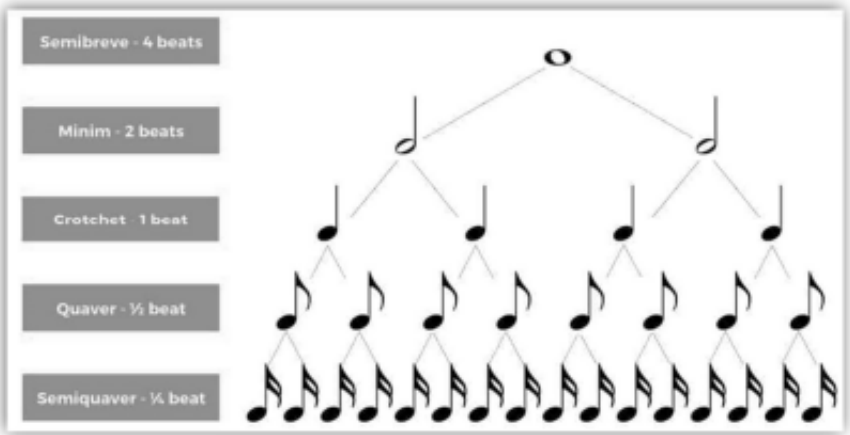
Subject	Verb	Noun	Adjective
(yo) = I	**tengo = I have**	**el** pelo = **the** hair	negro = black rubio = blond castaño = brown pelirrojo = red largo = long corto = short
		los ojos = **the** eyes	azules = blue grises = grey marrones = brown verdes = green
(él) = he **(ella) = she** **mi** madre = **my** mum **mi** padre = **my** dad **mi** hermano = **my** brother **mi** hermana = **my** sister **mi mejor** amigo = **my best** friend **mi** familia = **my** family	**tiene = he/she/it has**	**el** pelo = **the** hair 	negro = black rubio = blond castaño = brown pelirrojo = red largo = long corto = short
		los ojos = **the** eyes 	azules = blue grises = grey marrones = brown verdes = green
mis hermanos = **my** siblings **mis** padres = **my** parents **mis** amigos = **my** friends	**tienen = they have**	**el** pelo = **the** hair	negro = black rubio = blond castaño = brown pelirrojo = red largo = long corto = short
		los ojos = **the** eyes	azules = blue grises = grey marrones = brown verdes = green

RHYTHM, METRE AND TEMPO

VOCABULARY

Rhythm	*A pattern of long notes, short notes and rests.*	**Pulse**	*The underlying beat or the heartbeat of the music. What people dance or tap their foot to.*
Polyrhythm	*Many different rhythms layered over each other.*	**Tempo**	*The speed of the pulse.*
Metre	*The number of beats in each bar. Also called the **time signature**.*	**Ostinato**	*A short, repeating musical pattern.*

READING MUSIC

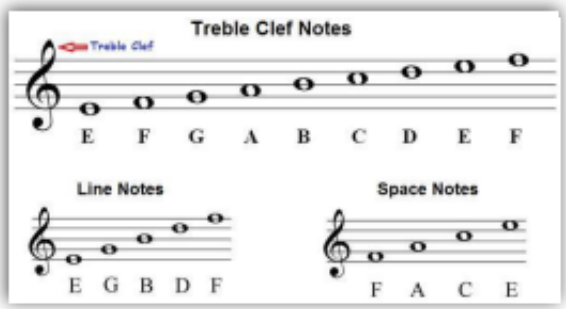


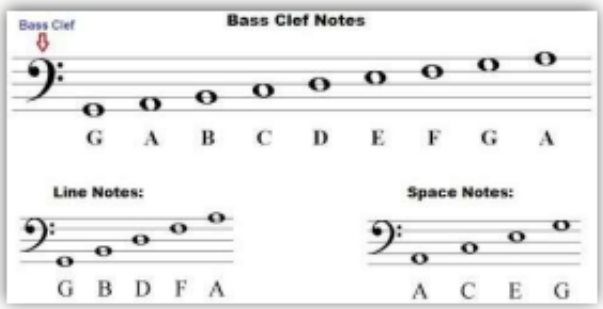
MELODY, CHORDS AND BASS

VOCABULARY

Melody	*The main tune, which is played/sung one note at a time.*	**Chord**	*Two or more notes played at the same time.*
Pitch	*How high or low the note is.*	**Triad**	*A chord made up of three pitches: the 1st, 3rd and 5th.*
Bass	*The lowest-pitch part of the music.*	**Extended chord**	*A chord featuring a triad with the addition of 1 or more additional notes*

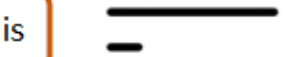
READING MUSIC





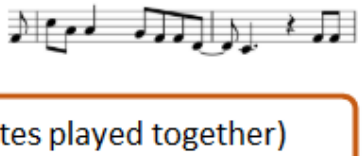
Basic Elements of Music

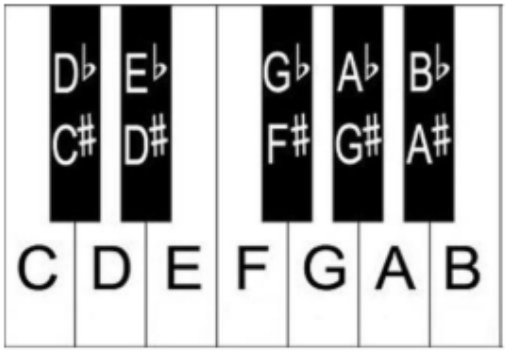
Pitch	How high or low a note is
Duration	How long a note is
Dynamics	The Volume
Tempo	Fast and Slow
Timbre	Different instrument sounds
Texture	Layers of sound
Structure	How are sections organised (ABACA)
Silence	No sound at all



Further Elements of Music

Melody	The Tune
Harmony	The Chords (notes played together)
Tonality	Major, Minor, Modal, Atonal
Rhythm	How long notes last
Metre	How many beats per bar

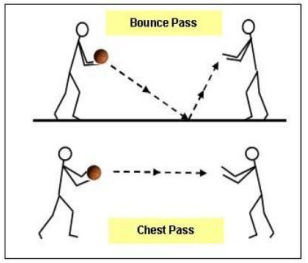
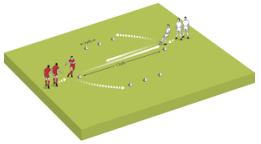




Keyboard note names

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**

Week 1 and 2	Week 3 and 4	Week 5 and 6	Week 7 and 8	Week 9 and 10	Week 11 and 12
Warming Up	**Benefits of Warming Up**	**Sporting examples:**	**Design your own:**	**Cooling Down**	**Benefits of Cooling Down**
Stage 1: Pulse raiser Gradually raising heart rate to increase blood flow around the body and speed up oxygen delivery to the working muscles by performing exercise that make the performer breathe faster. **Stage 2: Stretching** Stretching the muscles that will be used during the main activity. Stretches can be static or dynamic and aim to increase the range of movement. **Stage 3: Skills practice** Familiarising the performers body with the movements they are about to perform e.g. passing drill before football or netball fixture **Stage 4: Mental preparation** Ensuring the performers attention are entirely focussed on the performance e.g. mental reh earsal, deep breathing, visualisation, imagery and positive self-talk	-Effect on body temperature -Range of movement increased -Gradual increase of effort to full pace -Psychological preparation -Practice of movement skills through the whole range of movement -Injury prevention.  	**Netball:** **Pulse raiser:** 2 x laps of the netball court at a medium pace together as a team **Stretching:** In 1/3 of the netball court dynamic stretches: Lunges Squats Side lunges heel flicks High knees Skill related:  **Mental preparation:** Positive self-talk to team mates Visualising playing well and making successful passes into the 'D'.	Time to design your own warm up for a sport of your choice: Use the template below: **Sport:** **Pulse raiser:**  **Stretching:**  **Skill related drill:**  **Mental preparation:** 	**Stage 1: Elevated Breathing** Maintain elevated breathing and heart rate allows oxygenated blood to travel through our vessel, helping speed up recovery and removing waste products. **Stage 2: Gradual reduction of Heart Rate** A gradual reduction in the intensity of exercise, such as talking a jog down to a walk, keeps blood flowing through our vessels. **Stage 3: Stretching** We must stretch our muscles after exercise. Stretches can be static or dynamic and aim to reduce DOMS (delayed onset of muscle soreness	• Allows to body to recover quicker from exercise • Helps remove lactic acid, carbon dioxide and waste products • Helps to prevent DOMS  

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

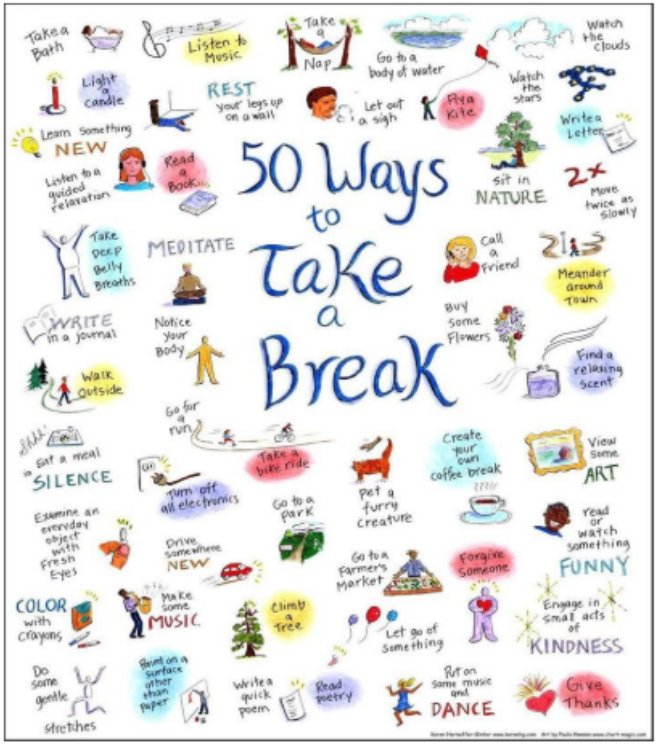
PSHE: How can I look after my well- being?

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.

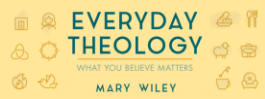
- Breathe – take a few deep breaths
- Have a glass of water
- Have a healthy snack
- Do a 5 minute burst of exercise
- Connect with someone you care about – give them a hug, send them a message
- Take a moment to be still and present

EH4MH EARLY HELP 4 MENTAL HEALTH

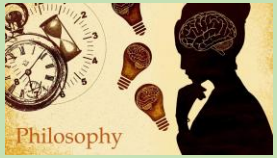
'10 a day' choices towards balancing our mental health

RPE: What Is Religion and What Is Truth?

1. Key Terms

Beliefs 	An acceptance that something exists or is true, especially one without proof.
Values 	Principles or standards of behaviour; a judgement of what is important in life.
Citizenship 	Learning about and getting involved in public life.
Religion 	A particular system of faith and worship
Theology 	Questions about belief: what it is, where it has come from, how it has changed over time and how it is applied in different contexts

2. More Key Terms

Philosophy 	Questions about the nature of reality, existence and knowledge
Social Science 	Questions about the way that religion and beliefs are lived and the impact they can have at an individual, communal and societal level
Worldview 	a particular philosophy of life or conception of the world
K 	Facts, information, and skills acquired through experience or education
Truth 	That which is true or in accordance with fact or reality

3. A Few More Key Terms!

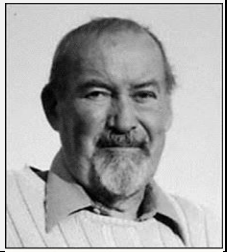
'Ultimate' Questions 	Questions which we may never know the answer to
In Vitro Fertilisation (IVF) 	The process of creating an embryo outside of the body and then implanting it into the uterus
Free Will 	The freedom to make choices for yourself.
Soul 	The non-physical part of a person; the part of a person that Christians believe connects with God.
Anatta 	The doctrine of "non-self" – that there is no unchanging, permanent self or soul.

RPE: What Is Religion and What Is Truth

4. What Is Religion? - Overview

- Religion is a particular system of faith and worship.
- Ninian Smart looked at the features that religions have in common and came up with 7 dimensions:

1. Beliefs and teachings
2. Rules
3. Feelings
4. Social
5. Material
6. Rituals
7. Stories



5. Why Do We Have Religion? – Overview

- Many people need religion for the following reasons:
- It can explain the origins of life.
- Religion can give hope that there is a life after death.
- Most religions contain stories that can offer hope/calm
- Religion can bond communities together
- It can offer answers to 'ultimate' questions.
- Religion offers guidance/help – a deity to pray to, to give strength.

6. How To Study BVC Through Different lenses - Overview

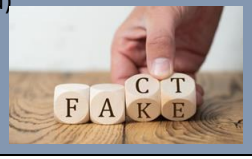
- BVC is a 'multidisciplinary' subject
- The 3 core disciplines used in BVC lessons are theology, philosophy and the social sciences.
- We all have our own lenses which will have developed from our life experiences and learning!
- Your personal lens may change as you learn and experience more.

7. What Is A Worldview? -

- A worldview is a particular philosophy of life or conception of the world.
- Our own worldview journey is personal and will be shaped by our own individual background, family, and cultural influences.
- World…on.

8. What Is Truth? -Overview

- A truth is a fact or belief that is accepted as true.
- There are different types of truths – some examples are scientific, moral, spiritual and historical.
- Many people would say for something to be true, there needs to be empirical evidence
- Some people would argue that beliefs can't be truths as they don't always have evidence
- Truth – A fact or belief accepted as true.
- Belief - the feeling of certainty that something exists or is true.
- Knowledge - Justified true belief (a belief that is true and can be evidenced)



9. Scientific & Religious Truths-Overview

- '**Ultimate' questions** are questions which we may never know the answer to. Religious truths try to answer some of these questions
- Science and religion often respond in different ways to different situations.
- For example, **In Vitro Fertilisation (IVF)**- The process of creating an embryo outside of the body and then implanting it in to the uterus – a scientific approach may be to embrace this due to the advances in technology. Some religious views, however, may believe this goes against nature.

10. How Should We Value Human Life?- Overview

- Value is the relative worth, merit, or importance of something.
- What we believe affects what we value and how we behave. E.g. someone who believes in life after death affects the way they value their life and makes them want to behave well so that they will be rewarded in their afterlife.
- Christians and Muslims believe in the **Sanctity of Life**- The belief that only God has the right to create and end life.

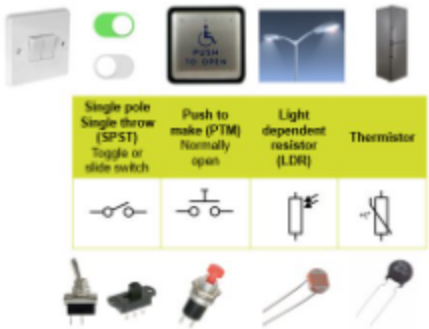
11. What Makes Us Human? - Overview

- **Freewill** = Humans having a choice about how they live - what they believe, what they value and how they behave.
- Christians believe that God created us to be spiritual beings like him. God keeps in touch with humans through their spirit. This might be through prayer or an experience such as a magnificent sunset.
- Buddhists believe there is no such thing as the 'self'. This teaching is called 'Anatta'. If you take away our body, mind etc. we no longer exist, it's only the force of our good or bad actions which lives on (**Karma**).

MOOD LIGHT

INPUTS

Below are circuit symbols for some input components used in electronic circuits.



OUTPUTS

Output components are then used to change the electrical energy into light, sound, heat and movement.

EQUIPMENT

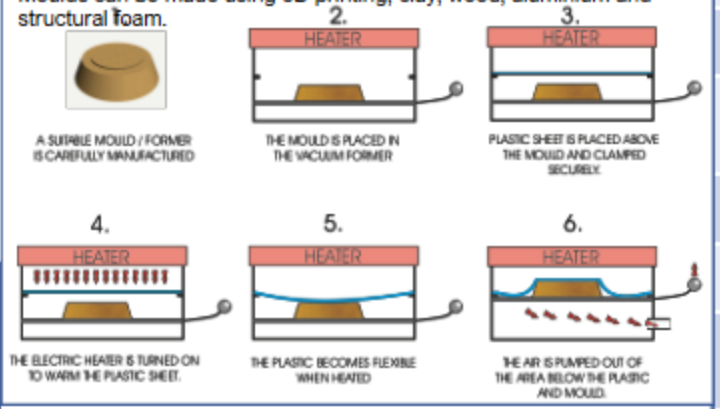
STOCK FORMS

VACUUM FORMING

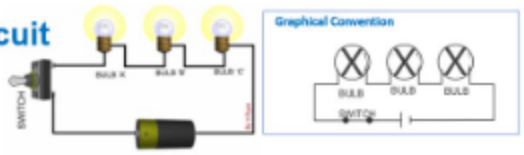
A manufacturing method used to shape plastic materials. During the vacuum forming process, a sheet of plastic is heated and then pulled around a single mold using suction.

Used for car parts, packaging, dental aligners, household products, storage containers, toys etc.

Moulds can be made using 3D printing, clay, wood, aluminium and structural foam.



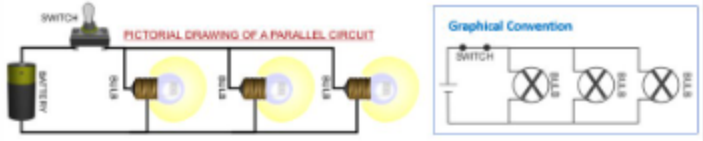
Series Circuit



The circuit above shows three bulbs placed in series. This is a called a series circuit. The Current flows through each of the bulbs in sequence. The more bulbs that are added, the less bright they shine. This is due to the resistance in each bulb.

Disadvantage:
If any of the bulbs fail, current cannot flow through the circuit and the other components will not work.

Parallel Circuit

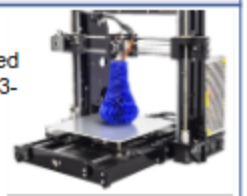


The circuit above shows three bulbs placed in parallel. This is a parallel circuit. Then current can flow through each of the bulbs, without first having to flow through any others

Advantage:
If any of the bulbs fail, the others will still work as current can still flow through the rest of the circuit.

KEYWORD	DEFINITION
Components	Term for any part of an electric circuit.
Schematic Symbols	Diagrams used by to show how a circuits components are connected together
Circuit	Path for transmitting electric current
Input	Initiates an electrical current to activate a circuit.
Output	An action produced as a result of an electrical current.
Soldering	a process in which two or more items are joined by melting and putting a filler metal (solder) into the joint
Tinning	a process of using a soldering iron to melt solder around a stranded electrical wire
Thermoforming Plastic	A polymer than becomes pliable when heated, then solidifies upon cooling
Thermosetting Plastic	a permanent setting polymer which hardens and sets during moulding process and cannot be softened again through heating.
C.A.M	Computer Aided Manufacturing
Polylactic acid (PLA)	a thermoplastic made from renewable resources such as corn starch, tapioca roots or sugar cane, used in 3D printing.
High Impact Polystyrene (HIPs)	Available in sheets for vacuum forming, yogurt containers, plastic cutlery, medical industry trays etc.

3D PRINTING



A process, whereby a 3D computer aided design (CAD) is used to manufacture a 3-dimension form.

How does it work?

A filament is heated and extruded, laid down, layer by layer, to form a three-dimensional object

When is it used?

Tools, textiles, toys, jewellery and component. For example, it is often used in the medical world to produce custom prosthetic limbs and hearing aids.

The future?

Research has been taking place for several years on 'bioprinters'. These are complex 3D printers, capable of printing bio-structures, used in surgery.

FIBRES

Natural fibres

Plant based

•cotton - harvested from cotton plants from China, USA and Pakistan, the fibres are cleaned, carded between wire brushes to lie in the same direction and spun into yarn

•bamboo - grown in China and Japan and is pulped and crushed, softened and carded before being spun into yarn

•linen - made from the flax plant grown in Canada, France and Russia, and processed in the same way as bamboo

Animal based

•wool - fleeces are sheared from animals such as sheep, alpaca and goats in UK, Australia and New Zealand; the short, staple fibres are cleaned, carded and spun into a yarn

•silk - silk moth cocoons are harvested in China and India, heated to undo the filament bonds and then spun into a filament fibre

Synthetic fibres

Oil based

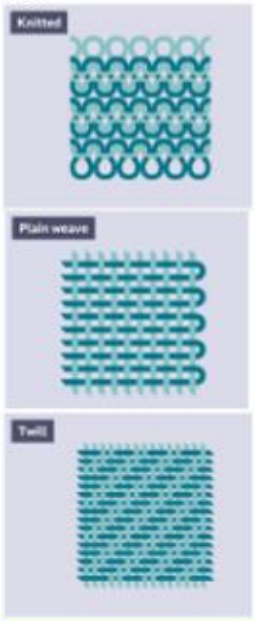
•polyester - polymer chains are extracted from oil and are then forced through a small hole into a filament fibre

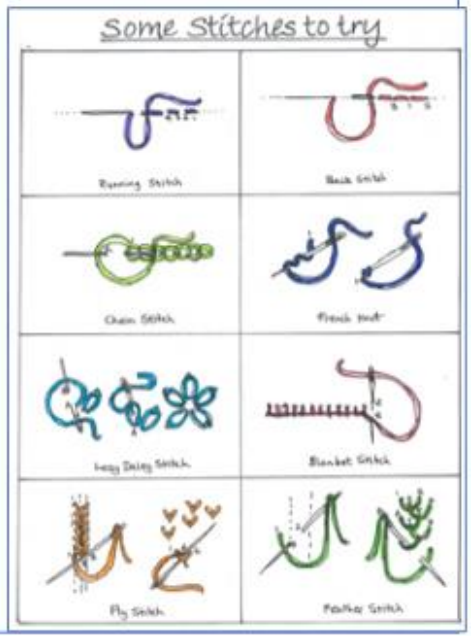
TEXTILES

KEYWORD	DEFINITION
Textiles	A type of cloth or woven fabric.
Fibres	Natural or synthetic structures that can be spun into yarn and woven, knitted, or bonded into fabric
Natural Fibre	Fibres product from bio-material such as plants or animals.
Synthetic Fibre	man-made textile fibre produced entirely from chemical substances
Yarn	A Spun thread used for knitting, weaving, or sewing.

FABRIC STRUCTURES

Different fabric structures are produced by weaving or knitting yarns which interlock together. The structure of the fabric will alter the fabrics strength, ability to stretch, appearance and comfort.





Technology

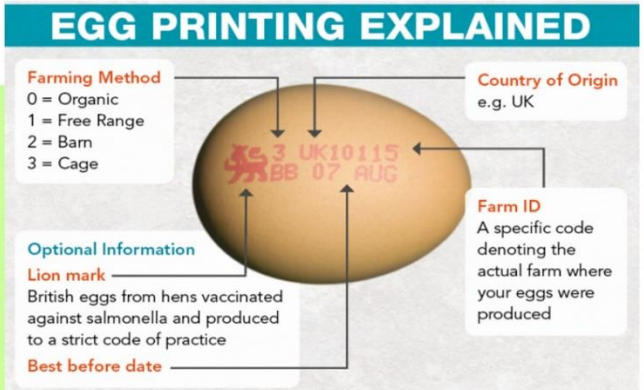
Knowledge Organiser

5 reasons for eating 5 a day

1. Fruit and vegetables are a good source of vitamins and minerals, including folate, vitamin C and potassium.
2. They're an excellent source of dietary fibre, which can help to maintain a healthy gut and prevent constipation and other digestion problems. A diet high in fibre can also reduce your risk of bowel cancer.
3. They can help to reduce your risk of heart disease, stroke and some types of cancer.
4. Fruit and vegetables contribute to a healthy, balanced diet.
5. Fruit and vegetables taste delicious and there's so much variety to choose from.

Fruit and vegetables are also usually low in fat and calories (provided you don't fry them or roast them in lots of oil). That's why eating them can help you maintain a healthy weight and keep your heart healthy.

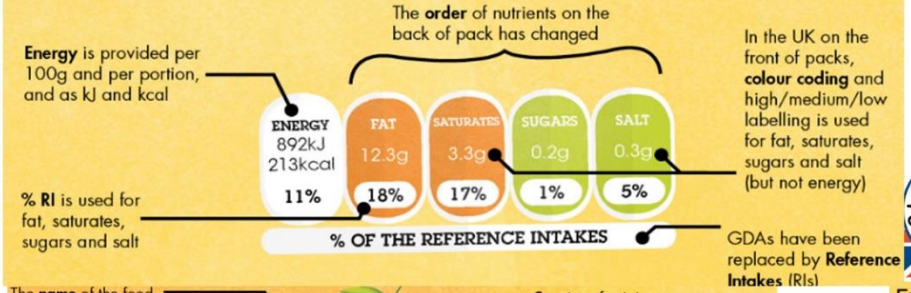
EGG PRINTING EXPLAINED

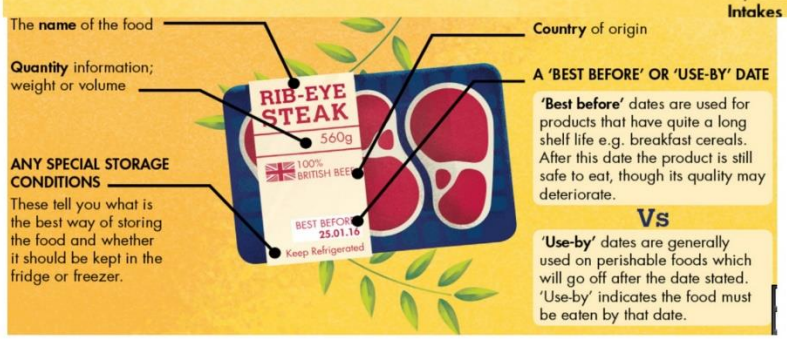


NUTRITION LABELLING

Nutritional information on the label can help you make healthier eating choices. Since 2014 there have been new European regulations on food labeling, controlling all the information on food labels from nutrition labelling and the ingredients list, to the size of the writing used.

What do nutrition labels on food include now?





Vegetables are available in many varieties and can be classified into biological groups or 'families', including:

- Leafy green - lettuce, spinach and kale
- Cruciferous - cabbage, cauliflower, Brussels sprouts and broccoli
- Marrow - pumpkin, cucumber and courgette
- Root - potato, sweet potato and carrot
- Edible plant stem - celery and asparagus
- Allium - onion, garlic and shallot.

Farm assured means that the farms have met robust standards of food safety and hygiene animal health and welfare.
The tractor logo is a sign of farm assurance and products can be tracked back to the farms they came from.

Fruit is the sweet, fleshy, edible part of a plant. It generally contains seeds. Common types of fruits include:

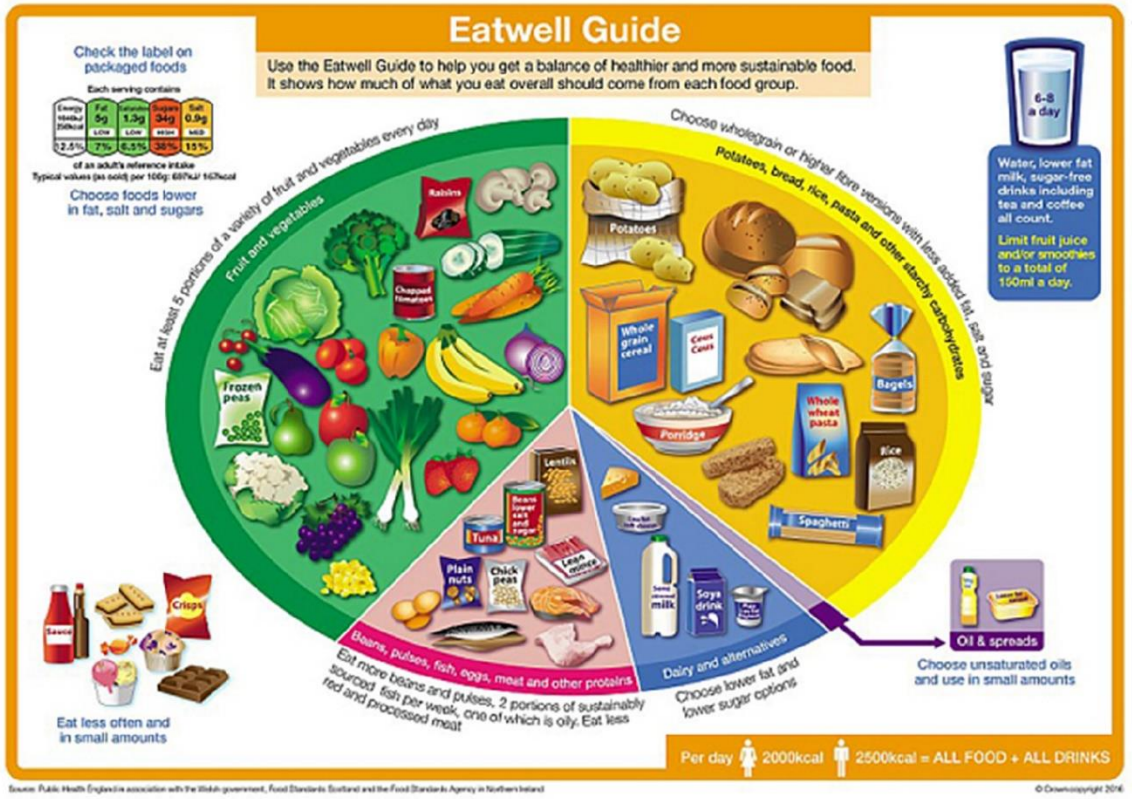
- Apples and pears
- Citrus - oranges, grapefruits, mandarins and limes
- Stone fruit - nectarines, apricots, peaches and plums
- Tropical and exotic - bananas and mangoes
- Berries - strawberries, raspberries, blueberries, kiwifruit and passionfruit
- Melons - watermelons, rockmelons and honeydew melons

Fairtrade

Fairtrade changes the way trade works through better prices, decent working conditions and a fairer deal for farmers and workers in developing and **lower economically developed countries (LEDC)**. This enables them to have more control over their lives and decide how to invest in their future, and maintain their livelihood.

There is a wide range of food products that are certified as being Fairtrade such as coffee, cocoa, bananas, rice and sugar. By choosing Fairtrade products the purchaser makes a decision to try and support not only farmers and their families, but also the communities that they live in. The premium attached to Fairtrade products means that the additional money raised from products can be invested, by the farmers themselves, into community development such as schools, health care, transport and sanitation.

▲ Fairtrade bananas



Seasonal food

When we visit the supermarket we often take for granted the range of products available to us. However, we don't often stop to think about where the foods come from and whether or not they are in season. Seasonal food means the foods that are available at different times of the year in the UK, according to their growing season. When considering seasonal foods we most often think of fruits and vegetables, although meat and fish also have seasons.

There are a number of benefits to eating more local, seasonal food:

- To reduce the energy needed to grow and transport the food we eat, which also reduces carbon emissions.
- To avoid paying more for food that has had to travel further.
- To support the local economy.
- Seasonal food is fresher and so tends to be tastier and more nutritious.

Sensory descriptors

When analysing food products we use a range of vocabulary to describe each of the sensory qualities. Often these descriptors can be used to describe more than one of the food's attributes. This is because the senses are closely linked.

▲ Appearance and colour

▲ Taste and texture

▲ Smell or aroma

▲ Sound

Below are some examples of sensory descriptors.

Taste	Texture	Aroma	Appearance	Sound
Spicy	Moist	Sweet	Colourful	Crunchy
Bland	Soft	Yeasty	Dull	Sizzling
Sour	Juicy	Spicy	Shiny	Bubbling
Sweet	Crunchy	Citrus	Smooth	Popping
Salty	Chewy	Savoury	Rough	Fizzy
Fruity	Crisp	Buttery	Uniform	
Bitter	Smooth	Cheesy	Size	

Knowledge Organiser for Yr7 Sweet Dispenser Project – KEY TERMS & DEFINITIONS

Natural Timbers – Hardwoods:

Hardwoods come from deciduous (broad leaf) trees and are usually slow growing which tends to make them more expensive. Hardwoods usually have a broad leaf shape. They can be harder to work with but are typically more durable.

- Hardwoods are deciduous which means they lose their leaves.
- You can distinguish hardwoods by the structure of the wood grain as it is much closer together than softwoods.
- Hardwood is much more expensive than softwood because they take longer to grow.
- Examples include oak, teak, mahogany and beech.

Natural Timbers – Softwoods:

Softwoods come from coniferous trees which have needles instead of leaves. Softwoods grow faster than hardwoods so are cheaper and easier to work with because they are often softer than hardwoods, but this isn't always the case.

- Evergreen coniferous trees do not lose their leaves.
- Softwoods are often used in the construction industry.
- Softwood trees grow long and straight so giving long planks of wood.
- Examples include pine, spruce, larch and fir.

Manmade boards:

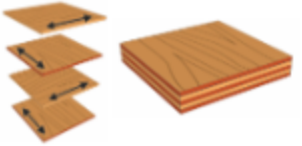
Manmade boards are commonly used in the construction industry, for interior fittings and furniture. They are more stable than natural woods and are less likely to warp and twist out of shape. They are nearly always 2.4m x 1.2m in size. Manmade boards such as plywood.

Three main types of manmade boards are:

- Plywood
- Particle boards e.g. chipboard
- Fibre boards e.g. MDF

These are all manmade in factories and are usually composed of natural woods and resin which binds them together. They can also be constructed so that they are extremely wide, making plywood a popular material in the construction industry.

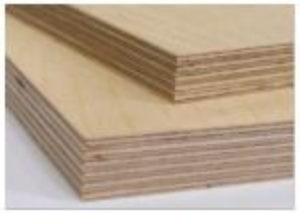
We are mostly using plywood to make your sweet dispensers from, but there are many different types available:



- Soft wood ply tends to be used in the construction industry for walls, roofs and floors
- Hardwood ply often used for quality laminate flooring, kitchen units and some furniture
- Marine plywood is used in boat hull construction as it is specially treated so that it is water resistant

Knowledge Organiser for Yr7 Sweet Dispenser Project – TOOLS, EQUIPMENT & MATERIALS

Power fretsaw



Plywood

Tenon saw

Glass paper & sanding block

Steel rule

Cordless drill

Bench vice

Clamp

Try square

Pillar drill

Belt sander

Tung oil

PVA glue

Notes