

Year 7

Knowledge Organiser

April - July 2026

AMBITION, CONFIDENCE, CREATIVITY,
RESPECT, DETERMINATION

Proud to be
part of the
 GREENSHAW
LEARNING TRUST



Why do we have knowledge organisers?

Knowledge organisers are a collation of the basic essential knowledge for success in each subject area that will underpin your learning for the term.

They are designed to provide the information you will need to be committing to your long term memory through recall exercises in Low Stakes Quizzing.

How do we use knowledge organisers?

You should be using these KOs to create your homework quizzes so that you are practising retrieving information.

1. You can do this by testing yourself on the definition of key terms (both recalling the key term and then swapping to recall the definition), practice labelling diagrams, retrieves reasons and justifications for the main learning points.
2. They can also be used for 'memory dumps' where you try to recall as much of the information about a topic as possible and then use the KP to fill in the gaps.
3. They can also be used in class to assist with retrieval of the core knowledge needed for each subject.

You should have these with you at all times in school and out on your desk in all lessons.

If you lose your KO or it becomes too dishevelled, please purchase a new one from the Head of Year or the School Office.

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Shakespeare context	Dramatic subject terminology	Aspirational vocabulary
<p>William Shakespeare - A famous English writer (1564–1616) who wrote plays and poems. He wrote about many types of love — romantic love, friendship, family love, and tragic love.</p> <p>Elizabethan era (1558–1603) - The time when Queen Elizabeth I ruled England. People believed strongly in social order and family honour. Marriages were often arranged for money or status. Women had fewer rights than men.</p> <p>Jacobean era (1603–1625) - The time when King James I ruled England (after Elizabeth I). Darker themes became popular in plays (betrayal, ambition, tragedy). Ideas about love became more complex and sometimes more dangerous.</p> <p>The Globe Theatre - The theatre in London where many of Shakespeare's plays were performed. All actors were male. There was no electric lighting or microphones. Audiences were loud and reacted during performances!</p> <p>Much Ado About Nothing (c. 1598–1599) - A comedy about misunderstandings, tricks, and romantic love. Love theme: True love vs. fake love; trust and forgiveness.</p> <p>Romeo and Juliet (c. 1595) - A tragedy about two young people from feuding families who fall in love. Love theme: Passionate, intense, and tragic love.</p> <p>Antony and Cleopatra (c. 1606–1607) - A tragedy about a powerful Roman leader and the Queen of Egypt. Love theme: Love vs. duty; political and passionate love.</p>	<p>Abstract noun - An idea, concept, quality, or state rather than an object. E.g. truth, danger, happiness.</p> <p>Adverbial phrases - A group of words that add to the meaning of a verb, adjective or adverb.</p> <p>Aside - A quick comment a character makes to the audience that other characters cannot hear.</p> <p>Comedy - A play that usually ends happily, often with marriages. It may include misunderstandings, disguises, and jokes.</p> <p>Concrete noun - a noun naming a material object. E.g. dog, building, tree.</p> <p>Conjunctive adverbials - Adverbs that act as conjunctions to link sentences or clauses together. E.g. however, furthermore, therefore.</p> <p>Dramatic Irony - When the audience knows something the characters do not.</p> <p>Monologue - A long speech by one character.</p> <p>Passive voice - When the subject receives (rather than does) the verb.</p> <p>Prologue - An introduction at the beginning of a play.</p> <p>Proper noun - The name of a person or place, requires a capital letter.</p> <p>Simple sentences - Made up of one main (or independent) clause.</p> <p>Soliloquy - A speech where a character speaks their thoughts aloud when alone on stage.</p> <p>Stage directions - Instructions in a play that tell actors how to move or speak. E.g. <i>Enter Romeo, Exit Juliet.</i></p> <p>Tense - Shows when a verb is done. E.g. past, present or future tense.</p> <p>Tragedy - A play about death and suffering, with a sad ending.</p>	<p>Betrayal - Breaking trust.</p> <p>Conflict - A problem or struggle between characters or ideas. E.g. love vs. family loyalty.</p> <p>Contemptuous - Expressing disapproval or disrespect.</p> <p>Courtly love - A medieval idea of love where a man admires a woman from afar and treats her like she is perfect.</p> <p>Duty - A responsibility to family, country, or social position.</p> <p>Devotion - Loyalty and love or care for someone or something.</p> <p>Exasperate - Irritate intensely.</p> <p>Forbidden love - Love that is not allowed because of rules, family, or society.</p> <p>Identity - Who a person is, or the qualities of a person that make them different to others.</p> <p>Ignominy - Public shame or disgrace.</p> <p>Lament - A passionate expression of grief or sorrow.</p> <p>Loathe - Hate.</p> <p>Loyalty - Staying faithful or true to someone.</p> <p>Masquerade - To pretend to be someone one is not.</p> <p>Passion - Strong, powerful feelings.</p> <p>Predicament - A difficult or embarrassing situation.</p> <p>Puritanical - Having a strict moral attitude towards self-indulgence or sex.</p> <p>Romantic love - Deep affection between two people in a relationship.</p> <p>Sentimental - Influenced by emotions.</p> <p>Solemn - Serious, without humour.</p> <p>Unrequited - Love that is not returned.</p> <p>Woo - To try to gain the love of, or charm.</p>

Fundamental subject terminology	Poetry subject terminology (after half-term)	Poetry terminology continued (after half-term)
<p>Noun – A naming word for a person, place, thing or idea. E.g. dog, London, book, happiness</p> <p>Adjective – A word that describes a noun. E.g. tall, scary, blue</p> <p>Verb – A doing, being or having word. E.g. run, is, have</p> <p>Adverb – A word that describes a verb (how, when, where or how often something happens). Often ends in -ly. E.g. quickly, yesterday, outside</p> <p>Preposition – A word that shows position or direction. E.g. under, over, between, through</p> <p>Pronoun – A word that replaces a noun. E.g. he, she, they, it</p> <p>Simile – A comparison using like or as. E.g. as brave as a lion</p> <p>Metaphor – A comparison that says something is something else. E.g. the classroom was a zoo</p> <p>Personification – Giving human qualities to something that isn't human. E.g. the wind whispered</p> <p>Pathetic Fallacy – When the weather reflects a mood or emotion in a story. E.g. dark clouds gathered as she cried</p> <p>Main Clause – A group of words that makes sense on its own and contains a subject and a verb. E.g. The dog barked.</p> <p>Subordinate clause – A group of words that adds extra information but does not make sense on its own. E.g. because it was hungry</p> <p>Colon (:) – Punctuation used to introduce a list, explanation or example.</p> <p>Semi-colon (;) – Punctuation used to join two closely related main clauses in one sentence.</p>	<p>Alliteration – The repetition of the same consonant sound at the start of nearby words.</p> <p>Ambiguity – When a word, phrase or idea has more than one possible meaning, creating different possible interpretations.</p> <p>Ballad – A song-like poem that tells a story, often with a regular rhythm and rhyme pattern.</p> <p>Blank verse - Writing that has a rhythm but doesn't rhyme.</p> <p>Caesura – A deliberate pause or break within a line of poetry, often shown by punctuation. It can slow the rhythm or create emphasis.</p> <p>Conditional phrasing – Language that expresses a condition or possibility, often using words such as "if" or "unless."</p> <p>Dialect – A form of language that reflects a particular region, culture, or social group.</p> <p>Enjambment – When a sentence or idea continues onto the next line without punctuation, creating flow or momentum.</p> <p>Extended metaphor – A comparison that is developed and sustained throughout a poem or section of a poem.</p> <p>Half-rhyme (or slant rhyme) – When words sound similar but do not fully rhyme.</p> <p>Iambic pentameter – A rhythm pattern made up of five pairs of syllables (ten syllables in total), where each pair has one unstressed syllable followed by one stressed syllable.</p> <p>Imagery – Descriptive language that appeals to the senses and helps the reader create vivid mental pictures.</p>	<p>Imperatives – Commanding or instructive verbs used to give advice, direction, or orders.</p> <p>Irregular stanza – A stanza that does not follow a consistent length or structure.</p> <p>Musical rhythm – A flowing, song-like beat created through sound patterns and regular stresses.</p> <p>Nostalgia - A warm or sometimes sad feeling when remembering the past.</p> <p>Repetition – The deliberate reuse of words or phrases to create emphasis or rhythm.</p> <p>Rhyme scheme – The pattern formed by the rhyming words at the ends of lines in a poem.</p> <p>Rhythm – The pattern of stressed and unstressed beats in a line of poetry.</p> <p>Romanticism - A literary movement from the late 1700s and early 1800s that focused on emotion, imagination, nature, and individual experience rather than logic and science.</p> <p>Second-person voice – When the poet addresses the reader directly using "you."</p> <p>Sonnet - A 14 line poem (usually concerning love) that has a tightly structured rhythm and rhyme scheme.</p> <p>Stanza - The correct term for a verse in a poem.</p> <p>Tone – The poet's attitude or emotional feeling towards the subject.</p> <p>Tone shift – A change in mood or attitude within a poem.</p> <p>Volta – A turning point in a poem, especially in a sonnet, where the focus or emotion changes.</p>

G: Angles

Topics

- Types of angles(M502)
- Estimating angles(M541)
- Measuring angles(M780)
- Drawing angles(M331)

Keywords

Acute - an angle measuring less than 90° .
Obtuse - an angle measuring between 90° and 180° .
Reflex - an angle measuring more than 180° .
Right angle - an angle measuring 90° .

Proportion word problems

Topics

- Solving proportion problems(M478)

Building Blocks

- Using a calculator(M757)

Keywords

Proportion - to show how quantities and amounts are related to each other.two fractions (or ratios) are equal.
Degrees - unit of measure for angles.

G: Finding unknown angles

Topics

- Angles on a line and about a point(M818)
- Vertically opposite angles(M163)
- Angles in triangles(M351)

Building Blocks

- Types of angles(M502)
- Solving equations with one step(M707)
- $ax+b=c$ (M634)

Keywords

Vertically opposite - the angles opposite each other when two straight lines cross.
Triangle - 3 sided shape.
Quadrilateral - 4 sided shape.
Equation - an equation is a mathematical formula that expresses the equality(=) of two expressions.

P & S: Averages and range

Topics

- Calculating the range(M328)
- Calculating the median(M934)
- Finding the mode(M841)
- Calculating the mean(M940)

Building Blocks

- Place value(M763, M704)
- Adding(M928, M429)
- Subtracting(M347, M152)
- Multiplying(M187, M803)
- Dividing(M354, M262)

Keywords

Range - the difference between highest and lowest value.
Median - the 'middle' of an ordered list of numbers.
Mode - the piece of data that appears the most.
Mean - adding up all the data points then dividing by the number of data points there are.

P & S: Tables and charts

Topics

- Interpreting frequency tables and two-way tables(M899)
- Drawing and interpreting tally charts(M597)
- Drawing and interpreting pictograms(M644)
- Drawing bar charts(M460)
- Interpreting bar charts(M738)

Keywords

Frequency - the number of times something is happening. This is an integer.

Two-way table - displays frequencies for two different categories collected from a single group of data.

Tally chart - simple way to record data and count the frequency for each category.

Pictogram - using images to show the value of given data.

Bar chart - a graphical display of data using bars of different heights.

P & S: Collecting and presenting data

Topics

- Collecting and recording data using tables(M945)
- Presenting data and making conclusions(M450)
- Finding averages from frequency tables(M127)
- Choosing suitable averages and solving problems(M440)

Building Blocks

- Averages and the range(M328, M934, M841, M940)
- Interpreting frequency tables and two-way tables(M899)
- Drawing and interpreting tally charts(M597)
- Drawing and interpreting pictograms(M644)
- Drawing and interpreting bar charts(M460, M738)

Keywords

(see Averages and range)

P & S: Theoretical probability

Topics

- Using probability phrases(M655)
- Writing probabilities as fractions(M941)
- Writing probabilities as fractions, decimals and percentages(M938)
- Probabilities of mutually exclusive events(M755)
- Sample space diagrams(M718)

Building Blocks

- Constructing fractions(M939)
- Adding and subtracting fractions(M835)
- Converting between fractions, decimals and percentages(M264)
- Ordering fractions, decimals and percentages(M553)
- Writing numbers as percentages of other numbers(M235)

Keywords

Fraction - a part of a whole. Made up of two parts; numerator and a denominator.

Decimals - a number that has a decimal point followed by digits that shows the fractional part.

Percent - a number or ratio that can be expressed as a fraction of 100.

Mutually exclusive - events that cannot happen at the same time.

Probability - likelihood of an event happening, given as fractions or decimals.

Sample space - all possible outcomes of an experiment.

N: Multiplying and dividing fractions

Topics

- Reciprocals(M216)
- Multiplying fractions(M157)
- Dividing fractions(M110)
- Multiplying with mixed numbers(M197)
- Dividing with mixed numbers(M265)

Building Blocks

- Simplifying fractions(M671)
- Converting between mixed numbers and improper fractions(M601)

Keywords

Reciprocals - the reciprocal of a number is one divided by the number.

Fraction - a part of a whole. Made up of two parts; numerator and a denominator.

Mixed number - a number larger than 1 written as a whole number and a fraction (e.g. $1\frac{2}{3}$).

N: Fractions of an amount

Topics

- Fractions of amounts without a calculator(M695)
- Fractions of amounts with a calculator(M684)

Building Blocks

- Multiplying fractions(M157)
- Solving proportion problems(M478)

Keywords

Fraction - a part of a whole. Made up of two parts; numerator and a denominator.

N: Fractions, decimals and percentages

Topics

- Converting between fractions and decimals(M958)
- Converting between fractions, decimals and percentages(M264)
- Ordering fractions, decimals and percentages(M553)
- Writing numbers as percentages of other numbers(M235)

Building Blocks

- Constructing fractions(M939)
- Finding equivalent fractions(M410)
- Simplifying fractions(M671)
- Ordering fractions(M335)
- Converting between mixed numbers and improper fractions(M601)

Keywords

Fraction - a part of a whole. Made up of two parts; numerator and a denominator.

Decimals - a number that has a decimal point followed by digits that show the fractional part.

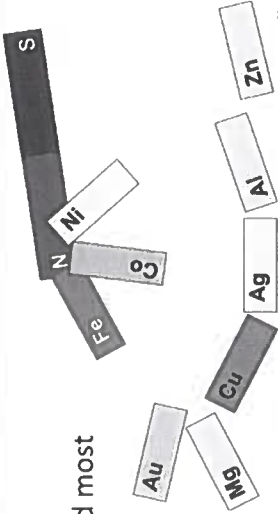
Percent - a number or ratio that can be expressed as a fraction of 100.

Year 7 Physics Knowledge Organiser – Electricity and Magnetism

Box 1 - Magnetic materials

Not many materials are attracted to magnets and most metals are NOT magnetic!

Iron, cobalt and nickel are magnetic metal elements. **Steel** is also magnetic as it is a mixture containing mostly iron.

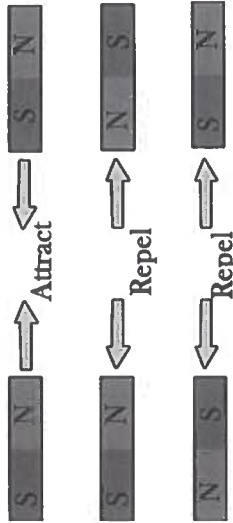


Box 2 – Rules of magnetic attraction and repulsion

Magnetic poles: All magnets have a north pole and a south pole at opposite ends of the bar magnet.

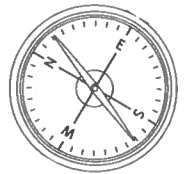
Opposite poles attract – north and south

Like (the same) poles repel – north and north, or south and south



Box 4 – Compasses and Magnetism

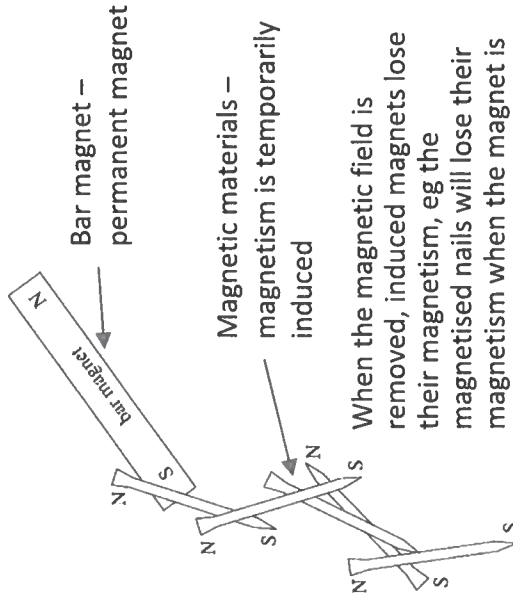
A **compass** contains a small bar magnet (the needle) that is able to rotate freely. A nearby magnet field will cause the needle to move in line with the magnetic field.



Box 3 – Permanent and induced magnetism

Permanent magnets always have magnetic properties, eg a bar magnet.

Magnetic materials become **induced magnets** when they are in a magnetic field.

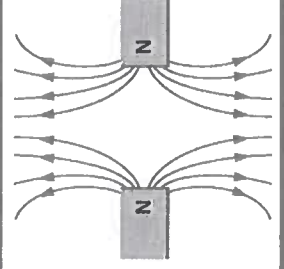
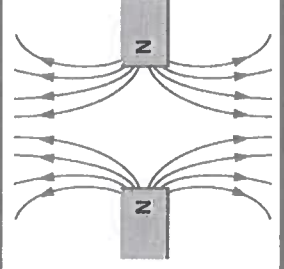
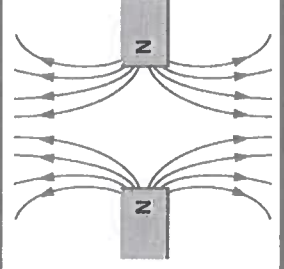
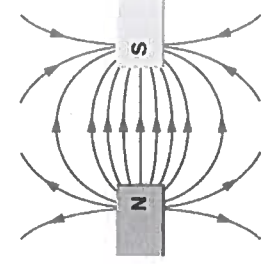


When the magnetic field is removed, induced magnets lose their magnetism, eg the magnetised nails will lose their magnetism when the magnet is removed.

Box 5 - Magnetic fields

The area around a magnet where its force can affect other magnetic objects is called the **magnetic field**.

The magnetic field is invisible but we can use a compass or iron filings to view the shape of the field.



The magnet fields of attracting magnets line up, while the magnetic fields of repelling magnets do not. Field lines always point from **north to south**.

Key Terms

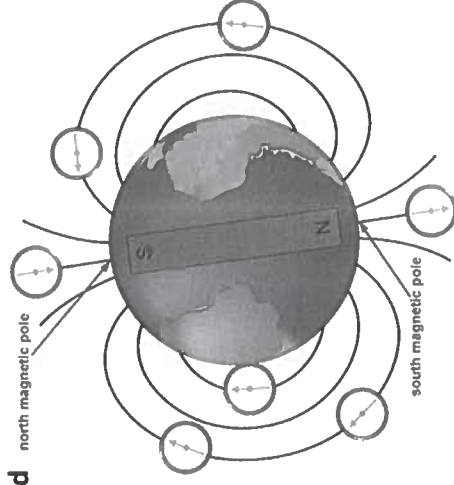
Definitions

Magnetism	A property of some materials to exert a force on other magnetic materials
Attract	Force that pulls two objects together
Repel	Force that pushes two objects apart
Magnetic poles	All magnets have a north pole and a south pole
Permanent magnet	Permanent magnets always have magnetic properties
Induced magnet	Induced magnets only act as magnets when they are in a magnetic field. When the magnetic field is removed an induced magnet quickly loses its magnetism
Magnetic field	The area around a magnet that the force acts
Magnetic compass	A magnetic compass always points along field lines in the direction of north

Box 6 – The Earth's Magnetic Field

The earth has a molten iron core which causes a magnetic field.

If there are no other magnets nearby, a compass needle points in the direction of the **Earth's magnetic field**.



Year 7 Physics Knowledge Organiser – Electricity and Magnetism

Box 7 – Electrostatics

Some particles are charged. Charge can be positive (+), negative (-), or neutral (0).

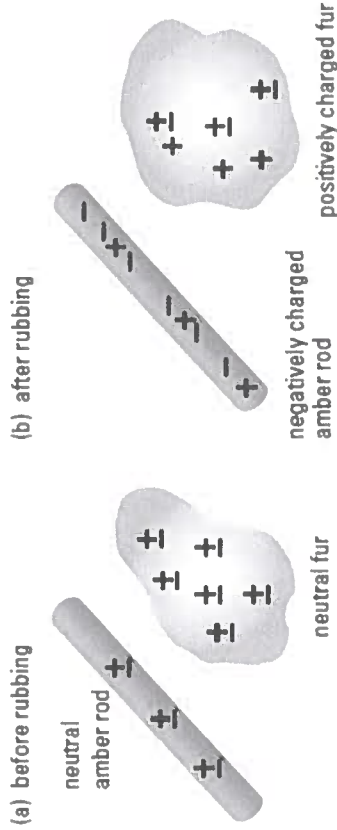


Box 8 - Charging objects with friction

Electrical insulators

can become charged.

An object that is rubbed can become charged by **gaining** OR **losing** electrons because of the friction force.



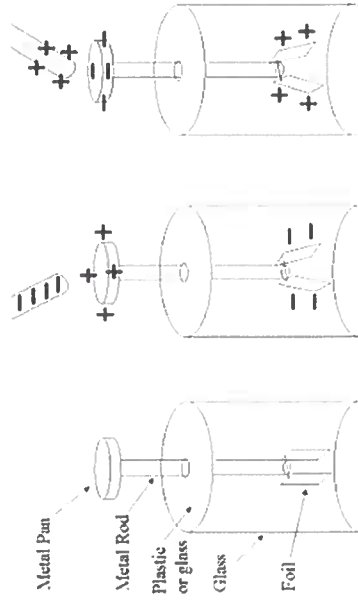
An object that loses electrons becomes positive (+)

An object that gains electrons becomes negative (-)

Box 9 – Measuring electrostatic charge

An **electroscope** can be used to detect electrical charge on objects.

When no charge is present, the foil hangs freely.



A charged object will either attract or repel electrons from/to the foil leaves and onto/away from the metal pan.

The foil leaves become charged so they repel each other.

The bigger the charge, the more the foil leaves repel each other.

Key Terms

Charge

A property of some particles, which causes them to experience a force when they are near others. Charge can be **positive** or **negative**

Proton

A subatomic particle with a **positive charge**

Neutron

A subatomic particle with **no charge** (they are **neutral**)

Electron

A subatomic particle with a **negative charge**

Electrical insulator

A material that prevents the flow of electrons

Electrical conductor

A material that allows the flow of electrons

Static electricity

This occurs when the positive and negative charges on an electrical insulator are unbalanced

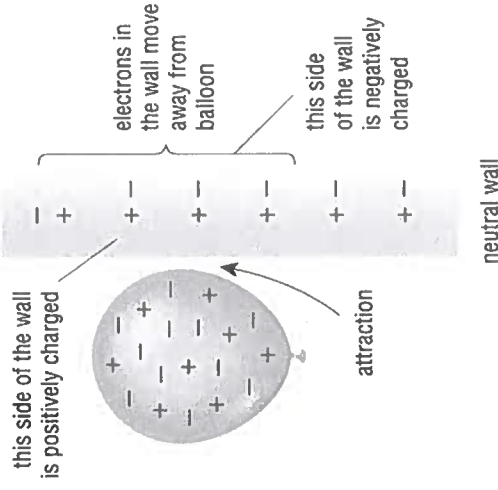
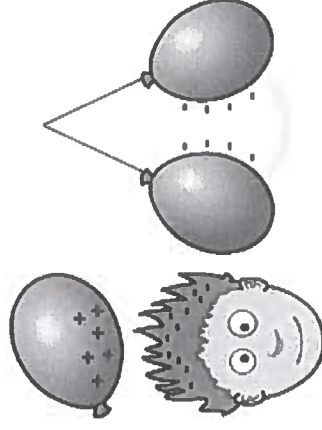
Electroscope

An instrument that can be used to detect electrical charge

Box 10 - Charged objects and forces

Objects with opposite charges are attracted to one another.

Objects with the same static charge will repel each other.



A charged object is attracted to a neutral object.

Electrons near the surface of the neutral object move when the charged object is brought near it.

This causes the surface of the neutral object to be charged so that attraction can occur.

Year 7 Physics Knowledge Organiser – Electricity and Magnetism

Box 11 – Electrical Current

Electrical current is a flow of electrical charge, usually **electrons**.

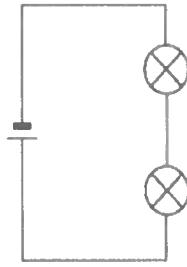
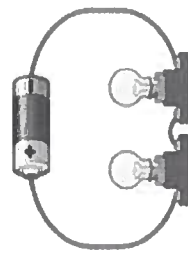
Electrical conductors allow electrons to flow through them.

A cell or battery sets up the difference in charge in the circuit, which causes electrons to flow from the negative charge towards the positive charge.



Box 12 - Drawing circuit diagrams

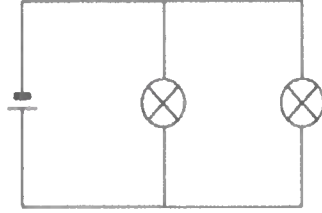
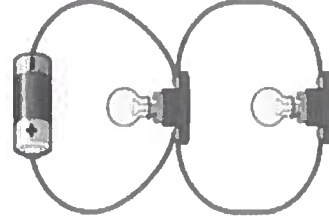
Symbols for components make electrical circuits easier to understand. The symbols are recognised across the world. The connecting wires are straight lines.



Series circuits contain only one loop or path for the current to flow along.






The more bulbs you put in the circuit, the dimmer the bulbs get.

If one bulb breaks, the whole circuit stops working.



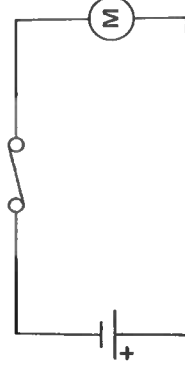
Parallel circuits contain more than one loop or path for the current to flow along. Adding new bulbs to the circuit in their own loop (connected in parallel) does not affect the brightness of other bulbs in the circuit.

If one bulb breaks, the rest of the circuit still works!

Key Terms	Definitions
Electrical current	A flow of electrical charge.
Cell 	A chemical store of energy that can cause an electrical current to flow in a circuit.
Battery 	Two or more electrical cells working together.
Connecting lead _____	A metal wire that allows current to flow through it easily.
Lamp / bulb 	A filament lamp contains a tiny wire that heats up when a current flows through it which emits light.
Open switch 	This provides a break in an electrical circuit so that current cannot flow.
Closed switch 	This connects the electrical circuit and allows current to flow.
Series circuit	An electrical circuit where all the components are connected in one loop.
Parallel circuit	An electrical circuit containing more than one loop or path for the current to flow.
Energy pathway	A way of transferring energy from one store to another, for example electrical current.

Box 13 - Electricity and energy transfer

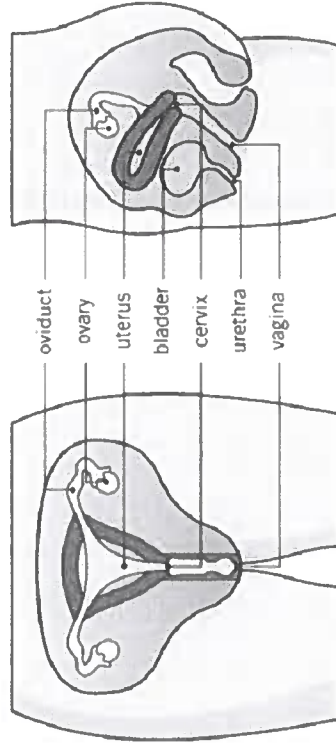
Electrical current is an **energy transfer pathway** – it transfers energy from one store to another. We call this electrical work done.



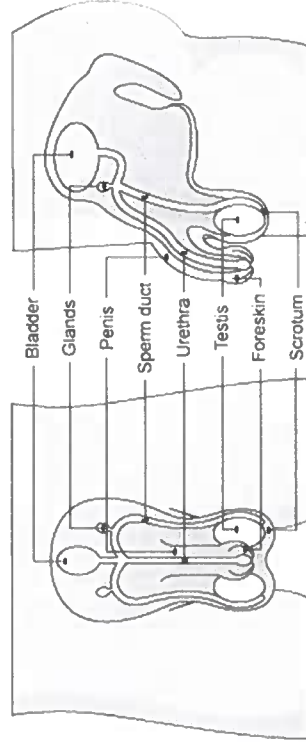
eg this circuit transfers energy from the cell (a chemical store) to the motor (a kinetic store)

Year 7 Biology Knowledge Organiser - Organisation 2 - Reproduction - the process by which offspring are produced

Box 1 – Female reproductive system



Box 2 – Male reproductive system



Box 3 – Puberty

During puberty reproductive hormones (chemicals made by the testes and ovaries) cause secondary sexual characteristics to develop, preparing an individual so they are ready to have offspring

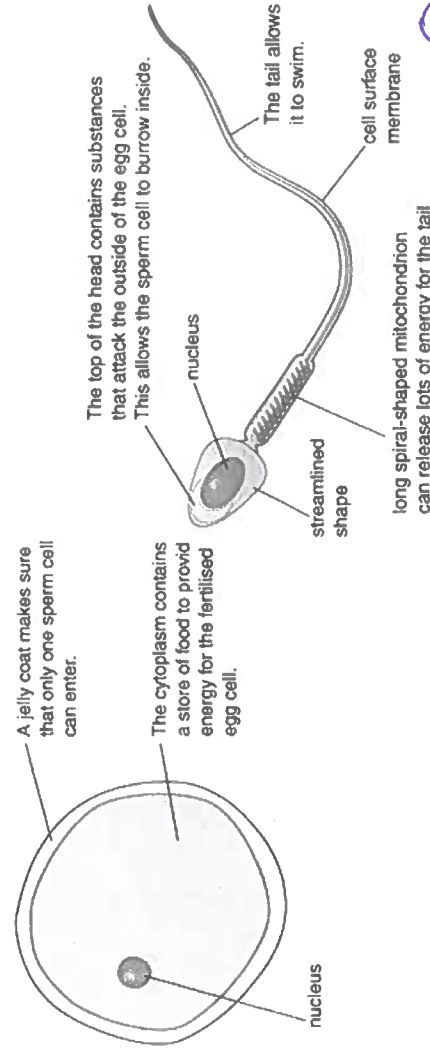
1. Secondary sexual characteristics in males include growth of pubic hair, voice breaks, testes and penis gets bigger, shoulders widen, facial and body hair grows, testes start to make sex hormones and the body gets more muscular
2. Secondary sexual characteristics in females include breasts developing, pubic hair growing, ovaries start to release egg cell, periods start, hips widen, ovaries produce female sex hormone

Box 4 – Functions of organs in the reproductive systems.

Ovary	Organ where egg cells are produced in females.
Testicle	Organ where sperm cells are produced in males.
Penis	Organ which carries sperm out of the male
Scrotum	The skin that holds the testes
Urethra	The tube that carries either urine or semen out of the body through the penis
Vagina	Where the penis enters the female. This is also called the birth canal.
Oviduct, or fallopian tube	Carries an egg from the ovary to the uterus and is where fertilisation occurs.
Uterus/Womb	Where an embryo develops into a foetus and eventually into a baby.
Cervix	A muscular ring between the vagina and uterus. During birth it dilates to 10cm. It is sometimes called the neck of the womb.

Box 5 – Sex cells

Egg cells are female sex cells and sperm cells are male sex cells.



Year 7 Biology Knowledge Organiser - Organisation 2 - Reproduction - the process by which offspring are produced

Box 6 - Menstrual Cycle

The menstrual cycle is a **28 day cycle** where an egg cell is matured and released from an ovary and the uterus is prepared to support a fertilised egg cell during pregnancy. It is controlled by chemicals called hormones.

Days 1-5 - Uterus lining is lost (a period)

Days 6-13 - Uterus lining builds up and thickens to prepare for pregnancy and a new egg cell matures in the ovary.

Day 14 - Ovulation: a mature egg cell is released from an ovary.

Days 15-28 - Uterus lining stays thick and the egg cell travels down the oviduct to the uterus.

Box 7 - Fertilisation

Fertilisation usually occurs after sexual intercourse. Fertilisation is when a single sperm cell from a man joins with an egg cell from a woman. The nucleus of each cell fuses/joins together.

Fertilisation happens in the oviducts.

Fertilisation can be prevented using contraceptives such as the condom or 'the pill'. If the egg cell is fertilised, it starts to divide into a ball of cells called an embryo. The embryo implants into the lining of the uterus.

Box 8 - Gestation (Pregnancy)

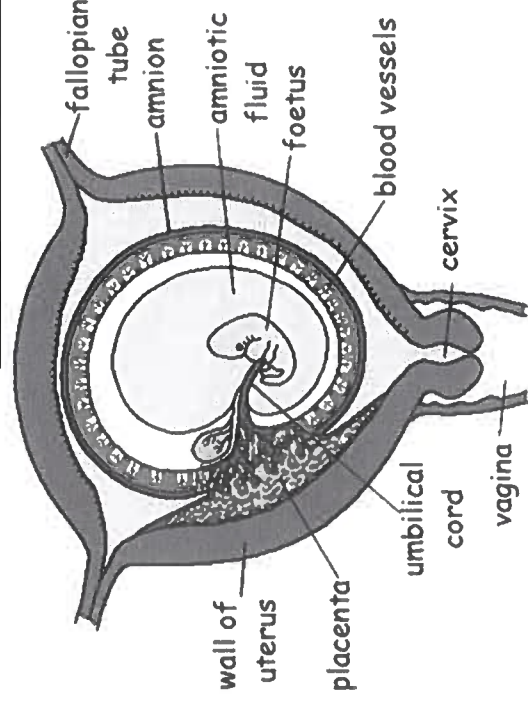
Average human gestation period from fertilisation to birth is 38 weeks.

A placenta forms between the lining of the uterus and the foetus, which allows nutrients and oxygen to pass from the mother's blood to the baby's blood, and for waste products and carbon dioxide to pass back to the mother's blood.

Harmful substances such as drugs and alcohol can pass across the placenta and harm the developing baby.

The baby is surrounded by amniotic fluid which protects it from knocks and bumps. The wall of the uterus is made of muscle, which contracts to when the mother is in labour.

Key Terms	Definitions
Fertilisation	Joining of a nucleus from a male and female sex cell
Implantation	When the growing embryo becomes embedded in the thick, spongy uterus lining.
Gestation	Process where the baby develops during pregnancy. In humans it takes around 38 weeks.
Placenta	Organ that provides the foetus with oxygen and nutrients and removes waste substances.
Amniotic fluid	Liquid that surrounds and protects the foetus.
Amniotic sac	A thick membrane that encloses the amniotic fluid (and developing foetus)
Umbilical cord	Connects the foetus to the placenta.
Embryo	The developing baby from fertilisation to 12 weeks.
Foetus	The developing 'baby' from 12 weeks until it is ready to be born.



Box 9 - Birth

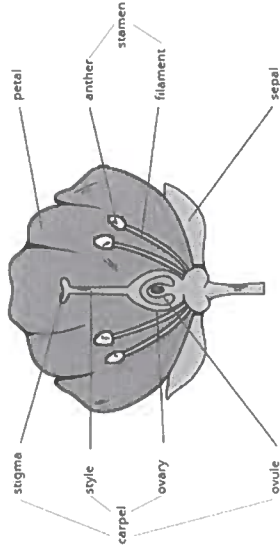
After about 40 weeks of pregnancy, the foetus is ready to be born.

- The muscles in the wall of the uterus contract (**contraction**)
- The cervix **dilates** (gets bigger) to **10cm**. This is big enough for the foetus's head to pass through.
- Contractions push the baby headfirst through the **cervix** and then through the **birth canal** - vagina.
- The foetus is now called a **baby**.

Year 7 Biology Knowledge Organiser - Organisation 2 -Plant Reproduction

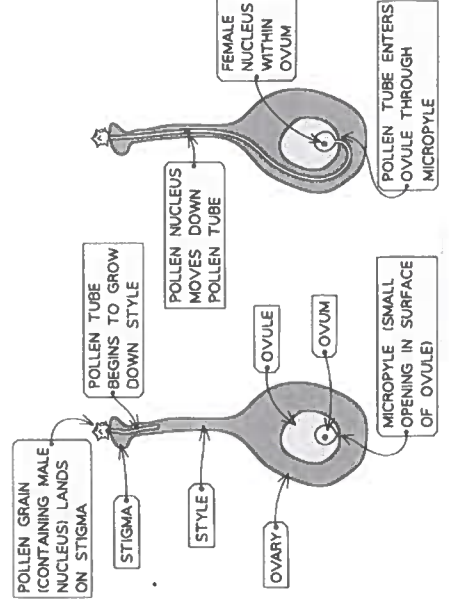
Box 10 – Parts of a flower

Flowers contains the reproductive structures in plants. The stamen is the male part, and the carpel is the female part.



Box 13– After pollination

1. When the pollen grain lands on the stigma, it grows a tube down the style to the ovary and the ovules..
2. The nucleus of the pollen grain moves down the tube and then fertilises the ovule by fusing with the ovule.
3. The fertilised ovule then becomes a seed.



Box 11 – Functions of parts of the flower.

Part of the Flower	Function
anther	Produces male sex cells (pollen grains).
carpel	The female reproductive part of the flower, consisting of the ovary, ovule, style and stigma.
filament	A stalk-like structure that supports the anther.
ovary	Produces female sex cells (eggs).
ovule	Develops into a seed after fertilisation.
petal	May be brightly coloured to attract insects.
sepal	These protect the flower before it is opened when it is still a bud. They are often green.
stamen	The male part of a flower consisting of an anther held up on a filament
stigma	The top of the female part of the flower, which is sticky, so pollen grains stick to it.
style	The tube connecting the stigma to the ovary which pollen travels down.

Box 12 – Comparing insect and wind pollination.

Pollination is the process of pollen being transferred from the anther to the stigma. This is carried out by wind or insects, such as bees.

Insect-Pollinated Plants	Wind-Pollinated Plants
They have bright petals with a sweet smell to attract insects.	No petals or small green/brown petals, as no need to attract insects.
The stigma and anther are inside the flower.	The anther hangs loosely out of the plant to make it easier for wind to blow it from the plant.
The stigma is sticky, so that pollen carried from the insects sticks to it.	The stigma hangs outside of the plant to make it easier to catch pollen on the wind
Pollen grains are larger and can easily stick to insects, so fewer pollen grains need to be produced.	The stigma may be feathery or sticky to catch pollen blown by the wind.
The anthers are firm and rigid to allow the insects to brush against them.	They produce large amounts of pollen to increase the chances of it reaching another plant.
They often contain nectar, which is sweet and sugary to attract insects. Some bees use nectar to make honey.	Their pollen has a low mass so can be blown far on the wind.

Box 14 – Seed dispersal

Once seeds have been formed, the seeds need to be spread away from the plant that produced them. This means that the new plants aren't competing for light, space etc.

Different plants use different methods of seed dispersal. These include:

1. Wind blows them away – e.g. dandelion seeds.
2. Being eaten by animals and then spread when the animal 'poos'. E.g. cherry seeds.
3. Sticking to animals and then spread when they move around. E.g. Goose grass seeds.
4. Self-propelled – the seed bursts and propels the seed away. e.g. Himalayan balsam.

Year 7 Biology Knowledge Organiser – Interdependence

Box 1: Ecosystems

An ecosystem is the interaction between the living things and non-living things in an environment.

- Organisms within an ecosystem rely on each other for food, shelter, seed dispersal etc.
- Animals compete with each other for food, mates and territory.
- Plants within a habitat compete for light, space, water and mineral ions from the soil.

Box 2: Feeding Relationships (food chains and food webs)

A **food chain** shows the transfer of energy between organisms in an ecosystem:

e.g. lettuce → caterpillar → bird

Arrows show the transfer of energy from one organism to another.

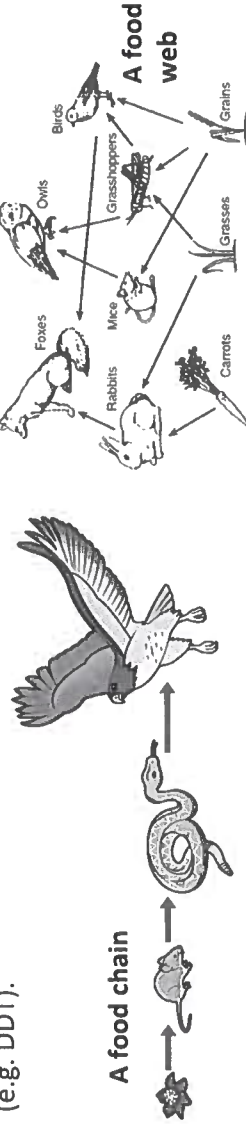
A **food web** is used to show the feeding relationships within an ecosystem and is made of multiple food chains.

Energy for all food chains and food webs comes from the Sun.

All food chains and webs start with a producer. Consumers are animals that eat to get energy.

A top consumer is an organism that isn't eaten by any other, e.g. lion.

Populations of organisms within an ecosystem can be affected by numbers of other organisms within the ecosystem or by human behaviours such as hunting or poisoning (e.g. DDT).



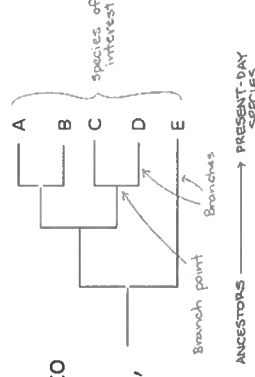
Box 3: Classification

Organisms are classified based on their similarities and differences. Classification allows organisms to be identified and enables scientists to identify new species.

Carl Linnaeus started the classification system as we know it today. Organisms are assigned a kingdom, phylum, class, order, family, genus, and species.

When organisms are part of the same species they can successfully reproduce. Each species is given a Latin name, the first name is the Genus and the second name is the species name – for example the hare has the binomial name, *Lepus europus*

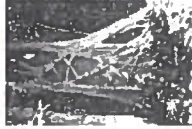
Key Terms	Definitions
Organism	A living thing
Habitat	Area in which organisms live
Ecosystem	Interaction of a community of living organisms with the non-living parts of their environment
Predator	Organism that hunts and kills its food
Prey	Organism that is eaten by another organism
Scavenger	Eats food that has been killed by a different organism
Carnivore	Organism that only eats meat
Herbivore	Organism that only eats plants
Omnivore	Organism that eats plants and animals
Producer	Organism that produces its own food, e.g. a plant
Consumer	Organism that eats food to gain energy and biomass, e.g. an animal
Food chain/web	Diagrams to show the transfer of energy in an ecosystem
Classification	Grouping organisms based on their similarities and differences
Species	Organisms that are able to successfully reproduce
Adaptation	Feature or behaviour that increases the chances of survival: Structural (feature of an organism's body), Behaviour (response made by an organism), Functional (body process)



Year 7 Biology Knowledge Organiser – Interdependence

Box 3: Adaptations of Plants in Tropical Regions

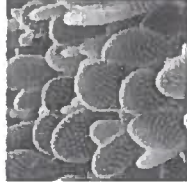
- Drip tips and waxy surfaces allow water to run off, to discourage growth of bacteria and fungi
- Buttresses, prop and stilt roots help hold up plants in the shallow soil
- some plants grow on other plants to reach the sunlight



Box 5: Adaptations of desert plants

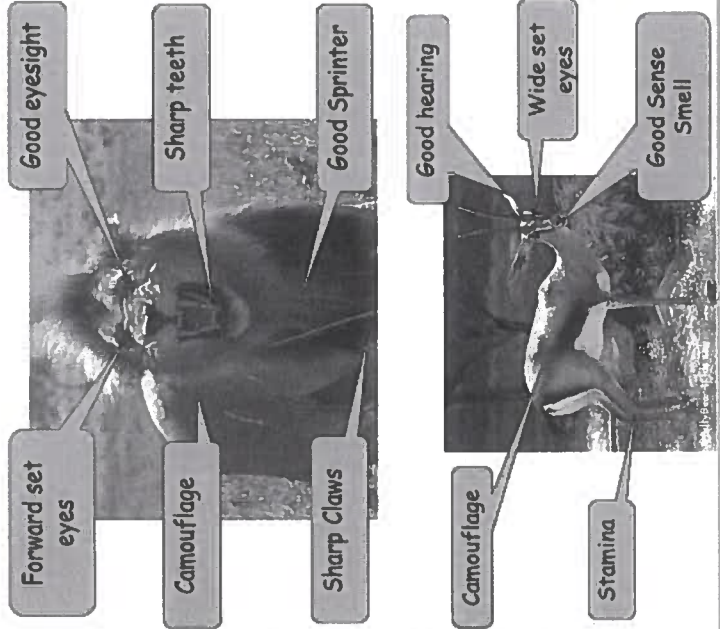
PLANT ADAPTATIONS

- **Structural:**
 - Shallow roots to soak up water over a large area
 - Deep roots to get to water stored underground
 - No leaves to reduce water loss
- **Functional:**
 - Photosynthesis in stems because no leaves
 - Flowers open at night when cooler

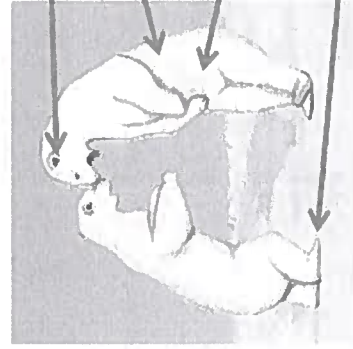


Box 4: Adaptation	Animal in cold climates	Animal in dry climates	Plants in Dry Climates (cactus)
Behaviour	Penguins huddle together to conserve heat	Often nocturnal when temperature is cooler	n/a
Structural	Thick fur and thick layer of body fat. Small SA : Vol ratio	Thin limbs giving a large SA : Vol ratio. Loses heat easily	Wide shallow or narrow deep roots. No leaves and waxy cuticle
Functional	Hibernation: rate of reactions decreases for hibernation	E.g. Camel produces little urine/sweat to conserve water	Photosynthesis in stem as no leaves

Box 6: Adaptations of predator and prey animals



Box 7: Adaptations of animals in cold regions



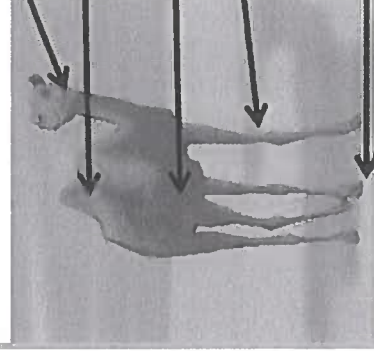
- Small ears help to reduce heat loss.
- Thick fur and a thick layer of body fat insulate from the cold.
- White fur acts as camouflage.
- Large feet to spread the body's weight. The wide paws act as good paddles and snow shoes.

Small surface area:volume ratio

Box 9: Surface area : Volume ratio

Surface area:volume ratio refers to how large the skin (or surface) of the animal is compared to the body size (or volume). A large ratio is when there is a large difference in the numbers in the ratio (e.g. 6:1)

Box 8: Adaptations of Animals and Plants in Dry Climates



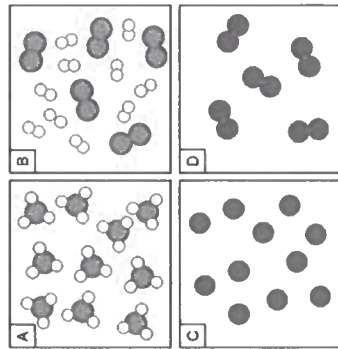
- Brown coat for camouflage.
- Fat is stored in the hump. There is no other body fat to prevent overheating.
- Loses little water through sweating or urine.
- Long, thin legs mean the body surface area is large compared to volume to increase heat loss.
- Wide feet for spreading body weight over soft shifting sand.

Large surface area:volume ratio

Year 7 Chemistry Knowledge Organiser – Separating Mixtures

Box 1 - Elements, Compounds and Mixtures

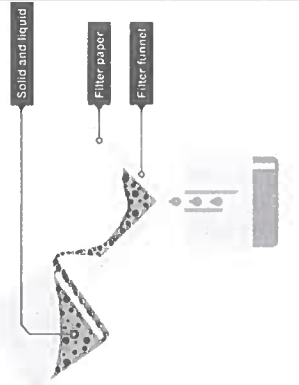
- All substances are made of many atoms.
- **Elements** are substances made of one type of atom.
- **Compounds** are substances made of two or more types of atom chemically joined together.
- **Mixtures** are two or more substances (either different elements or compounds) that are not chemically joined together.
- Mixtures are separated using physical processes and chemical bonds are not broken during any of these processes.



- A - a pure compound
- B - a mixture/impure substance
- C - a pure element
- D - a pure element

Box 4 – Filtration

Used to separate an insoluble solid from a liquid using **filter paper**: the solid particles are too large to pass through the filter paper.



Box 2 – Pure and Impure Substances

- A pure substance contains only one type of element or compound.
- An impure substance contains more than one type of element or compound in a mixture, for example salt water contains NaCl and H₂O. All mixtures are impure substances.

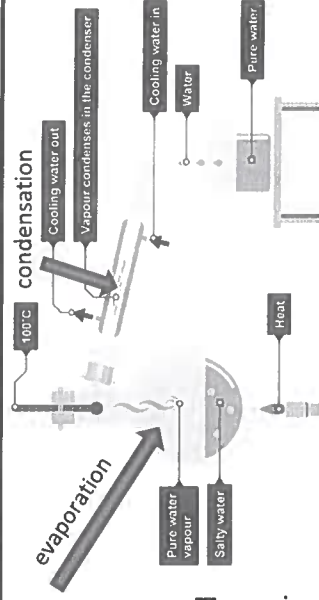
Box 3 – Solutions

- A **solution** is a mixture of a solute and a solvent.
- A **solute** is a substance that is able to dissolve into a solvent.
- A **solvent** is a liquid that is able to dissolve a solute.
- **Dissolving** occurs when a solute forms a solution with a solvent.
- **Soluble** substances are able to dissolve in a particular solvent.
- **Insoluble** substances can't dissolve in a solvent.

Box 6 – Distillation

Used to separate a solvent from a solution.

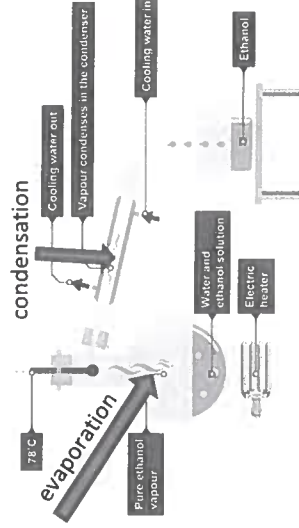
- The solution is heated so the solvent evaporates.
- The solvent in gas state is then cooled so it condenses back to a liquid.
- This process uses a Liebig condenser.



Box 7 – Fractional Distillation

Used to separate a mixture of liquids with different boiling points.

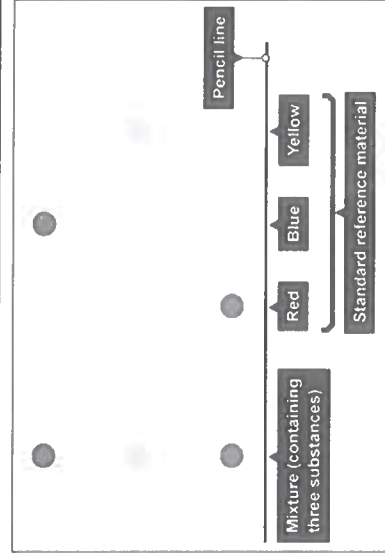
- The mixture is heated so the liquid with the lower boiling point evaporates.
- The separated gas is then cooled so it condenses back to a liquid.
- This process also uses a Liebig condenser.



Box 8 – Chromatography

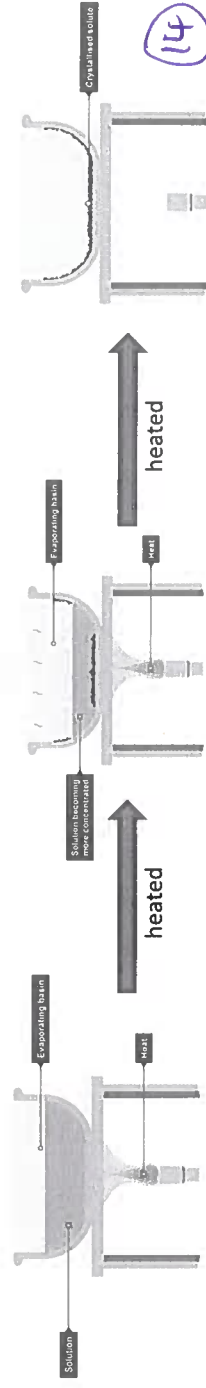
Used to separate a mixture of dissolved substances.

- The different parts of the mixture travel different distances up the chromatography paper.
- More soluble substances travel further up the chromatography paper.



Box 5 – Evaporation/Crystallisation

Used to separate a soluble solid from a solution. The solution is heated and the solvent evaporates and the solute remains in the evaporating basin.



Year 7 Physics Knowledge Organiser – The Solar System

Box 1: The Solar System

There are 8 planets in our Solar System. At the centre of the Solar System is the Sun, which is a star.

In order from the Sun the eight planets are:

- Mercury
- Venus
- Earth
- Mars
- Jupiter
- Saturn
- Uranus
- Neptune

These are the **inner** planets, they are made of rocks.

These are the **outer** planets, they are mostly made of gas.

The solar system is part of a Galaxy called the Milky Way.

The Milky Way contains millions of solar systems.

The Universe is made of billions of galaxies.

Box 2: Time and seasons

Many of our time measurements are based on the Earth and the Sun:

One day: the time it takes for the Earth to spin once on its axis (24 hours)

One year: the time it takes for the Earth to orbit the Sun once (365.25 days)

The seasons: occur because the Earth's axis is tilted, so at different times of the year each part of the Earth points in a different direction in relation to the Sun:

- When the Northern hemisphere is pointed towards the Sun it is summer for that half of the Earth. At the same time the Southern hemisphere points away from the Sun so it is winter for that half of the Earth.
 - When the Southern hemisphere is pointed towards the Sun it is summer. At the same time the Northern hemisphere points away from the Sun so it is winter.
 - Spring and Autumn are periods when neither the Northern nor Southern hemispheres are directly pointed towards the Sun.
- The direction the Earth points in affects the length of the day, and the light each hemisphere receives from the Sun: the longer the day, the more light and the hotter it is.

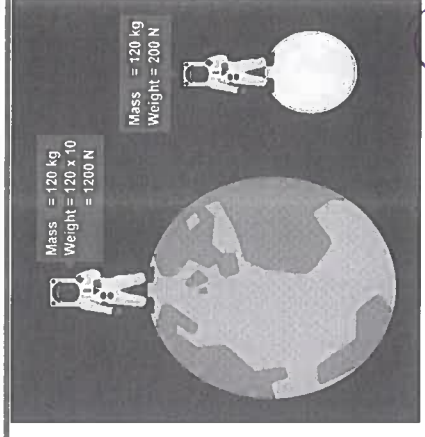
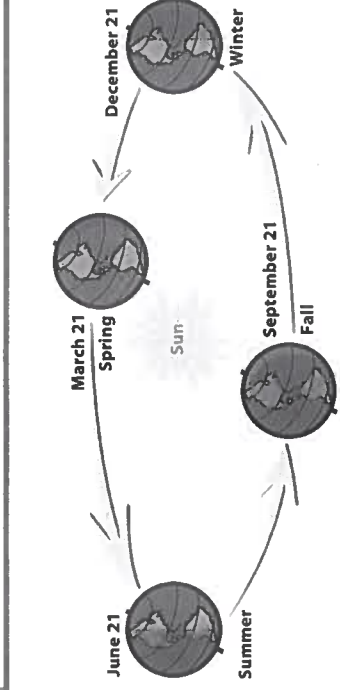
Key Terms	Definitions
Solar System	The sun and all of the planets in orbit around it
Galaxy	A system of millions or billions of stars held together by gravitational attraction.
Star	A huge ball of gas which can transfer thermal energy as light.
Planet	A large, circular object which orbits a star.
Dwarf Planet	A much smaller, circular object which orbits a star.
Comet	An object made of ice and dust which travels through the solar system. When near the sun, it gets a 'tail' of gas and dust particles pointing away from the sun.
Satellite	An object which orbits a planet or a dwarf planet.
The Moon	The satellite which orbits our Earth.
Orbit	The curved path an object takes around a star, planet or moon.

Box 3: Gravity

Gravity is a force that exists between any two objects with mass. The more mass an object has, and the closer two objects are together, the greater the force of gravity between them.

Gravity is different on different planets, because different planets have different masses. Gravity on Earth is 9.8 N / Kg.

An object which is on or close to a planet will experience a force of gravity which we call **weight**. The weight of an object will vary, because gravity varies, but mass will always remain the same.

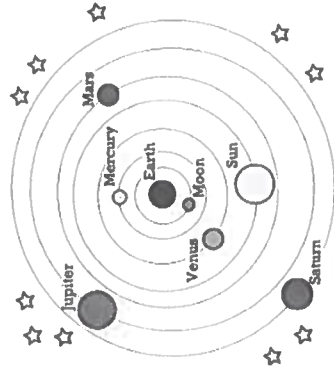


Year 7 Physics Knowledge Organiser – The Solar System

Box 4: Understanding the Universe

The way people think about the Solar System has changed many times throughout history.

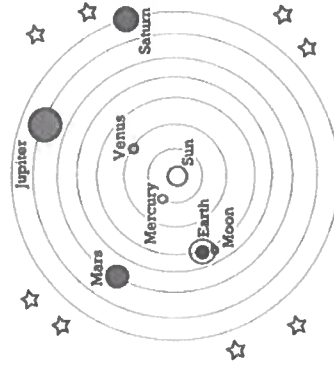
Before the development of the telescope, these ideas were based on what could be seen with the naked eye. This limited the details that could be gathered about the Solar System, as asteroids, most of the satellites of other planets, and the most distant planets are not visible to the naked eye.



Originally, people believed in the **geocentric model** and thought that the Earth was at the centre of the Universe and everything, including the Sun, stars and planets orbited the Earth.

Now we have better technology we have observed that the Universe follows the **heliocentric model** – everything in the solar system orbits the Sun.

We understand our solar system is one of billions in the Universe.



Box 5: Eclipses

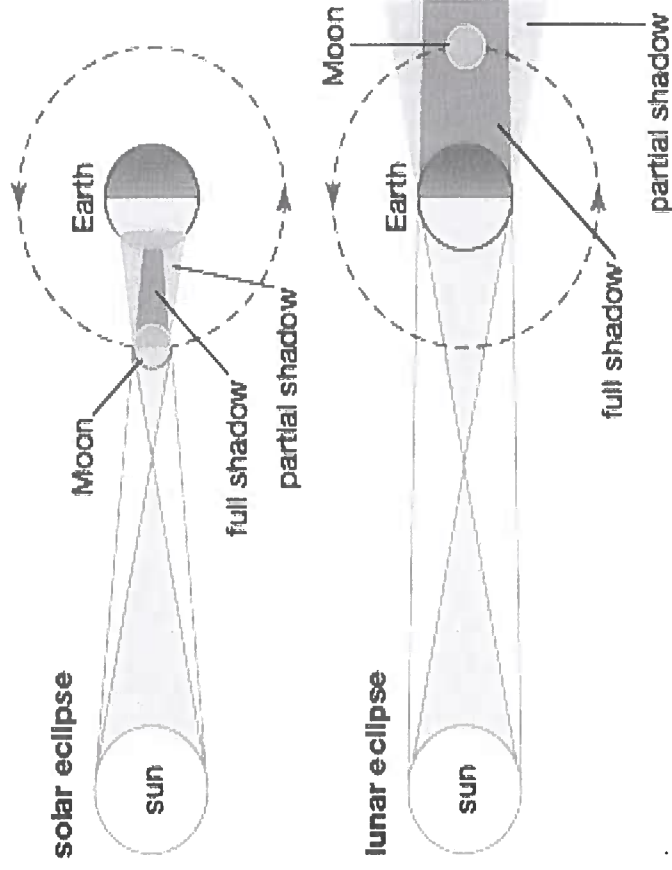
Objects in the solar system are constantly moving in **orbits**. This orbital path never changes.

The Earth orbits the Sun. The Moon orbits the Earth.

Sometimes, for a short period of time, the Moon is positioned between the Sun and the Earth. At this time, the Moon blocks the Sun's light from reaching the Earth, causing a shadow on the Earth. This is called a **solar eclipse**.

Sometimes the Earth is positioned between the Sun and the Moon, causing a shadow on the moon. This is called a **lunar eclipse**.

Key Terms	Definitions
Season	The four periods into which a year can be divided:
Axis	A real or imaginary line on which something rotates
Equator	An imaginary line drawn around the middle of the Earth that is equidistant from each of the poles.
Gravity	A force that exists between two objects with mass
Weight	The amount of downwards force acting on an object.
Mass	The amount of matter in an object, measured in grams or kilograms.
Geocentric Model	An out-dated idea about the universe in which the Sun, Moon, stars, and planets all orbited Earth.
Heliocentric Model	The new idea of the universe in which the Earth, Moon, stars, and planets all orbit the Sun.
Equation	Meaning of terms in equation
$W = m g$	Weight = mass x gravity



Y7 History Knowledge Organiser: The Break from Rome

1.1 The Protestant Reformation

Martin Luther and Protestantism

In the 16th Century, people became frustrated with the power of the Church. A German priest called **Martin Luther** wrote the **Ninety-Five Theses**, a letter which complained about the Church.

In particular, **Luther** argued that the sale of **indulgences** was **corrupt**. He also said that the **Pope** should not be respected because he wasn't mentioned in the **Bible**. He also argued that **Bibles** should be translated from **Latin** so that everyone could read them.

Luther's alternative form of Christianity was known as **Protestantism**. The old religion of the **Pope** became known as **Catholicism**. The change from **Catholic** to **Protestant** was known as the **Reformation**.

Henry VIII 1509-47

Henry VIII became King of England in 1509. He was athletic, intelligent, and very religious. In 1519 he wrote a public letter to **Luther** which defended the Catholic Church.

In 1521, the **Pope** gave Henry the title of **Fidei Defensor** - Defender of the **Faith** - in recognition of his defence of **Catholicism** against **Luther's** attacks.

1.4 Henry VIII and Thomas Cromwell

In 1532, **Thomas Cromwell** became Henry's main advisor. **Cromwell** was a devout Protestant and was responsible for the **Reformation** in England. Henry remained **Catholic** at heart.

1536-1540

The Dissolution of the Monasteries

Cromwell told Henry he would make him 'the richest prince in Europe'. This appealed to Henry because he needed money to pay for war with France.

Cromwell did this by shutting down **800 monasteries** and selling the land for **£1.3 million**.

1536

The Execution of Anne Boleyn

Cromwell was worried that Anne had more influence over Henry than he did.

He made up a rumour that Anne was having affairs with five different men.

Cromwell convinced Henry to believe the story. Henry ordered Anne to be **beheaded**.

1539

English Bibles

Cromwell himself had given **£400** for the printing of an English bible. **Cromwell** saw English bibles as a way it as a way to make England more Protestant.

Henry was also keen on an English Bible. The **Great Bible** made Henry look powerful.

1540

Marriage to Anne of Cleves

Anne of Cleves was a **Protestant** princess from Germany. **Cromwell** hoped that she would influence Henry to make England more **Protestant**.

Cromwell ordered a painting of **Anne of Cleves**. Henry saw the painting and fell in love.

However, when **Anne** arrived in England she did not look like the painting. Henry refused to marry Anne and fell out with **Cromwell**.

1540

The Execution of Thomas Cromwell

Henry believed that **Cromwell** was making England too Protestant.

Henry began to reopen some **monasteries** and introduced the **Act of Six Articles**, which brought back some **Catholic** beliefs.

In 1540, Henry ordered **Cromwell** to be beheaded.

1.2 Religious Beliefs

Who should be head of the church?	Catholics	Protestants
What language should the Bible be in?	The Pope	The Monarch
How should churches be decorated?	Latin	English
What did you need to do to get to heaven?	Highly decorated, stained-glass	Plain and simple
Were monasteries important?	Good works, like charity	Just believe in God
	Yes	No

1.3 The Break with Rome

In 1532, Henry VIII broke with Rome. This meant that England was no longer a Catholic country.

Henry wanted an heir	Anne Boleyn	Religion	Power and Money
Henry had been married to Catherine of Aragon for over 20 years. He was annoyed that they hadn't had a son. He needed a male heir to carry on the Tudor dynasty.	In 1527, Henry VIII fell in love with Anne Boleyn . She insisted that Henry should annul his marriage to Catherine and marry her, unlike her sister, who had agreed to be Henry's mistress.	Anne gave Henry a copy of William Tyndale's Obedience of a Christian Man which argued that kings should run their own churches, rather than listen to the Pope . This persuaded Henry that he could break from Rome and set up his own Church: the Church of England .	The Church owned a vast amount of land and over 800 wealthy monasteries . If Henry made himself head of the church he would get this land.
Henry felt that the marriage was cursed because Catherine had previously been married to Henry's older brother, Arthur .	However, the Pope refused to let Henry annul his marriage to Catherine. Catherine also defended herself.	Henry also liked the idea of being the most powerful person in the country. He named himself Supreme Head of the Church .	Henry also liked the idea of being the most powerful person in the country. He named himself Supreme Head of the Church .

VOCABULARY

Annul	Cancel a marriage
Beheaded	Had their head chopped off
Church of England	Henry's Protestant Church that was not part of the Catholic Church
Dissolution	Shutting down
Indulgences	Certificates that forgave your sins
Mistress	A lover who is not married to you
Monasteries	Wealthy church buildings where monks lived
Pope	The head of the Catholic church
Reformation	The split in Christianity between Catholic and Protestant

Y7 History Knowledge Organiser: The Reformation in England

1.1 Religious change under the Tudors

Religious laws in England changed regularly during the 16th Century as Henry VIII's heirs had very different religious beliefs

Cuius Regio, Euius Religio

- 16th Century Europe followed the principle of **Cuius Regio, Euius Religio** (whoever's country, their religion)
- This meant that the religious **doctrine** in a country followed the beliefs of the monarch

1509 Henry VIII • Henry VIII replaced the Pope and set up the Church of England

1547 • The monasteries were dissolved

• A new English bible was printed

• Some Catholic beliefs were reintroduced in the 1540s

1547 Edward VI • Henry's son Edward was a Protestant and use a new English Book of Common Prayer in services

• Altars and stained glass windows were removed from churches

1553 Mary I • Henry's daughter Mary was a Catholic

• Mary led a counter reformation by re-introducing Latin bibles and returning power to the Pope

• Protestants were forced to flee into exile or were burnt at the stake as heretics

1558 Elizabeth I • Henry's youngest daughter Elizabeth introduced the doctrine of Anglicanism

• Anglicanism was a 'Middle Way':

- some Protestant doctrine such as English bibles and church services
- some Catholic doctrine such as decorated churches

1.2 Town and Country

- Life in the towns meant people were more likely to be Protestant:
- Higher levels of literacy and education, More printing presses, Good connections to other towns
- Life in the countryside meant people resisted change:
 - Remote and mountainous areas were not well connected
 - Levels of education were very low
 - Tradition and conservatism were important
 - Monasteries had played an important role

1.3 Trade and Migration

- The Netherlands was a hotbed of Protestant belief
- London and the southeast became more Protestant as these areas were well connected to the Netherlands
 - Merchants travelled to trading centres such as Antwerp to sell goods such as cloth and picked up new religious ideas
 - Migrants from the Netherlands settled in cities such as Norwich, bringing their religion with them
- The North and West traded less with the Netherlands

1.4 Education and Literacy

- More educated and literate people became Protestants
 - Protestantism was based on reading the Bible in English
 - Oxford and Cambridge became hotbeds of Protestantism
 - Wealthy people were more likely to be literate
- Uneducated and illiterate people remained devout Catholics because they relied on images and decorations in church
 - Poorer people were more likely to be illiterate
 - In areas like Wales and Cornwall people opposed Protestantism because it threatened their local language

VOCABULARY

Altars	Decorated tables used in Catholic church services	Exile	Being forced to stay out of the country
Anglicanism	The 'Middle Way' of Elizabeth I	Heretic	Someone with illegal beliefs / insulting term for Protestant
Book of Common Prayer	The book that contains readings etc for church services	Hotbed	An area with particularly strong beliefs
Burnt at the stake	Executed by being burnt alive	Literacy	The ability to read and write
Church of England	The Protestant Church set up by Henry VIII	Literate/illiterate	Able to read and write/Not able to read and write
Conservatism	Wanting to keep things as they have always been	Migrants	People who moved to another country permanently
Counterreformation	The attempt to bring back Catholicism	Monasteries	Wealthy church buildings that provided charity/healthcare
Devout	Strong (belief)	Printing presses	New inventions that allowed text to be printed and spread
Dissolved	Shut down (monasteries)	Stained glass	Colourful glass in churches presenting bible stories etc
Doctrine	The set of beliefs taught by the Church	Tradition	How things have always been

Y7 History Knowledge Organiser: The English Civil War

Timeline

- 1600 King Charles was born
- 1629 Charles became King and closed down parliament
- 1640 Charles summons parliament and then dissolves parliament again
- 1642 English Civil War starts
- 1644 Battle of Marston Moor
- 1645 Battle of Naseby, Charles surrenders and becomes prisoner
- 1647 Charles escapes and makes a deal with the Scottish leading to the second civil war
- 1649 Charles's trial leading to his executed



- Charles married Henrietta Maria, a French Catholic and sister to the King of France
- Charles caused war with the Scots by forcing them to use the English Prayer Book
- Charles appointed Archbishop Laud who immediately began to make several changes to the church to bring church services in line with Catholic style of worship
- Laud also decorated churches in a Catholic style



- Between 1625 to 1628, Charles lost wars against France and Spain so started to impose high taxes on English people
- Charles introduced Ship Money (a charge people had to pay in coastal areas living by the sea)
- Charles also made people pay a tax if they wanted to see certain goods
- Introduced more tax so he could send an army to Scotland to force the Scots to use the English Prayer Book



- King Charles believed Parliament was there to serve him
- Charles believed in the Divine Right of Kings (he was chosen from God and had the right to rule as he wished)
- King Charles did not like the idea of parliament having more power than him
- Decided to shut down parliament for 11 years. This period of time is known as personal rule.
- Charles would use courts to punish his opponents and execute whoever he wanted

KPI 3 Why was King Charles defeated?

Parliament support: Parliament had control in the South East of England. Parliament controlled areas which were rich in resources such as iron. This was important for weapon making and supplying an army. Parliament also controlled London which was a major centre of industry.

Navy: Parliament had control of the navy and controlled most of the major ports such as London, Plymouth and Bristol.

Financial issues: Royalists controlled the north and west of England. Rich men and country gentlemen fought for the king. The king had rich supporters but they ran out of money which meant his support was weak.

Prince Rupert and ineffective leadership: Prince Rupert was Charles' nephew. He was only 23 when the war began and was inexperienced. At the Battle of Marston Moor, Rupert made the mistake of thinking the parliamentarians would not attack and his army was disorganised. At the Battle of Naseby, the cavalry led by Rupert charged too quickly and were defeated.

Parliament's leadership and the New Model Army: Oliver Cromwell, a Puritan MP set up the New Model Army between 1644 and 1645. Cromwell was a highly respected soldier.

KPI 4 Cromwell and the New Model Army

• The New Model Army was based on a person's ability rather than on their position within society. Whereas, in the King's army you had to have a high social status (position) in order to be a high ranking officer in the army.

• Many men were Puritans who believed God was on their side; men would sing psalms (hymns) before battle.

• Soldiers were strictly trained and highly disciplined.

• Cromwell taught his cavalry to care for their horses and clean their weapons.

• Cromwell made his troops live according to a strict code of conduct and harshly punished anyone who broke his rules.

• All that training and discipline paid off at the Battles of Marston Moor (1644) and Naseby (1645).

KPI 1 King Charles and primary sources

Painting of Charles I, painted in 1632 by the Dutch artist Van Dyke (court painter).

- A blue sash was the sign of the Order of the Garter, a group of the 24 bravest men in England.
- On the coat of arms you can see three lions (the symbol of England) as well as the harp (the symbol of Ireland) and the upright lion (the symbol of Scotland).
- Coat of arms represent valour (courage) and bravery

Anonymous Dutch painting of the execution of Charles I, 1649 which was banned in England.

- Charles's severed head while spectators hurry to dip their handkerchiefs in royal blood. Charles's body was considered by many to be holy and it was believed royal blood could help heal people.

KPI 5 Why was Charles I executed?

Charles ignored Parliament and ruled at his own will	Charles abused his power	Charles restarted the war after being defeated
<ul style="list-style-type: none"> Charles had very strong beliefs about the Divine Right of Kings. Charles did not think that he should consult (discuss) with parliament on important decisions. Charles had ruled without Parliament for 11 years and taken the advice of a small group of people he trusted during his Personal Rule. Charles only caused Parliament back because he was short of money and then dissolved (ended) Parliament again because they refused to grant him any more money. He imprisoned MP's who criticised him 	<p>War with Scotland: Charles had caused war with Scotland by forcing them to use the English Prayer Book. The Scottish invaded England so Charles had to buy them off, paying the Scottish army a massive £850 a day.</p> <p>Ship Money: Several councils wrote to the King complaining that their local areas were being asked to pay too much. Charles reject their appeal which meant ordinary people felt overburdened with taxation. Some people were prosecuted (put on trial) for refusing to pay Ship Money.</p> <p>Religion: King Louis XIII of France (a strict Catholic) was fighting against Protestants. Against parliament's wishes, Charles sent a fleet of ships to fight against the Protestants on behalf of King Louis. Parliament criticised the King again which led to him dissolving (ending) parliament again.</p>	<p>Charles restarted the war after being defeated</p> <ul style="list-style-type: none"> In 1645 Charles surrendered to the Scots but the Scottish sold him to parliament for £400,000! Parliament offered King Charles a peace agreement but Charles refused to accept In 1647 Charles was handed over to the English as a prisoner and kept in the Isle of Wight. He then escaped and made a deal with Scotland. The Scots agreed to support Charles and invade England which caused a second civil war! Parliament won a series of battles against King Charles and the Scots and then decided to put the king on trial for treason against the nation.

KPI 6 Should King Charles have been executed?

- Out of 286 Members of Parliament, 240 thought Charles should be given another chance but were stopped from entering parliament by Cromwell's troops.
- This left 46 Members of Parliament to vote about what to do with the King.
- By 26 votes to 20, it was decided that Charles should be put on trial for treason
- A jury of 135 top lawyers and judges were chosen by the army and Cromwell to try him.
- The trial took place on Saturday 20th January 1649 in Westminster Hall, London.
- John Bradshaw was the man leading the trial
- Charles refused to plea innocent or guilty
- The court met without Charles and decided to write down a plea of 'guilty' and decided Charles was guilty of all charges.
- Charles was given his verdict on Saturday 27th January.
- The execution date was set for Tuesday 30th January. The death warrant was signed by 59 out of 135 judges... who then went off to pray

KPI 7: Was Charles a traitor or a martyr?

- John Bradshaw stated that 'Charles disloyally waged war against Parliament and his own people.'
- Bradshaw called Charles a 'traitor, a tyrant and an enemy of England.'
- King Charles believed he was a 'martyr to the people' and that he had been given right to rule from God and that parliament had no authority over the Divine Right of Kings.
- John Lilburne, a parliamentarian who fought in the English Civil War also believed that parliament had no right to take away the king's life and that parliament were no worse than murderers.

Civil War	A war between citizens of the same of the country
Cavaliers	People who fought for the king, also known as Royalists
Cavalry	Soldiers on horseback
Death warrant	A piece of paper ordering someone's execution
Divine Right of Kings	King was chosen from God so had power over everyone in his kingdom
Executed	To be killed by the government
Martyr	Someone who dies for their beliefs and is later celebrated
New Model Army	Set up by Cromwell. Disciplined and well trained.
Oliver Cromwell	Puritan MP. Parliamentarian who commanded the New Model Army.
Order of the Garter	Group of people who voted on the King's laws. The Members of Parliament were supposed to agree to all new laws and taxes.
Parliament	People who fought on the side of Parliament, also known as Roundheads.
Parliamentarians	Roundheads.
Puritan	A very strict Protestant
Roundheads	People who fought on the side of parliament
Royalist	People who found on the side of the King, also known as Cavaliers.
Personal rule	Ruling without parliament
Prince Rupert	The nephew of King Charles who led the royalist army
Ship Money	Ship Money (a charge people had to pay in coastal areas living by the sea)
Tax	Money you give to the government
Treason	Disloyalty to your country

PC SHE – Year 7 Topic 6 – Financial Decision Making

<p>Section 1: Key Terms:</p> <ul style="list-style-type: none"> • Algorithm: A computer rule that tracks what you do online to show you specific adverts or videos. • Budget: A plan to help you track your money and make sure you don't spend more than you have. • Current Account: A bank account used for everyday spending and receiving money. • Expenditure / Outgoings: The money you spend on things. • Fraud / Scam: A trick used by someone to steal your money or your personal information. • Gambling: Risking money on a game of chance (like a bet) hoping to win more back. • Income: The money you receive, such as pocket money or wages from a job. • Interest: Extra money a bank pays you for keeping your savings with them. • Loot Box: A virtual box in a game that contains a random item. You pay for it but don't know what's inside until it opens. • Needs: Essential things you must have to live, like food and water. • Savings Account: A bank account specifically for keeping money safe for the future. • Wants: Things you would like to have but do not need to survive, like new trainers. 	<p>Section 2: Saving and Budgeting</p> <p>Why Save? Saving money means you have cash for "unexpected" events, like a broken phone, or for a big goal you want to reach in the future.</p> <p>Types of accounts:</p> <ul style="list-style-type: none"> • Saving accounts: You can open a savings account yourself at 16. An adult can open a savings account for a child under 18. If you saved £10 a month for a year, at a yearly 1% interest rate, you should have £120.65 at the end of the year. • Current accounts: These help you to manage your day-to-day money, pay bills, receive incoming money. <p>Budgeting: Budgeting is the process of managing your money. It can be used to manage the balance between your income and your outgoings. It ensures that</p> <ul style="list-style-type: none"> - You have enough money to cover the necessities - You are spending on what really matters to you - You are putting money aside for the future <p>What influences our spending?</p> <ul style="list-style-type: none"> • Choices: Where we shop—like at a local small shop, a big supermarket, or a charity shop—is often decided by price, convenience, or how much we trust the brand. • Shops Competing: Shops often lower their prices to get more customers. While this is good for the shopper, it can sometimes be bad for the people who make or grow the products, like farmers. • Why We Buy: Our spending is often influenced by what we see in adverts, what our friends have, or how easy it is to buy something with "one-click" payments. 	<p>KPI3: Gambling</p> <p>Gambling is an activity that results in either a win or a loss. It is also known as betting, gaming or taking part in a lottery. All gambling is high risk – the chances of losing money are far greater than winning it.</p> <p>There are several sectors where gambling activities take place</p> <ul style="list-style-type: none"> • Arcades • Betting • Bingo • Casino • Lotteries • Gaming machines • Social gambling <p>Impacts of gambling:</p> <ul style="list-style-type: none"> • Spending more than they want on gambling • Struggle to find money for bills • Take out loans to cover gambling debts. • Extreme emotions or mood swings • Stopping their other hobbies • Difficulty sleeping • Feeling depressed or anxious.
<p>Section 1: Key Terms:</p> <ul style="list-style-type: none"> • Algorithm: A computer rule that tracks what you do online to show you specific adverts or videos. • Budget: A plan to help you track your money and make sure you don't spend more than you have. • Current Account: A bank account used for everyday spending and receiving money. • Expenditure / Outgoings: The money you spend on things. • Fraud / Scam: A trick used by someone to steal your money or your personal information. • Gambling: Risking money on a game of chance (like a bet) hoping to win more back. • Income: The money you receive, such as pocket money or wages from a job. • Interest: Extra money a bank pays you for keeping your savings with them. • Loot Box: A virtual box in a game that contains a random item. You pay for it but don't know what's inside until it opens. • Needs: Essential things you must have to live, like food and water. • Savings Account: A bank account specifically for keeping money safe for the future. • Wants: Things you would like to have but do not need to survive, like new trainers. 	<p>Section 4: Dealing with financial dilemmas</p> <p>Types of Financial Problems</p> <ul style="list-style-type: none"> • Fraud: Fraud is when a person dishonestly and deliberately deceives a victim for personal gain of property or money. • Identity theft: The act of a person illegally obtaining information about someone else. • Phishing: By pretending to be financial institutions or companies, thieves can send fake emails or pop-up messages to get you to reveal your personal information. You should never click on links and should avoid responding to these emails. • Vishing or phone scams: These typically involve fraudsters deceiving people into believing they are speaking to a member of a bank or a representative of another trusted company or agency. Usually, the fraudster will convince the person they have been a victim of fraud and will ask for personal and financial information to gain access to their account. • Smishing (SMS phishing): This is when someone tries to trick you into giving them your private information via a text or SMS message. Many people tend to be more inclined to trust a text message or an email and people are less aware of the security risks involved with click on links in a text message. <p>Support: If you are worried about money or gambling, talk to:</p> <ul style="list-style-type: none"> • A trusted adult • A teacher • Safeguarding/Pastoral: Mr Jones, Mrs Toulson, Mr Ogden, Mrs Jones, Mrs Loveridge. • Childline (0800 1111) 	<p>Section 4: Dealing with financial dilemmas</p> <p>Types of Financial Problems</p> <ul style="list-style-type: none"> • Fraud: Fraud is when a person dishonestly and deliberately deceives a victim for personal gain of property or money. • Identity theft: The act of a person illegally obtaining information about someone else. • Phishing: By pretending to be financial institutions or companies, thieves can send fake emails or pop-up messages to get you to reveal your personal information. You should never click on links and should avoid responding to these emails. • Vishing or phone scams: These typically involve fraudsters deceiving people into believing they are speaking to a member of a bank or a representative of another trusted company or agency. Usually, the fraudster will convince the person they have been a victim of fraud and will ask for personal and financial information to gain access to their account. • Smishing (SMS phishing): This is when someone tries to trick you into giving them your private information via a text or SMS message. Many people tend to be more inclined to trust a text message or an email and people are less aware of the security risks involved with click on links in a text message. <p>Support: If you are worried about money or gambling, talk to:</p> <ul style="list-style-type: none"> • A trusted adult • A teacher • Safeguarding/Pastoral: Mr Jones, Mrs Toulson, Mr Ogden, Mrs Jones, Mrs Loveridge. • Childline (0800 1111)

PCSHE – Year 7 ~~Textbook~~ – Citizenship

Section 1: Key words

- **Cabinet:** A small group of important MPs chosen by the Prime Minister to lead on specific jobs, like Education or Health.
- **Citizenship Action:** Doing something active to improve your community or stand up for a cause.
- **Constituency:** A specific local area that is represented by one MP.
- **Democracy:** A system where the public votes to choose who runs the country.
- **Dictatorship:** A system where one person has total control and the public does not get a vote.
- **Government:** The party or group of people currently running the country and making decisions.
- **House of Commons:** The part of Parliament where elected MPs meet to debate and vote on laws.
- **House of Lords:** The part of Parliament that double-checks the work of the House of Commons.
- **Liberties / Rights:** The freedoms and protections that every citizen is allowed to have by law.
- **Manifesto:** A document produced by a political party explaining what they will do if they are voted into power.
- **Monarch:** The King or Queen, who serves as the Head of State.
- **MP (Member of Parliament):** A person who has been voted for by people in a local area to speak for them in Parliament.
- **Opposition:** The political parties that did not win the election. Their job is to check and challenge the Government's ideas.
- **Parliament:** The place where the Government is held to account and where new laws are debated.
- **Prime Minister:** The person in charge of the Government.
- **Voting:** The act of choosing a person or party in an election, usually done at a polling station.

Section 2: How is the UK run?

- **Democracy:** The UK is a democracy. This means that the people who live here have a say in how the country is run by voting for leaders.
- **The Government:** These are the people currently in charge. They run public services (like the NHS and schools) and decide how to spend the country's money.
- **The Parliament:** This is where laws are made and the Government's work is checked. It has three parts:
 - a. **House of Commons:** Made up of **MPs** who are voted in by the public.
 - b. **House of Lords:** Members are not voted in; they are chosen for their experience or inherit their title. They check the laws made by the Commons.
 - c. **The Monarch:** The King or Queen. They have a formal role, such as signing off new laws to make them official.

Section 3: Voting and your voice

- **General Elections:** Every few years, people over 18 vote in a General Election. They choose an **MP** to represent their local area, called a **constituency**.
- **Political Parties:** These are groups of people with similar ideas about how to run the country (like Labour or the Conservatives). They write a **manifesto**, which is a list of promises they will keep if they win.
- **The Prime Minister:** The leader of the political party that wins the most seats in the House of Commons becomes the Prime Minister.
- **Your Influence:** Even if you are under 18, you can have a say by writing a letter to your local MP about issues that bother you in your town.

Section 4: Rights and Responsibilities

- **Liberties and Rights:** These are the basic freedoms that everyone in the UK is entitled to, such as the right to go to school, the right to be safe, and the right to have your own opinion.
- **Responsibilities:** Because we have rights, we also have duties. For example, if you have the right to be heard, you have the responsibility to listen to others.
- **Citizenship Action:** This means doing something to make a change. This could be signing a petition, joining a school council, or raising awareness for a charity.
- **British Values:** These are the core rules we live by in the UK:
 1. Democracy
 2. The Rule of Law
 3. Individual Liberty
 4. Mutual Respect and Tolerance

Year 7 Topic 4 What processes have shaped the UK?

Key words

- **Ice Sheet** : A mass of glacial ice more than 50,000 square kilometres (19,000 square miles).
- **Ice Age**: a long interval of time (millions to tens of millions of years) when global temperatures are relatively cold and large areas of the Earth are covered by continental ice sheets and alpine glaciers.
- **Tundra**: is an area of the world where the temperatures are so cold that there is a layer of permanently frozen ground below the surface.
- **Erosion**: materials are worn away
- **Glacier**: a sheet of ice that moves slowly down a river valley.
- **Glaciologists**: Earth scientists who investigate glaciers around the world.
- **Glaciated Valley**: a river valley widened and deepened by the action of glaciers
- **Ice Age**: a period of colder climate when ice sheets form on the land, causing a lowering of sea level
- **Ice Sheet**: huge mass of ice covering the landscape that moves very slowly.
- **Moraine**: frost-shattered rock debris and material eroded from the valley floor and sides, transported and deposited by glaciers.
- **Plucking** - where rocks are pulled from the ground when water freezes onto them
- **Freeze-thaw weathering** is a process of erosion that happens in cold areas where ice forms. A crack in a rock can fill with water which then freezes as the temperature drops. As the ice expands, it pushes the crack apart, making it larger.
- **Abrasion** - loose rocks carried in the glacier scrape along the ground like sandpaper
- **Deposition** - when a glacier retreats it drops the material it is carrying.
- **Transportation** - when a glacier moves material across large distances. It happens at the base, inside and on top of a glacier
- **Snout**: the end of the glacier where melting occurs.
- **Glacial Till**: the sediment deposited by a glacier

KPI 1 What was the British Isles like 20,000 years ago?

The last **ice age** began 110,000 years ago and ended 10,000 years ago. The British Isles were covered by an **ice sheet and tundra**. Today there are two ice sheets which cover most of Greenland and Antarctica. During the last ice age, ice sheets also covered much of North America and Scandinavia.

Animals, plants and people could not live on ice sheets but can live in tundra. For example the woolly mammoth. They had adaptations (changes in the body to suit a location) that meant they could survive in the extreme cold. Adaptations included having smaller ears to conserve heat, being covered in fur to keep them warm.

KPI 2 Where is all the ice?

A glacier is a slowly moving mass of ice. They cover about 10% of the Earth's surface in cold regions such as Antarctica and the Arctic as well as in high mountain ranges such as The Alps and Himalayas.

They form in locations where average annual (yearly) temperatures are near freezing point. Large amounts of snow will fall during winter months. Temperatures throughout the year are not high enough to melt the previous winter's build-up of snow. Each year, new layers of snow bury and compress the previous layers turning them into ice.

Glaciers are found in upland and mountainous areas because the temperatures are low enough here for glacial ice to form

Altitude – height above sea level – it is often measured in meters

As altitude increases temperature decreases

Glaciers are also found in higher latitudes – these are places far from the Equator

Latitude – distance from the Equator measured in degrees
It is colder at higher latitudes because the Sun's heat is spread out over a larger area meaning glacial ice can form

KPI 3 How do glaciers work?

Glaciers erode landscapes in two ways:

1. **Plucking** takes places where loosened blocks of bedrock become frozen to the base of the glacial ice. As the ice moves forward, the rock frozen to the ice moves with it and is plucked from the bedrock.
2. As the ice moves forward, these rocks scrape against the bedrock, wearing it away. This is called **abrasion**. It leaves behind smooth, polished rock surfaces which have scratches on them called striations.

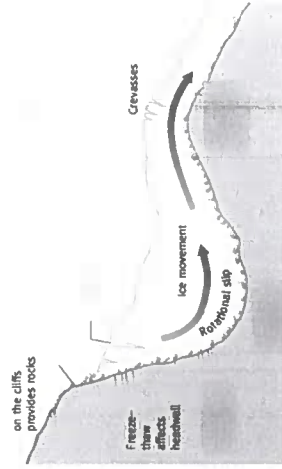
As glaciers transport material it carries large amounts of rock, this debris is called **moraine**. As the ice melts, the material it was transporting is called **deposition**.

KPI 4 How do corries form?

An armchair shaped hollow found on the side of a mountain where a glacier can form

Corrie Formation:

1. Snow collects in the sheltered hollow on the side of a mountain.
2. More snow is added which compacts down to form ice.
3. The back of the corrie gets steeper due to freeze-thaw and plucking
4. The base becomes deeper due to abrasion
5. As the glacier gets heavier it moves down hill through rotational slip
6. There is less erosion at the front of the corrie forming a lip
7. After the glacier melts a lake forms in the hollow called a corrie lake or tarn



Year 7 Topic 4 What processes have shaped the UK?

KPI 5 – How do pyramidal peaks and aretes form?

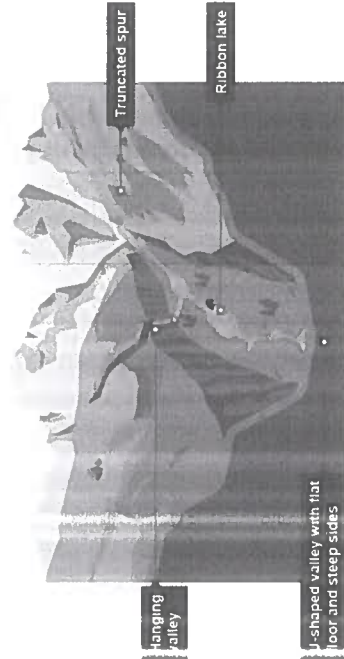
When two corries develop side by side, the glaciers erode the rock between them leaving a knife-like edge: called an arete. When three or four corries develop around a mountain top, a steep pointed peak is formed – this is called a pyramidal peak.



KPI 6 How do hanging valleys form?

U-shaped valleys: Glaciers change V-shaped valleys into U-shaped valleys. The ice has great erosive power and removes any obstacles.

Hanging valleys: Once the ice melts and the river flows once more, the streams and their small valleys are left 'hanging' above the new U-shaped valley floor. This can create waterfalls.



KPI 7 How do glaciers transport and deposit material?

At the **snout** of the glacier, the ice melts, so this material can no longer be carried by the ice. It is therefore dumped or deposited. This rock debris is called **glacial till**. It is a random mixture of boulders, rocks, sand and clay.

What are the different types of moraine?

- **Terminal moraines** are found at the terminus or the further (end) point reached by a glacier.
- **Lateral Moraines** are found along the sides of the glacier.
- **Medial moraine** are found at the junction between two glaciers
- **Ground moraines** are disorganized piles of rocks of various shapes, sizes and of differing rock types

KPI 8 What landforms are formed by glacial deposition?

Features of **glacial deposition**

- **Erratic's:** Very large boulders that have been carried a long way by the glacier. When the ice melts, the boulders drop. They are formed from a very different rock from the bedrock they are deposited on.
- **Drumlin:** Smooth, egg-shaped hills that are 100-800m long, and 25m-100m high. They are usually found in groups. They are formed from glacial till, deposited by the glacier while the ice is still moving. The end facing the glacier often has a steeper slope than the other end.
- **Moraine:** Debris (*anything broken down*) that has been carried by the glacier, forming long ridges, made up of till. The moraine is given different names depending on where on the glacier it is deposited.
- **Glacial Till:** The debris that has been transported by the glacier is deposited where it melts. It is made up of a mixture of rocks and clay.
- **Outwash plains:** As the glacier melts, streams flow away from the glacier. These powerful streams are swollen by meltwater. They transport large amounts of debris from the glacier snout. The largest and heaviest debris is difficult to move so it is left as a moraine. The lightest clay-sized particles are carried furthest away from the snout, eventually deposited as outwash plains.

Year 7 Topic 5 Knowledge Organiser – Is there a global population crisis?

KPI 1 – Definitions

- Population:** The number of people living in a particular place.
- Birth rate:** The number of births per 1000 of the country's population each year.
- Death rate:** The number of deaths per 1000 of the country's population each year.
- Life expectancy:** How long the average person lives for.
- Natural Increase:** The difference between the birth rate and death rate.
- Underpopulated:** When a country doesn't have enough people to make use of the resources and technology available.
- Overpopulated:** When a country has too many people and not enough resources to maintain a reasonable standard of living, which slows down development.
- Incentives:** a thing that motivates or encourages someone to do something.
- Ageing population:** Where the median age of the population is higher.
- Youthful population:** Where the median age of the population is lower.
- Migrant:** Someone who moves from one place to another.
- Voluntary migrants:** People who choose to move.
- Forced migrants:** People who have no choice but to move due to war or natural disasters.
- Push factors:** Things that make people want to leave.
- Pull factors:** Good things that attract them to a new place.
- International Migration:** Migration between countries e.g., El Salvador to US
- Internal Migration:** Migration within one country e.g., New York to L.A
- Temporary Migration:** Migration for a limited period, this might only be for a few weeks or even several years.
- Permanent Migration:** Migration with the intention of staying forever.
- Forced Migration:** When people are forced to migrate, often because their life is in danger.
- Voluntary Migration:** When people freely choose to migrate e.g., for better weather, jobs or education.
- Economic Migration:** Migration for work e.g., better salary or promotion
- Seasonal Migration:** Migration just for a particular season e.g., the ski season or the harvesting season.

KPI 2 – Population Explosion

Globally, there have been reduced death rates and increased birth rate. Recently the world's population hit 8 billion people.

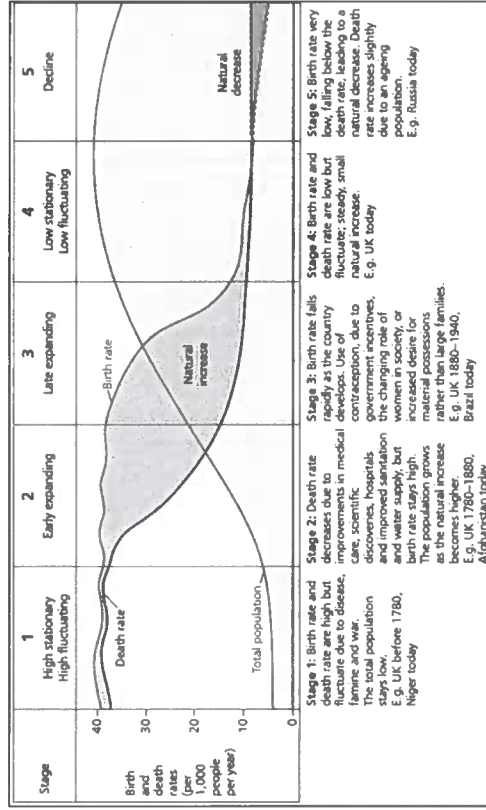
Reasons:

- Improvements in medicine (e.g. vaccinations and free healthcare systems)
- Improvements in standards of living (e.g better shelter)
- Greater access to food
- Greater access to water
- Reduced infant mortality rates.

KPI 6 – How can we describe the structure of a population?

Demographic transition model – shows a generalised picture of population change in the countries studied (shown in the diagram to the right).

Population pyramids – Used to analyse the structure of populations. It shows the age and gender distribution of a given population. The shape of the pyramid depends both on the number of people in each age group and the proportion of males and females.



KPI 3 – Population density

Population density is the number of people per km².

When an area has a low population density, we say it is **sparsely populated**. When an area has a high population density, we say it is **densely populated**

Factors that influence population density?

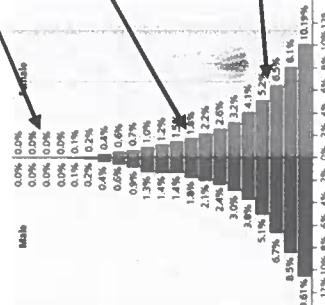
- Climate** – rainfall, temperatures.
- The relief (shape) of the land.**
- Natural resources**
- Access to jobs**
- Transport links**

KPI 4 – How can we describe the structure of a population?

If there is a narrow top, it shows there is a high death rate and low life expectancy.

A population pyramid of this shape suggests a country is an LIC, in stage 2/3 of the Demographic Transition Model.

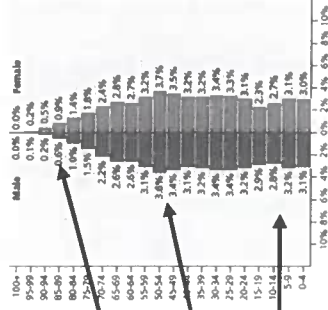
If there is a wide base, it shows there is a high birth rate.



If there is a wider top, it shows there is a low death rate and high life expectancy.

A population pyramid of this shape suggests a country is an HIC, in stage 4 of the Demographic Transition Model.

If there is a small base, it shows there is a low birth rate.



Year 7 Topic 5 Knowledge Organiser – Is there a global population crisis?

KPI5 – Ageing populations
An ageing population is where the median age of the population is higher. Ageing populations are more common in HICs such as the UK and Japan.

Causes:

1. **Longer life expectancy** due to better healthcare and a decreasing death rate.
2. **Falling birth rate** due to more readily available contraception and a smaller birthing population.

Positive impacts:

1. Many elderly people pass on their experience and knowledge.
2. Some may be wealthy, having lots of leisure time and therefore are good consumers by adding money into the economy.
3. Many fulfil childcare roles for their grandchildren.
4. Many retired people do voluntary work in schools and for charities.

Negative impacts:

1. The bill for social care is also increasing as the elderly sometimes need outside help/care.
2. There are decreasing numbers of economically-active people in the population.
3. Fewer people of working age means a lower number of workers and a shrinking tax base.
4. The increasing number of very old people have put a strain on healthcare services.
5. The UK is facing a pensions crisis where there is less money to cover the increasing pension demands of a population.
6. Housing problems develop as there is an increase in demand for more retirement homes. These are expensive and will increase taxes paid by the working population.

KPI6 – Growing population and resources

Resources are any natural material that people need and value.

There are two theories for how population growth will impact resources in the future.

Theory 1: Malthus - He believed that population grew **exponentially** (doubling at each stage - 1:2:4:8:16, etc.) but food production grew **arithmetically** (Adding one unit at each stage - 1:2:3:4:5, etc.).

This meant that population would eventually outstrip food. At this point, the population would decrease through starvation.

Theory 2: Boserup – she believed humans would invent solutions to the problems an increasing population causes for example improving farming.

KPI7 – Population Control

Limiting population growth: China

One Child Policy: The one-child policy was a program that limited most Chinese families to one child each. It was implemented by the in 1980, and it ended in 2016. The policy was created to address the rapid growth rate of the country's population. It was enforced by a variety of methods, including financial incentives for families in compliance, contraceptives, forced sterilizations, and forced abortions.

Consequences of the One Child Policy:

- After the one-child policy ended in 2016, China's birth and fertility rates remained low, leaving the country with a population that was aging rapidly and a workforce that was shrinking
- Because sons were generally favoured over daughters, the sex ratio in China became skewed toward men

The policy was abolished on the 1st January 2016, and replaced with the two-child policy and in 2021 all married couples could have up to three children. To allow for economic growth.

Encouraging population growth: Russia

Causes of the problem:

- Women in Russia have careers and put off having children
- High death rate due to high levels of heart disease and high smoking rates.

Government incentives: In 2007 the government introduced a programme to pay \$11,000 to mothers who have more than one child.

KPI8 – Migration

Migration is the movement of people from one place to another.

- **Immigration** is the movement of people into a place and **emigration** is the people leaving a country
- People make a decision to move based on push and pull factors.
- USA receives the most international migrants (around 46.6 million). Germany has around 12 million migrants.

Examples of Push factors

Lack of facilities, war, high crime rates, drugs use and corruption, poor educational opportunities, drought, isolation etc.

Examples of Pull factors

Quiet, cheaper housing, larger gardens, high employment rates, low crime rate, high quality of life, good availability of services.

KPI9 – Poland: an example of migration

Poland joined the European Union (EU) in April 2004. The EU allows free movement of people (migration) between its member countries and allows people to move for work. The Government estimates almost 1,000,000 Polish immigrants now live in the UK.

Push factors of Poland:

- 20% unemployment rate in Poland
- Youth employment was 40%
- Healthcare in Poland is not free

Pull factors of UK:

- Job opportunities in UK – not as much unemployment
- Desire to live abroad and learn the English language
- Countries in the EU were granted free healthcare in UK

Benefits:

- More highly skilled working in the UK
- Payment of taxes - £2.5 billion each year
- Offsetting UK's ageing population

Problems faced by the Polish people after Brexit:

- Increasing hostility
- Uncertainty about if they can stay in UK

Knowledge Organiser - Year 7, Summer 1 - How can we uphold our human rights?

Key words	Definition	KPI1: Prejudice and Discrimination	KPI2: Gender Equality
Human Rights	The 30 rights we are all legal given because we are human	<p>We all experience prejudices in our life. This is where we form opinions about things and people before we have even met or experienced them. These views come from places such as TV, social media, family, friends and the news. Sometimes these prejudices are positive and sometimes they are negative. Negative prejudices can sometimes lead to us treating people badly simply because of who they are. This is known as discrimination. This goes against our human rights as we have the right to be treated equally and fairly by everyone.</p>	<p>Gender equality refers to when men and women are treated the same. No country in the world truly has gender equality, although most of them are working to try and achieve this. The reason for this is because historically men and women were believed to have very different roles. Men were supposed to be strong, unemotional and go to work. Women were meant to be obedient, emotional and better for staying at home and raising children. These views came from false scientific beliefs and religious teachings. However, today we understand men and women are not that different and have laws that protect them from being treated differently.</p>
Prejudice	Forming an opinion about someone before really knowing anything about them		
Discrimination	Treating someone differently because of their characteristics (who they are)		
Equality	Treating everyone the same		
Gender Equality	Treating men and women the same		
Racism	Treating someone negatively due to the colour of their skin	<p>KPI3: Racism</p> <p>Racism refers to when you discriminate against someone or hold negative beliefs about them due to their race (Colour of their skin). These negative views about people often come from false historical examples, TV, Social Media, family, friends or the news.</p> <p>Racism has reduced in the UK over many years but is not entirely gone. The Equality Act of 2010 does protect people against racism and racist comments or actions are a criminal offence.</p>	<p>KPI4: Human Sexuality</p> <p>Sexuality just refers to who you are attracted to. Heterosexual people are attracted to the opposite gender to themselves e.g. a girl that is attracted to a boy. Homosexual people are attracted to the same gender as themselves e.g. a girl that is attracted to another girl. Your sexuality is something you are born with - it is not a choice.</p> <p>Throughout history people who have been seen to have the 'wrong' sexuality have faced discrimination. Today there are laws that try to protect them against this.</p> <p>Sometimes people have these negative views because of religion, social media or family.</p>
Sexism	Treating someone differently due to their gender		
Sexuality	Who you are attracted to		
Heterosexual	Being attracted to a person of the opposite gender		
Homosexual	Being attracted to a person of the same gender		
Sin	Something that is considered to be wrong in the eyes of God		

Knowledge Organiser - Year 7, Summer 2 - Buddhism: Why do we suffer?

Key words	Definition	KPI1 and 2: Introduction and life of the Buddha	KPI3 and 4: Karma and Reincarnation
Buddha	'Awakened one' - Someone who understands the world around them and sees things as they truly are.	Buddhism is a religion focused on reducing suffering in life. They follow the teachings of a man known as Siddhartha Gautama - also known as the Buddha. They try to reduce suffering in a number of ways and follow key teachings such as:	Karma is the idea that all our actions have a value. Some actions are positive and help those around us. These give us skillful (positive) karma. Others are negative and cause harm to those around us which gives us unskillful (negative) karma.
Dukkha	Suffering	<ul style="list-style-type: none"> - 5 Moral Precepts: 5 Rules of things they should avoid - Metta: Loving kindness - Karuna: Compassion 	Buddhist believe that when we die we will be reborn into another living being. If you live a good life and have lots of skillful karma you will be reborn as something good like a human and will be closer to enlightenment. If you live a bad life and cause harm you will be reborn as something non-human and be further away from enlightenment.
Enlightenment	Freedom from the cycle of birth, death and rebirth. End of suffering.	They Buddha was born a prince and only began his journey to end suffering after seeing the four sights of old age, sickness, death and a holy man. He then lived as an ascetic before finally finding the middle way and achieving enlightenment.	Buddhists want to escape being reborn as they believe all life comes with suffering.
Samsara	Cycle of birth, death and rebirth that we are all stuck in.		
Karma	Value of your actions		
Tariha	Craving - The main cause of suffering		
Reincarnation	Being reborn again after death as another living thing	KPI5: 4 Noble Truths	KPI6: Eightfold Path
Eightfold Path	The eight things Buddhists believe we should all try and do to reach enlightenment	The Four Noble Truths are the four things Buddhist believe to be true about life.	The Eightfold Path is something Buddhists can follow in order to try and bring them closer to enlightenment.
Four Noble Truths	The four things Buddhists believe are true about life.	<ol style="list-style-type: none"> 1. Dukkha: We all suffer in life 2. Suffering is caused by craving (Tanha) 3. We can end suffering 4. We can end it by following the eightfold path. 	<ol style="list-style-type: none"> 1. Right Action 2. Right View 3. Right Concentration 4. Right Speech 5. Right Intention 6. Right Mindfulness 7. Right Livelihood 8. Right effort.
Asceticism	Living with only the basics and nothing more		
Sangha	Buddhist Community		

Year 7 French Term 3 – School / Holidays

SB9	Mon école s'appelle ... c'est un grand collège	My school is called ... it's a big secondary school
	Mon école s'appelle ... c'est un lycée	My school is called ... it's a sixth form
	Dans mon collège il y a beaucoup d'étudiants	In my school there are lots of students
	Dans mon lycée nous avons plein de cours	In my sixth form we have plenty of lessons
	Dans mon collège il est interdit d'utiliser son portable en classe	In my school it's forbidden to use our mobile in class
SB10	Le lundi j'étudie l'histoire à neuf heures et quart	On Mondays I study history at quarter past nine
	La semaine dernière j'ai étudié le sport à neuf heures et demie	Last week I studied sport at half past nine
	Le mois prochain je vais étudier les sciences à dix heures moins le quart	Next month I am going to study science at quarter to ten
	je pense que c'est utile	I think that it is useful
	à mon avis c'était pratique	In my opinion it was practical
SB11	Normalement je vais en Amérique avec mes parents	Normally I go to America with my parents
	Quelquefois nous voyageons en voiture parce que c'est confortable	Sometimes we travel by car because it is comfortable
	Souvent je reste dans un camping au bord de la mer	Often I stay in a campsite at the seaside
	S'il fait beau je fais du tourisme au centre-ville	If it's nice weather I do tourism in the city centre
	S'il fait chaud nous faisons de la natation à la piscine	If it's cold we do swimming in the pool
SB12	Si j'avais l'occasion j'irais en Asie avec mes copains	If I had the opportunity I would go to Asia with my friends
	Si je pouvais je voudrais voyager en avion privé	If I could I would like to travel by private plane
	Si je devais choisir je passerais mes vacances près de la plage	If I had to choose I would spend my holidays near to the beach

SB12	Si je pouvais je resterais dans un château	If I could I would stay in a castle
	Si j'avais le temps je voudrais aller à Québec avec ma famille	If I had the time I would like to go to Québec with my family

MFL key classroom language:

Example of a French LSQ:

<p>Term 3.1 - School</p> <p>Key term: Adjectival Agreement</p> <p>Definition: When an adjective matches in number and gender.</p> <p>Example: J'étudie les sciences parce que c'est utile (I study science because it's useful)</p>	<p>Term 3.2 - Holidays</p> <p>Key term: Time phrase</p> <p>Definition: a word or phrase that tells us when and how often something happens.</p> <p>Example: Souvent je vais en Allemagne (Often I go to Germany)</p>	<p>Answers- Test yourself</p> <p>1. Je joue au netball avec mes amis x</p> <p>2. Je joue au netball avec mon équipe ✓</p> <p>3. Ma meilleure amie s'appelle yeux/verts et bruns cheveux ✓</p> <p>4. Ma meilleure amie a les yeux/verts et cheveux/blonds ✓</p> <p>5. J'ai deux chats ✓</p> <p>6. J'ai deux chiens ✓</p> <p>7. Pour le déjeuner je mange des œufs et du café x</p> <p>8. Pour le petit déjeuner je prends des œufs et du café ✓</p> <p>9. J'habite en Angleterre dans le sud-ouest ✓</p> <p>10. J'habite dans le sud-ouest de l'Angleterre ✓</p>
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Year 7 Spanish Term 3 – School and Holidays

SB 9	My school is called ... it's a big secondary school	Mi colegio se llama ... es un colegio grande
	My school is called ... it's a sixth form	Mi instituto se llama ... es un bachillerato
	In my school there are lots of students	En mi insti hay muchos estudiantes
	In my school we have few subjects	En mi colegio tenemos pocas asignaturas
	In my school it's forbidden to use our mobile in class	En mi colegio está prohibido usar su móvil en clase
	On Mondays I study IT at quarter past nine	Los lunes estudio la informática a las nueve y cuarto
	Last week I studied geography at half past nine	La semana pasada estudié la geografía a las nueve y media
SB 10	Next month I am going to study science at quarter to nine	El mes próximo voy a estudiar las ciencias a las nueve menos cuarto
	I think that it is useful	pienso que es útil
	they were educational	fueron educativos
	Normally I go to France with my parents	Normalmente voy a Francia con mis padres
	Sometimes we travel by car because it is comfortable	A veces viajamos en coche porque es cómodo
	Often I stay in a campsite on the coast	A menudo me alojo en un camping en la costa
	If it's nice weather I do tourism in the city	Si hace buen tiempo hago turismo en la ciudad
SB 11	If it's cold we do swimming in the pool	Si hace frío hacemos natación en la piscina
	If I had the opportunity I would go to Asia with my friends	Si tuviera la oportunidad iría a Asia con mis amigos
	If I could I would like to travel by private plane	Si pudiera me gustaría viajar en avión privado
	If it were possible I would spend my holidays near to the beach	Si fuera posible pasaría mis vacaciones cerca de la playa

	If I were rich I would like to stay in a luxury hotel	Si fuera rico me gustaría alojarme en un hotel de lujo
	For my dream holidays I would like to go to Latin America	Para las vacaciones de mis sueños me gustaría ir a Latinoamérica

MFL key classroom language:

<p><u>Term 3.1</u></p> <p>School <u>Key term:</u> Adjectival Agreement <u>Definition:</u> When an adjective matches in number and gender. <u>Example:</u> Estudio las ciencias porque son útiles (I study science because it's useful)</p>	<p><u>Term 3.2</u></p> <p>Holidays <u>Key term:</u> Time phrase <u>Definition:</u> a word or phrase that tells us when and how often something happens. <u>Example:</u> A menudo voy a Alemania (Often I go to Germany)</p>
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Art - Year 7 - Project 2: Portraiture

<p style="text-align: center;">Big Idea 1: Technical Skill and Mastery</p>	<p style="text-align: center;">Big Idea 2: Art in Context</p>	<p style="text-align: center;">Big Ideas 3: Critical Thinking & Evaluation</p>
<p>Formal Elements</p> <p>Line A mark that connects two or more points. These can be straight, curved, short or long.</p> <p>Tone The lightness or darkness or something. For darker tones use a higher grade B pencil.</p> <p>Colour Colour is what you see when light reflects off something.</p> <p>Texture How something looks or feels e.g. fluffy, rough, smooth etc.</p> <p>Pattern A symbol, shape or colour that repeats. Man-made patterns are designed by humans, natural patterns are formed by nature.</p> <p>Shape/Form Shape is 2D e.g. rectangles. Form is 3D e.g. cubes, spheres etc.</p> <p>Primary Colours Colours that can't be mixed/ made from other colours e.g. red, yellow and blue.</p> <p>Secondary Colours Colours that can be made by mixing two</p>	<p>Portraiture The art of drawing or taking a photo of a person.</p> <p>Portrait A piece that depicts a human face or figure.</p> <p>Self-Portrait A piece that depicts your face or figure.</p> <p>Facial Features Eyes, Nose, Mouth</p> <p>Expression Expression means showing an emotion e.g. happy, sad, moody, shocked.</p> <p>Characterisation The distinct features of a person e.g. things in your portrait that show a trueness to the person's character.</p> <p>Identity The fact of being who you are.</p> <p>Teesha Moore (1963-present) Is an American artist who uses mixed media (use of lots of different materials) including paper, inks and pen. Her art is showcased in art journals that combine mixed media work and typography.</p>	<p>Analyse To break something e.g. an artwork into smaller parts so you can examine it more easily.</p> <p>In art we analyse a work by identifying the Formal Elements (Form), explaining how it is made (Process) and why it has been made (Mood).</p> <p>Evaluate To determine the quality of your work as well as your understanding of how you can develop and improve your work. This is often done during a project and at the end of a project.</p> <p>Annotate Providing written notes on your work as it develops as well as the process of writing notes during artist research.</p> <p>Curator An expert in charge of managing, interpreting and displaying art collections for museums and galleries. They now often curate spaces for digital spaces too.</p>

<p>primary colours. Red + Blue = Purple Yellow + Blue = Green Yellow + Red = Orange</p> <p>Tertiary Colours Colours that can be made by mixing a primary and secondary colour together e.g. Blue + Green = Turquoise.</p> <p>Complementary Colours Colours that are opposite each other on the colour wheel. Blue & Orange Red & Green Purple & Yellow</p> <p>Analogue Colours Colours that are next to each other on the colour wheel e.g. Red, red-orange and orange.</p> <p>Tints/ Shades Tint - Adding white to a colour to make it lighter. Shades - Adding black to a colour to make it darker.</p> <p>Blender Stick A paper stump that allows you to blend tones.</p> <p>Blending The smooth transition between tones.</p>	<p>Grid Method Splitting an image into smaller equal squares or rectangles to accurately copy an image. This method helps you draw in proportion.</p> <p>Outline A line, generally black, that goes around the outside of an image.</p> <p>Colour Blending Layer colours from light to dark using light pressure and circular motions.</p>	<p>Art Journals A journal kept by artists, often containing both words and sketches, and occasionally including mixed media elements such as collages.</p>	<p>Big Idea 4: Personal Expression & Reflection</p> <p>Personal Expression The act of using your imagination, thoughts and feelings to develop your artwork.</p> <p>Final Piece The final outcome to a project where you apply what you have learnt throughout the project e.g. theme, skills & techniques and links to artists.</p> <p>Links to Artists Using elements of artist work e.g. theme, colour or techniques in your own work.</p>
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Year 7 - Food Technology (Hospitality and Catering)

Hygiene, Health and Safety

To be ready to cook you need to:	Remove blazer, tie up hair, wash hands, put on an apron, remove watch, have clean nails
When should you wash your hands?	Before putting on your apron, when you changed jobs in the kitchen. After handling raw meat/fish, going to the toilet, coughing/sneezing/blowing your nose, touching rubbish, touching hair or face. Wash hands for 15-20 seconds, use soap and hot water.
The importance of washing up:	Washing up correctly is particularly important for food safety. Cutlery, pans, and dishes which are not washed and rinsed properly provide the ideal conditions for bacteria to grow. This could lead to food poisoning.
Stages of Washing Up:	Move dirty equipment to the dirty side of the sink, run a bowl of hot soapy water, knives are washed, dried, and put away first. Turn dishes and pans upside down on the draining board. Ensure you have a clean area to put your clean equipment. Dry up. Dirty and clean equipment can not get mixed up.

Prevention of Bacteria Growth

4 C's	<u>Chill</u> – foods to be kept in the fridge: dairy, protein, high risk foods eg, fish, meat, cooked rice or pasta, opened cans of soup, beans, couscous, lentils. / <u>Cook</u> – cook foods properly following all instructions / <u>Cross Contamination</u> – glossary / <u>Clean</u> – see above.
Food Temperature Control:	Temperature control is especially important when you buy, store, prepare and cook food. Food correctly stored will minimise the risk of food spoilage and food poisoning. Food poisoning can be caused by high-risk foods when they are stored in warm conditions for too long. Controlling the temperature of food will help keep your food safe until it is ready to be eaten.
Sources of Human Cross Contamination:	Hair, nose, cuts, wounds, ears, throat, clothing, jewellery. All of these things may contain bacteria. This bacteria can be spread to food should you touch them whilst preparing food.
Illnesses to be reported:	Sickness, Diarrhoea, Feeling Sick (Nausea), Colds and Coughs, Ear, Nose and Eye discharges, cuts, boils, septic areas of the body.

Eatwell Guide

<p>Eatwell Guide / Use the Eatwell Guide to help you get a balance of healthier and more sustainable food.</p>	<p>Carbohydrates: Rice, pasta, potatoes, bread, porridge, couscous – Choose wholegrain or higher fibre versions with less added fat, salt and sugar</p> <p>Fruits and Vegetables: Fresh, frozen, dried, canned – Eat at least 5 portions of a variety of fruit and vegetables every day.</p> <p>Protein: Chicken/poultry, fish – fresh and canned (tuna), meat, eggs, chickpeas, lentils, beans. Eat more beans and pulses, 2 portions of sustainably sourced fish per week, one of which is oily. Eat less red and processed meat.</p> <p>Dairy and Alternatives: Milk, yoghurt, cream, cheese, alternative milks: almond, rice, coconut, hazelnut, soya. Choose lower fat and lower sugar options.</p> <p>Fats: Choose unsaturated oils and use in small amounts – sunflower, olive, rapeseed.</p> <p>Sugary foods/crisps/ketchup – eat less often and in small amounts. 6-8 cups of water: lower fat milk, sugar-free drinks including tea and coffee all count.</p> <p>Men: 2500kcal per day/Women 2000kcal per day = All food and drinks</p>
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Glossary of Terms

<p>Glossary of Key Terms:</p>	<p>Food spoilage – when food deteriorates to the point that its quality is reduced or it can no longer be safe to eat.</p> <p>High Risk Foods – Ready to eat moist foods - pasta, rice, seafood, poultry, protein, dairy, sauces/gravy.</p> <p>Cross Contamination – the process by which bacteria or other microorganisms are unintentionally transferred from one substance or object to another, with harmful effects.</p> <p>Hob – top of the oven used to boil, simmer and fry.</p> <p>Grilling – to cook with heat that does not directly touch the food.</p> <p>Rubbing In – to combine fat with flour to make a breadcrumb-like consistency.</p> <p>Creaming – to combine sugar and soft fat (butter).</p> <p>Boiling – to bring water to 100 degrees C.</p> <p>Simmering – to heat liquids to just below the boiling point.</p>
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Year 7 Unit 2 Clear messaging in digital media

<p>Keywords</p>	<p>Search term Screenshot Annotate</p> <p>Landscape Portrait Heading Subheading Body text Brand Logo Content licence</p>	<p>The word or phrase someone enters into a search engine. A screenshot is a digital image that shows the contents of a computer display. Annotation is the process of adding comments to digital images to give additional context or to highlight specific elements. Landscape orientation refers to an image or print that is wider than it is tall. Portrait orientation refers to an image or print that is taller than it is wide. This is the section at the top which includes the title of the poster. A subheading is a mini-headline or text that is found under the main header. The main text of a document. A brand is a product, service or concept that is easily identified from other products, services or concepts. A design or symbol used by a company to advertise its products The content of a slide could be text, images, graphics, charts, and other visual elements. Permission granted by the owner of a piece of text, image, video etc for a user to use that element.</p>
<p>Lesson 1</p>	<p>Explain how to choose search terms relating to a particular issue.</p> <p>List key features of a good poster</p>	<p>Start by identifying the core concepts of your topic and then brainstorm synonyms, related terms, and variations for each concept. Clear Message, Concise Text, Target Audience, Strong Visuals, Color Scheme, Font Choice, Logical Flow, effective use of white Space</p>
<p>Lesson 2</p>	<p>Explain how to plan a poster to clearly convey a message.</p> <p>Describe how you would choose and download a suitable image.</p>	<p>Use the following points when designing your poster. Clear Message, Concise Text, Target Audience, Strong Visuals, Color Scheme, Font Choice, Logical Flow, effective use of white Space The image should be relevant, high quality, suitable for the audience and you must have permission to use it.</p>
<p>Lesson 3</p>	<p>Modify a logo using a graphic editing program</p> <p>List factors that would influence how text and graphics are combined on a slide.</p>	<p>Being able to edit a logo is useful because it allows the logo to be tailored to best suit the poster. Clarity and Conciseness, Audience Engagement, Emphasis, Font Choice, Text Size, Background and Contrast, Alignment and Spacing, Whitespace, Resources, Consistency, Accessibility</p>
<p>Lesson 4</p>	<p>Explain why it is important to use a consistent layout for a set of slides</p>	<p>Using a consistent layout makes it easier for the user to follow the slides and understand where to look for information on the slides.</p>

Lesson 5	<p>Describe factors to consider when searching for suitable text for slides. When selecting text for slides, prioritise clarity, conciseness, and audience engagement. Use simple language, and keep the text minimal. Ensure readability through font choice, size, and line spacing.</p> <p>Describe factors to consider when searching for suitable images for slides. When searching for images for slides, consider image quality, relevance to the content, consistency in style, copyright and licensing, and the message the image conveys.</p>
Lesson 6	<p>List key factors when planning the delivery of a presentation. Consider your audience, use simple language, engage your audience, memorise the presentation, work on your body language, practice, focus on your movements</p>

Year 7 Unit 3 - Networks

Lesson 1

What is a computer network?

Computer networking refers to interconnected computing devices that can exchange data and share resources with each other.

Explain how data is transmitted between computers across networks.

The Internet works by chopping data into chunks called packets. Each packet then moves through the network in a series of hops. Each packet hops to a local Internet service provider (ISP), a company that offers access to the network - usually for a fee.

Define 'protocol' and provide examples of non-networking protocols.

A network protocol is an established set of rules that determine how data is transmitted between different devices in the same network.

Lesson 2

What is a network interface card/controller?

A circuit board that is installed in a computer so it can be connected to a network.

What is a network cable?

To connect together different devices, you need cables. They have plastic plugs that connect into sockets on devices. The cable is made up of a number of copper wires. Data can be sent in both directions across a cable.

What is a Hub?

A piece of hardware used in computer networks used to connect multiple devices.

What is a router?

A device for connecting computers and other network capable devices together to form a network.

What is a server?

A computer that holds data to be shared with other computers. Servers require server software.

Keywords

Computer network - Two or more computers that are connected with one another to communicate data electronically.

Protocol - A protocol is a standardised set of rules for formatting and processing data.

Network cable - Network cables are used to connect and transfer data and information between computers

Hub - The most basic networking device that connects multiple computers or other network devices.

Router - A device that communicates between the internet and the devices in your home that connect to the internet.

Server - A server is a computer that provides various shared resources to workstations and other servers on a computer network.

What is a wired network?

Wired networks send data along cables.

What is a wireless network?

Wireless networks send data through the air using radio waves.

What are the different types of wireless technology?

Bluetooth

WiFi

3G (third generation wireless mobile)

4G (fourth generation wireless mobile)

5G (fourth generation wireless mobile)

What is bandwidth?

Bandwidth is the amount of data that can be moved from one point to another in a given time. Higher bandwidth = more data per second

What is buffering?

This is when data is arriving at your device at a rate that is slower than it is being processed
 Example: when you are watching a film on Netflix and it pauses, and you have to wait for a period of time before it starts again. This indicates that you may need more bandwidth.

What are the advantages of a wired network?

Advantages	Disadvantages
Faster connection (little to no interference)	Cables can be a trip hazard and look unpleasant
Higher bandwidth	More expensive and time-consuming to add devices, as each device needs cables
Better security	Devices are in fixed positions (no portability)

Bluetooth - Allows devices to communicate with each other without cables or wires, over a short range. (approximately 10 metres)

WiFi - Allows devices to communicate with each other without cables or wires, over a medium range. (approximately 50 meters)

3,4,5G - Allows devices to communicate with each other without cables or wires, over a long range. (approximately 500 meters)

Bandwidth - The maximum amount of data transmitted over an internet connection in a given amount of time.

Packet - A basic unit of data that's grouped together and transferred over a computer network.

Addressing - A unique identifier assigned to distinguish different devices on a network

Internet - A global network connecting millions of computers.

What are the advantages of a wireless network?

Advantages	Disadvantages
No trailing wires/no trip hazard	Lower bandwidth
It is quick and cheap to connect new devices	Wireless connections can be weakened by walls and ceilings
Allows portability	Less secure

Lesson 4

What is the internet?

The internet is a worldwide network of computers. It is the physical hardware, i.e. the cables, the routers, and other pieces of hardware used to connect devices together. Any device connected to the internet is part of this network, for example:

- Laptops
- Games consoles
- PCs
- Tablets
- Mobile phones

What do we use the internet for?

There are many uses of the internet. Below are some of the most common uses:

- Storing information (e.g. cloud storage)
- Entertainment (e.g. streaming films, videos, and music)
- Playing online games
- Communication (e.g. email)
- Playing online games
- Online shopping
- Social networking (e.g. Instagram)
- Viewing websites

IP addresses - An IP address is made up of 4 groups of numbers between 0 and 255, each separated by a full stop.

These are unique for every device on the internet.

Packet - A message is split into smaller packets of data which can then be transmitted and received in a network.

Transmission Control Protocol -

Splits the messages sent across the internet into smaller pieces called 'packets'. Assembles the packets in the correct order at the receiver end.

IP(Internet protocol) -

A protocol to route the packets across the internet. Each device on the internet has an IP address that uniquely identifies it from all other devices

What is TCP?

Transmission control protocol is a set of rules that will split a message into smaller pieces, called packets. It also controls how these packets are reassembled at the other end.

What is the IP (internet protocol)?

This is a protocol to route the packets across the internet. Each device on the internet has an IP address that uniquely identifies it from all other devices.

Lesson 5

Explain the difference between the internet, its services, and the World Wide Web.

The world wide web, or web for short, are the pages you see when you're at a device and you're online. But the internet is the network of connected computers that the web works on, as well as what emails and files travel across. Think of the internet as the roads that connect towns and cities together.

Describe how services are provided over the internet

There are a range of services provided by the internet. These include:

- World Wide Web
- Email
- Online gaming
- Instant messaging
- Voice over IP (VoIP) - audio calls
- Internet of Things (IoT)
- Media streaming (e.g. watching Netflix online)

Explain the term 'connectivity'

Connectivity is the degree to which various different items can be connected to the internet.

Explain the term IOT:

The Internet of Things means taking everyday 'things' and connecting them to the internet. It allows the advantages of the internet to go beyond computers and smartphones. These connected 'things' allow us to gather information, send information, or both.

Describe how internet-connected devices can affect you.

Privacy:

- IoT devices collect and share information about you, with or without your knowledge. This includes microphones, cameras, and GPS location.
- Companies may eventually be able to learn everything about you.

Security:

- IoT devices could be hacked
- Example: opening a car or house door remotely without your permission

Describe World Wide Web components and how they work together.

Lesson 6

Browsers: A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web. This includes Web pages, videos and images.

Servers: A server is a computer program or device that provides a service to another computer program and its user, also known as the client. In a data center, the physical computer that a server program runs on is also frequently referred to as a server.

Pages: A web page (or webpage) is a hypertext document on the World Wide Web. Web pages are delivered by a web server to the user and displayed in a web browser. A website consists of many web pages linked together under a common domain name. The name "web page" is a metaphor of paper pages bound together into a book.

URLs: In the same way that buildings and houses have a street address, web pages also have unique addresses to help people to locate them. On the Internet, these addresses are called URLs (Uniform Resource Locators).

HTTP: The Hypertext Transfer Protocol is an application protocol for distributed, collaborative, hypermedia information systems that allows users to communicate data on the World Wide Web.

HTTPS: Hypertext Transfer Protocol Secure (https) is a combination of the HTTP with the Secure Socket Layer (SSL)/Transport Layer Security (TLS) protocol. It is more secure than HTTP.

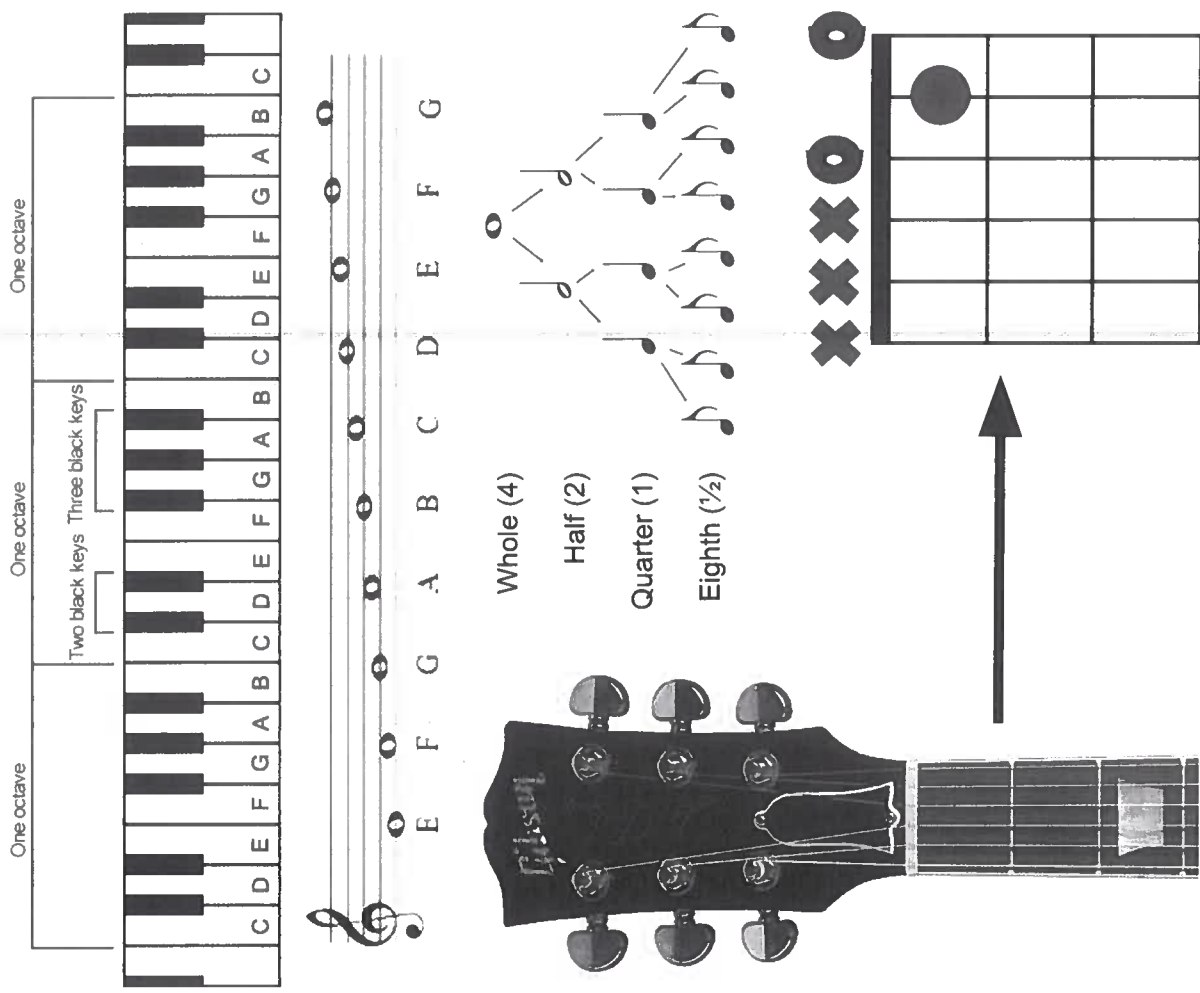
MUSIC - The Elements of Music

Key Terminology

- Conductor** - A person who directs the performance.
- Note** - A singular sound.
- Chord** - A group of three or more notes played at the same time.
- Harmony** - Different notes played or sung together.
- Melody** - A small arrangement of notes that make a tune.
- Scale** - A series of eight notes starting somewhere between A-G.
- Arpeggio** - When you play the 1st, 3rd, 5th, and 8th note of a scale one after each other.
- Rhythm** - The pattern of how notes are played.
- Beat** - The pulse or heartbeat of the music.
- Tempo** - The speed of the music.
- Dynamics** - The volume of the music.
- Octaves** - The jump between the same note going higher or lower on the piano (e.g. lower C to higher C).
- Pitch** - How high or low the notes are played.
- Guitar** - 6-stringed instrument. Can be electric or acoustic.
- Bass Guitar** - Low sounding 4-stringed instrument. Usually electric.
- Piano/Keyboard** - Percussion instrument made up of white keys and black keys.
- Drum Kit** - Percussion instrument made up of drums and cymbals.

Feedback Starters

Positives: *What I thought went well was...*
 Points for improvement: *It would be even better if...*



History

Greek Theatre is one of the oldest recorded styles of theatre that exist, it was at it's height between 500BC and 200BC. Performances would happen at the 'Festivals of Dionysus', where groups would compete against one another for the best performance. Dionysus was the Greek God of 'Wine and Pleasure'. The aim of these plays was to praise and appease the Gods.

The style of plays were broken down into 2 main categories; Comedy and Tragedy. If a play was a comedy it would only be a comedy and not any serious messages. Where as a tragedy play would have no humour in it. This not only made the plays easier to judge in the competition but ensured that audiences did not get confused as to what the play was about.

Greek playwrights believed in something called the unities of Drama. The unity of time - The play can only occur during a single 24 hour period. The unity of place - The play can only happen in the same place. The unity of Action - There is only one story in the play.

Facial Expressions - How can we

show emotions through our faces?
 Eye contact, eye brows, straight, emotions, gritting teeth, tense, relaxed, wrinkled, creased, staring, twitching.

Voice - How can we use our voice in performance? Tone, pitch, pace, emotion, volume, projection, dialogue, dialect, accent, intonation, whistling, SFX, interjection.

Posture - How can we use our bodies to help us create performance? Posture, blocking, positioning, front on, side on, emotions, age, open or closed.

Gestures - These are movements with meaning, how can we use them in performance? Hands, arms, speed, clicking, rubbing, waving, mannerisms.

Movement - How can movement be used to create performance? Speed, pace, acceleration, gait, mannerisms, special awareness, stage presence.

Conventions

Performances would happen in places called Amphitheatres. These were made from Limestone and acted as giant speakers. There were no microphones in these times and the Amphitheatres could seat up to 20,000 people. So the theatres were designed in a way that helped to project the actors voices.

There would only ever be three actors in any performance. The reason for this was because the actors were paid by the government and they wanted to keep the cost down. This meant that they would have to sometimes play more than one character in the performance. This is called 'Multi-Rolling'.

With every play there would be a Chorus. The Chorus could have as many as 50 people in it. Their job during the play was to comment on what was happening in the play. They would talk to the audience about whether the decisions being made by the characters were good or not. They were also in charge of keeping the audience entertained. They would do this via; choral speak (Talking as a big group), Song and Dance.

Conventions

During the performances the actors would all have to wear masks. These masks had different purposes. Firstly they were to keep the actors anonymous, meaning no one in the audience would know who they were. This was because if a character did something bad during the performance audiences would sometime struggle to remember that they are not that character and they are just pretending. Another reason for the masks is that they acted as a microphone. The shape of the mouths would help the actors to project their voices.

Women were not aloud to be on stage in ancient Greece. This meant that all female roles had to be played by younger boys because they would have higher pitched voices. This was because women at the time were seen as inferior to men.

Most of the plays would focus characters having a 'Hamartia'. This means fatal floor. This fatal floor would often be the undoing of the character and would lead to their downfall. Whether that be comical or a tragic death.

Five Key Acting Skills

Facial Expressions - How can we show emotions through our faces? Eye contact, eye brows, straight, emotions, gritting teeth, tense, relaxed, wrinkled, creased, staring, twitching.

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Key Terminology

Script - The written words and stage direction which are spoken and performed in a play. A script will be written by a writer and then given to a director to create a performance.

Director - This is the person who is in charge of the actors and performers. The director will tell the actors how they want them to perform and move in each scene. They will block the performance.

Blocking - When creating a performance you must first plan where all the actors are going to be standing and moving to on the stage. You must also plan what set and props are going to be used in your performance. This is called Blocking.

Stage Direction - Text in a script which tells you what you need to be doing while performing. Some scripts may have more stage directions than others. Some directors may also decide not to use all of the stage directions because they have their own ideas for what the performers should be doing.

Characterisation - Using a variety of skills, improvisation techniques and background information to become your character. These skills are your 5 key acting skills. It is important you fully understand the character you are performing. You MUST remember, you are no longer yourself when acting. You become someone else.

Performance Discipline - Maintaining extremely high and professional levels of focus and concentration throughout rehearsals and performance. This involves being on task at all times, not laughing or giggling when you are acting. It is crucial to stay focused when performing.

Ensemble - A group of performers all working together in a performance.

Freeze Frame - When a scene 'freezes' for a moment to allow the audience to really explore the moment. It is like pressing pause on live action.

Tableaux - A collection of still images which create a performance. It is like looking through a photo album.

Immersive theatre - Audience are included in the performance but don't know what is going to happen. Actors may talk to or ask the audience questions about what is happening in the performance.

Example Self-evaluation

STRENGTH During my performance, I wanted to show how my character was really angry with another character. To do this, I scrunched my eyebrows together and tilted my head slightly forward, using facial expression to show my annoyance. I also had a very big frown and narrowed whilst making a low pitched noise to display my frustration. This was successful because the audience could clearly see how angry my character was when seeing their friend after having an argument.

AREA FOR IMPROVEMENT During my performance, I wanted to show how my character was really happy to see someone. To do this, I slowly waved my hand and had a slight smile on my face whilst quietly saying 'Hello' in a soft tone. My intention was to show how I was happy but wanted to show it in a subtle way. However, the audience were confused by this and thought that my reaction was too small. If given the chance to perform this moment again, I would make my gestures much bigger, my movements quicker and my facial expressions much more exaggerated so that the audience can see my excitement much more clearly.

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