Year 7

Knowledge Organiser

May -July 2025

AMBITION, CONFIDENCE, CREATIVITY,
RESPECT, DETERMINATION

Proud to be part of the GREENSHAW LEARNING TRUST

FIVE ACRES HIGH SCHOOL

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.

Contents

Y7 English KO Summer Term Love Unit

Subject terminology

Grammar

Conjunctive adverbials:
Adverbs that act as conjunctions to link sentences or clauses together – however, furthermore, therefore.

Simple sentences:
A simple sentence is made up of one main or independent clause.

Main clause:
Must contain a subject and a verb.

Adverbial phrases:
A group of words that add to the meaning of a verb, adjective or adverb.

Passive voice:
When the subject receives (rather than does) the verb.

Techniques

Simile:
The comparison of one thing with another using **'like' or 'as'.**

Metaphor:
Describes a person or object by referring to something that is considered to have similar characteristics.

Personification:
Giving human characteristics to something non-human.

Poetry

Blank verse:
Writing that has a rhythm but doesn't rhyme.

Sonnet:
A 14 line poem that has a tightly structured rhythm, rhyme and structure.

Volta:
A 'turn' that marks the change of mood in a poem.

Iambic Pentameter:
A line of verse with 5 pairs of stressed and unstressed beats.

Context- Shakespeare's literature:

Much Ado About Nothing

A romantic comedy, written between 1598 and 1599, towards the end of Elizabeth 1's reign.

The play is set in the town of Messina and revolves around wo romantic pairings. The course of true love does not run smoothly and involves secrets, trickery, gossip and rumour.

Antony and Cleopatra

- written in 1606, immediately after *Macbeth,* this play is one of the last great tragedies that Shakespeare produced.

- *Antony and Cleopatra*'s setting is the entire Roman Empire, and captures the historical battle between Octavius Caesar, Marc Antony, and Cleopatra.

Romeo and Juliet

-written in 1595, the play is quite similar in plot, theme, and dramatic ending to the story of Pyramus and Thisbe, told by the great Roman poet Ovid in his *Metamorphoses*.

Poetry

William Shakespeare wrote 154 sonnets which were printed in 1609. Their main subject is 'love', but they also reflect upon time, change, aging, lust, absence, infidelity and the problematic gap between ideal and reality when it comes to the person you love.

Key concepts and themes

The power of Love:

In this unit we will explore the power that love has on our thoughts, feelings, emotions and actions. We will study how it brings joy to our lives, but also how it can cause conflict.

Loyalty and Duty:

We will explore how love can make us loyal, but also test our loyalties; how it can guide us but also how it can blind us from our duty.

Devotion:

We will explore how love creates intense feelings between people, and how these feelings change the way that we treat the people around us.

Identity:

We will look at how Love shapes and changes who we are, and how we are sometimes better at expressing our feelings when we are hidden from judgement.

Obsession:

We will examine how people see others as the centre of the universe, and how this obsessive love can cloud human judgement.

Key concepts and vocabulary

Loyalty: not changing in your friendship or love of someone or something.
Duty: something that you have to do as part of a job, or something that you feel is the right thing to do.
Devotion: loyalty and love or care for someone or something.
Tragedy: a play about death and suffering, with a sad ending.
Identity: who a person is, or the qualities of a person that make them different from others.
Melodramatic: exaggerated and emotional or sentimental.
Sentimental: influenced by emotions.
Contemptuous: expressing disapproval or disrespect.
Puritanical: having a strict moral attitude towards self-indulgence or sex.
Pompous: acting grandly, solemnly or in a self-important way.
Solemn: serious, without humour.
Unrequited: love that is not returned.
Exasperate: irritate intensely.
Masquerade: to pretend to be someone one is not.
Woo: to try to gain the love of.
Lament: a passionate expression of grief or sorrow.
Loathe: hate.
Turmoil: a state of disturbance, confusion or uncertainty.
Revelry: noisy partying.
Predicament: a difficult or embarrassing situation.
Mayhem: chaos.
Ignominy: public shame or disgrace.

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.

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.

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.

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.

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)

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.

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 ⅗).

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.

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

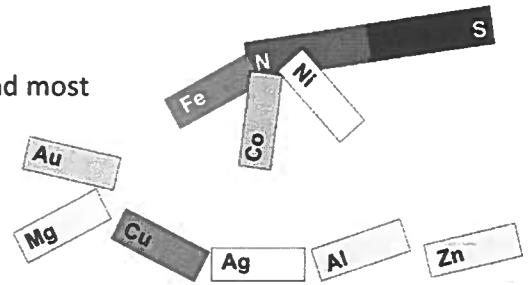
Fraction - a part of a whole. Made up of two parts; numerator and a denominator.
Decimals - a number that has a decimal point followed by digits that show the fractional part.
Percent - a number or ratio that can be expressed as a fraction of 100.

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.

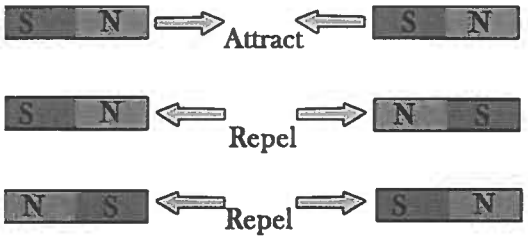


Box 2 – Rules of magnetic attraction and repulsion

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

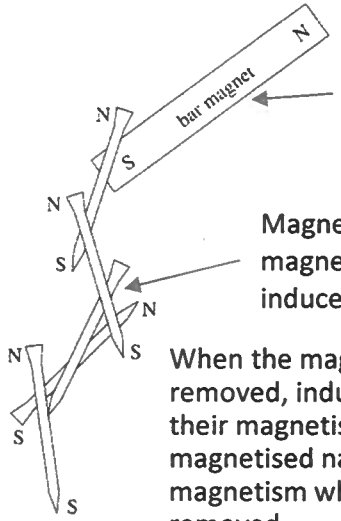
Like (the same) poles repel – north and north, or south and south



Box 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.



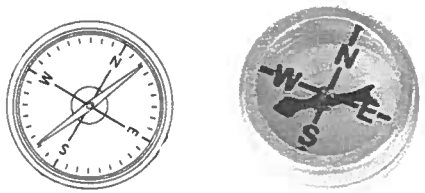
Bar magnet – permanent magnet

Magnetic materials – magnetism is temporarily induced

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 4 – Compasses and Magnetism

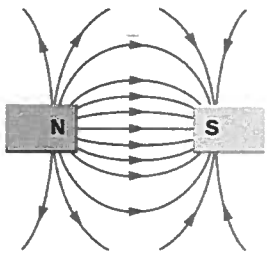
A **compass** contains a small bar magnet (the needle) that is able to rotate freely. A nearby magnet field will cause the needle to move in line with the magnetic field.

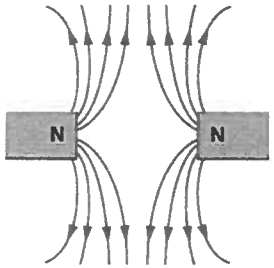


Box 5 - Magnetic fields

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.

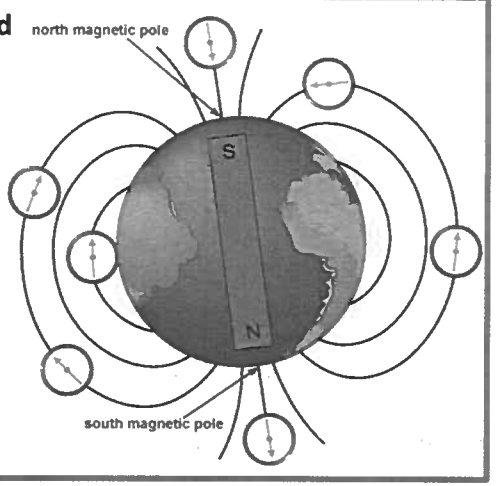
Field lines always point from **north** to **south**.

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**.



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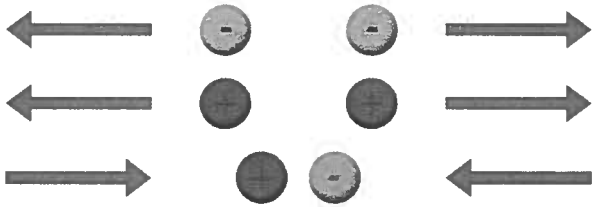
Year 7 Physics Knowledge Organiser – Electricity and Magnetism

Box 7 – Electrostatics

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

Like charges
(+ and + or – and –) repel

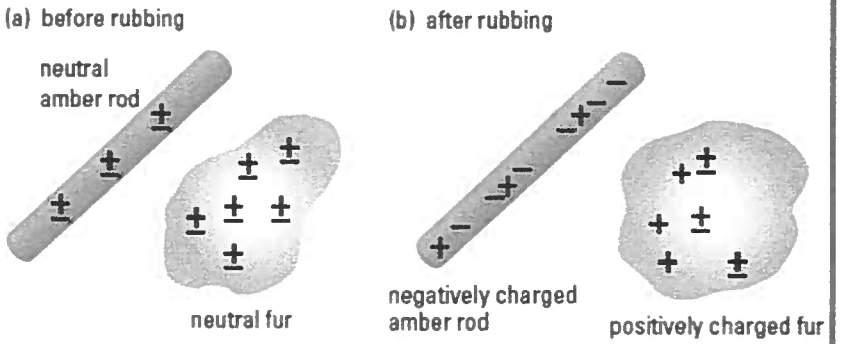
Opposite charges
(+ and –) attract



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.

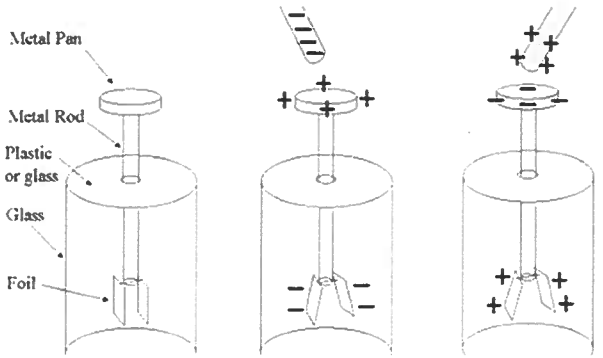


An object that loses electrons becomes positive (+)

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.

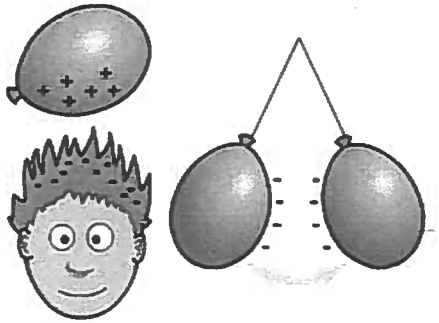
The bigger the charge, the more the foil leaves repel each other.

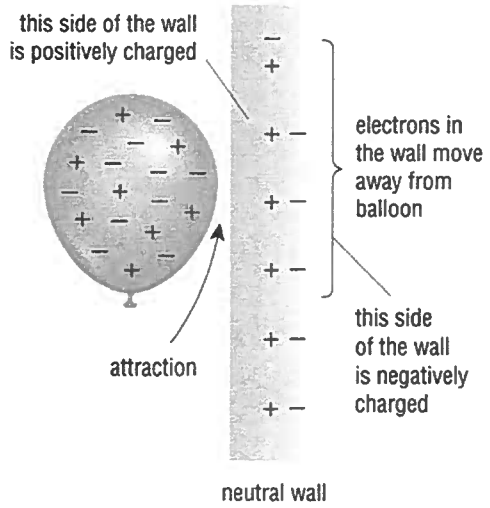
Key Terms	Definitions
Charge	A property of some particles, which causes them to experience a force when they are near others. Charge can be **positive** or **negative**
Proton	A subatomic particle with a **positive charge**
Neutron	A subatomic particle with **no charge** (they are **neutral**)
Electron	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.

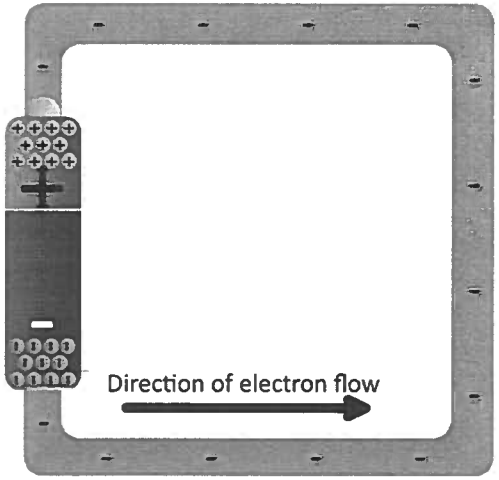
Year 7 Physics Knowledge Organiser – Electricity and Magnetism

Box 11 – Electrical Current

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

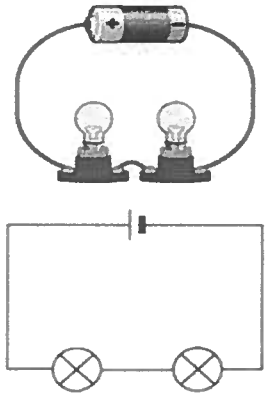
Electrical conductors allow electrons to flow through them.

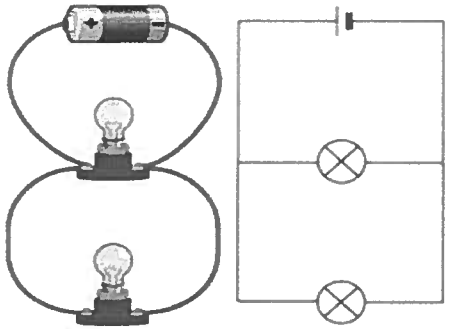
A cell or battery sets up the difference in charge in the circuit, which causes electrons to flow from the negative charge towards the positive charge.



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.

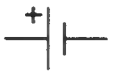
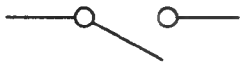
The more bulbs you put in the circuit, the dimmer the bulbs get.

If one bulb breaks, the whole circuit stops working.

Parallel circuits contain more than one loop or path for the current to flow along.

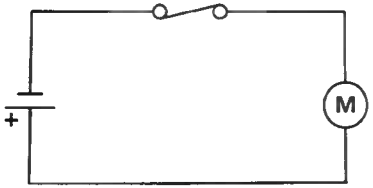
Adding new bulbs to the circuit in their own loop (connected in parallel) does not affect the brightness of other bulbs in the circuit.

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.

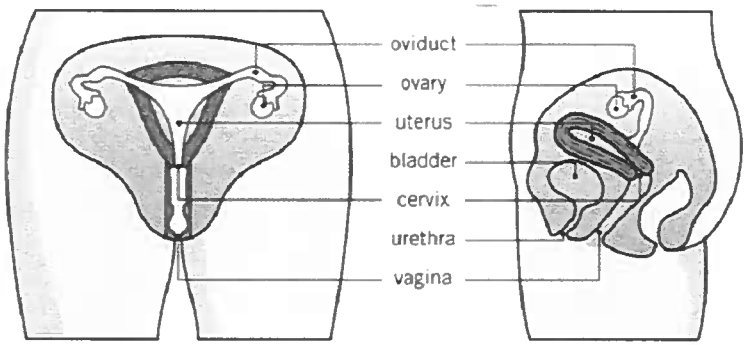


eg this circuit transfers energy from the cell (a chemical store) to the motor (a kinetic store)

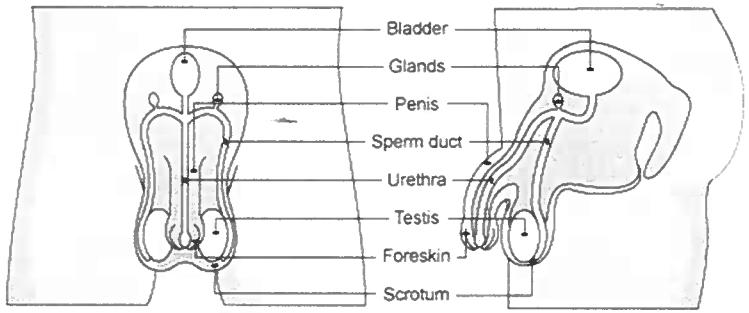
7

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

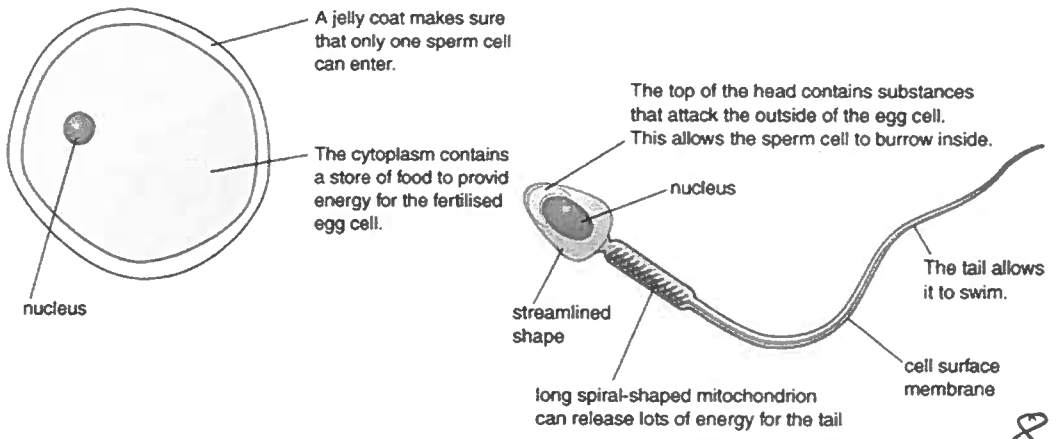
2. Secondary sexual characteristics in females include breasts developing, pubic hair growing, ovaries start to release egg cell, periods start, hips widen, ovaries produce female sex hormone

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)

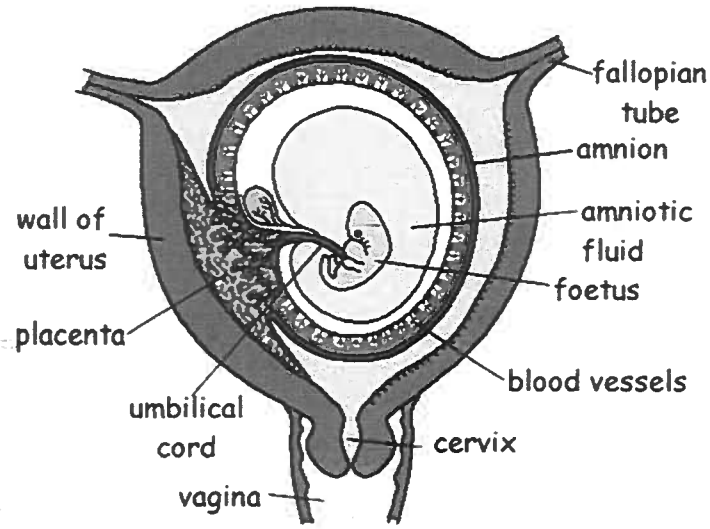
Average human gestation period from fertilisation to birth is 38 weeks.

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

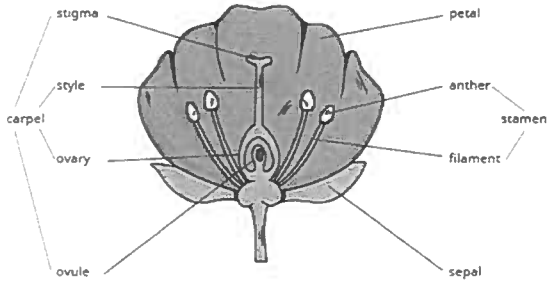
After about 40 weeks of pregnancy, the foetus is ready to be born.

- 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 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.

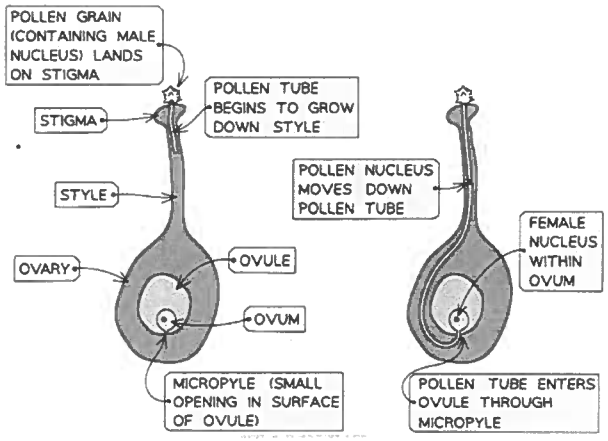
Box 12 – Comparing insect and wind pollination.

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 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 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

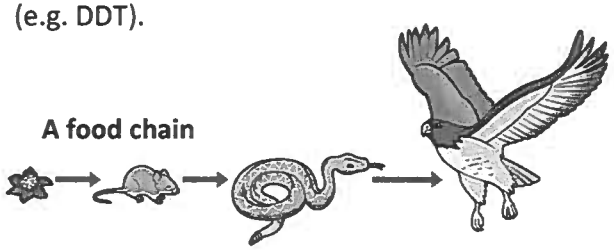
An ecosystem is the interaction between the living things and non-living things in an environment.

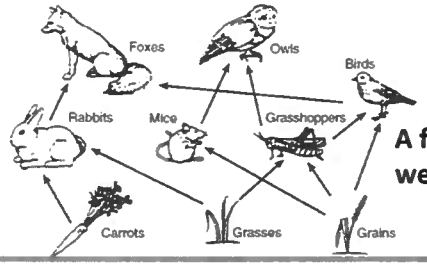
- Organisms within an ecosystem rely on each other for food, shelter, seed dispersal etc.
- Animals compete with each other for food, mates and territory.
- Plants within a habitat compete for light, space, water and mineral ions from the soil.

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).

A food chain



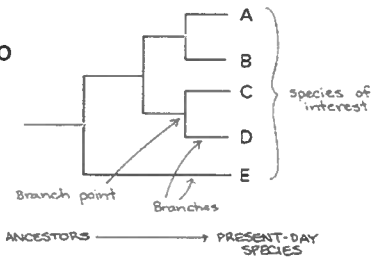


A food web

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)

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, 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*



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

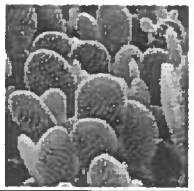



Box 4: Adaptation	Animal in cold climates	Animal in dry climates	Plants in Dry Climates (cactus)
Behaviour	Penguins huddle together to conserve heat	Often nocturnal when temperature is cooler	n/a
Structural	Thick fur and thick layer of body fat. Small SA : Vol ratio	Thin limbs giving a large SA : Vol 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

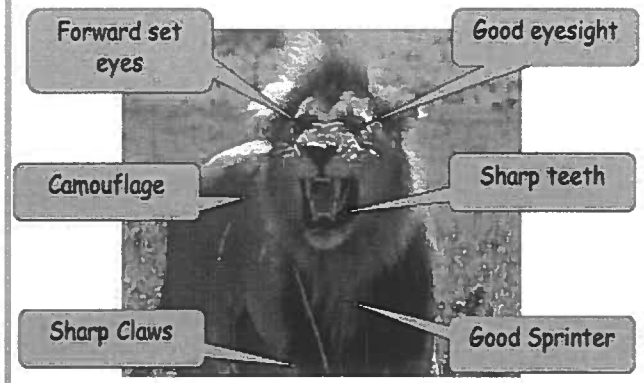
Box 5: Adaptations of desert plants

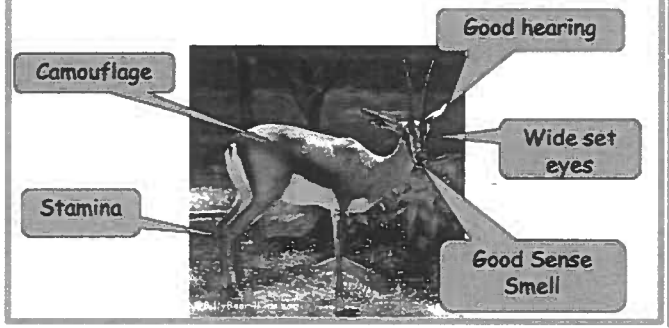
PLANT ADAPTATIONS

- **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

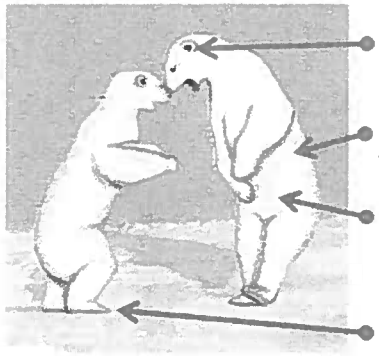


Box 6: Adaptations of predator and prey animals





Box 7: Adaptations of animals in cold regions



Small ears **help to reduce heat loss.**

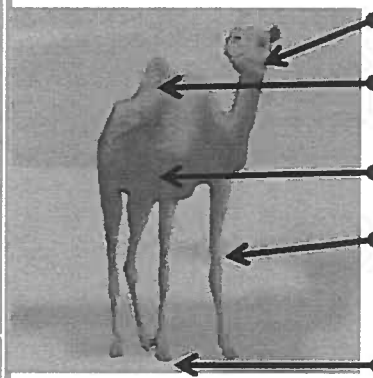
Thick fur **and a** thick layer of body fat **insulate from the cold.**

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 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

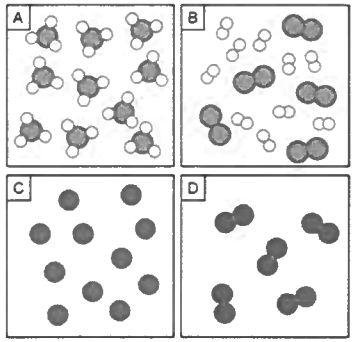
Box 9: Surface area : Volume ratio

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)

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 2 – Pure and Impure Substances

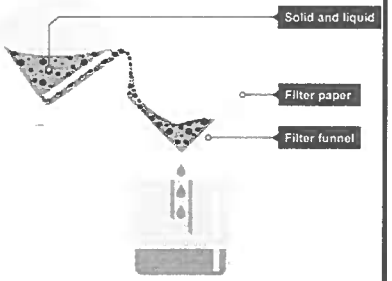
- A pure substance contains only <u>one</u> type of **element** or **compound.**
- **An impure substance** contains more than one type of element or compound in a mixture, for example salt water contains NaCl and H_2O. All mixtures are impure substances.

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 4 – Filtration

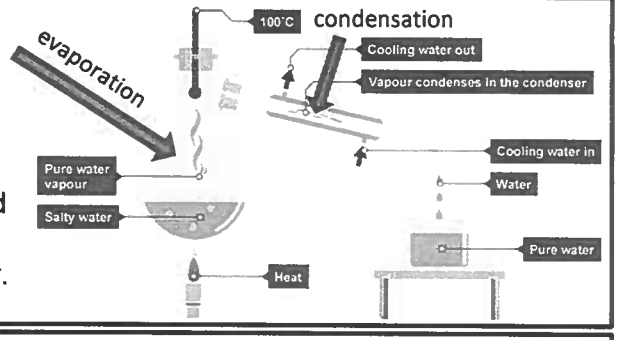
Used to separate an insoluble solid from a liquid using **filter paper**: the solid particles are too large to pass through the filter paper.



Box 6 – Distillation

Used to separate a solvent from a solution.

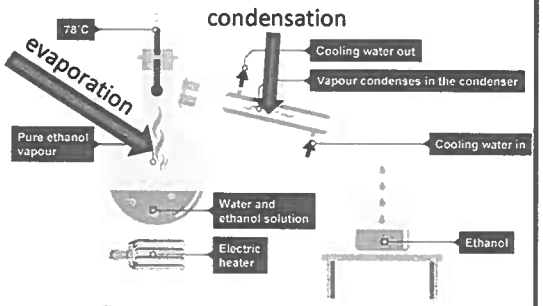
- The solution is heated so the solvent evaporates.
- The solvent in gas state is then cooled so it condenses back to a liquid.
- This process uses a Liebig condenser.



Box 7 – Fractional Distillation

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

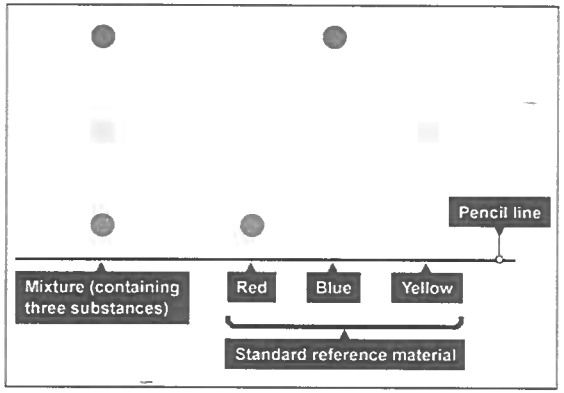
- The mixture is heated so the liquid with the lower boiling point evaporates.
- The separated gas is then cooled so it condenses back to a liquid.
- This process also uses a Liebig condenser.



Box 8 – Chromatography

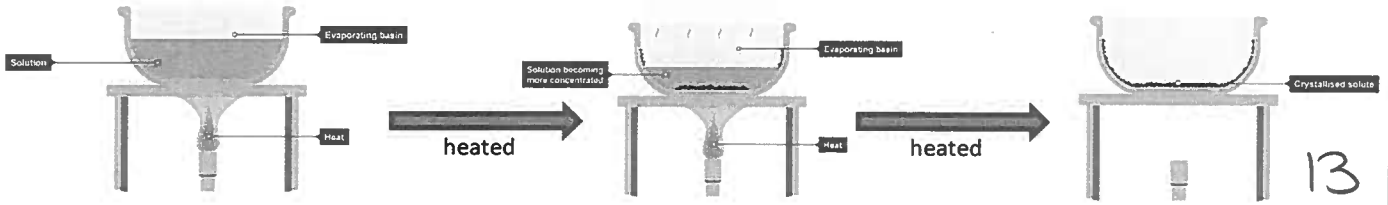
Used to separate a mixture of dissolved substances.

- 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.

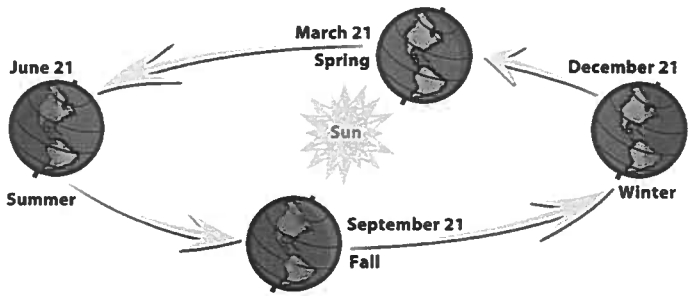
Key Terms	Definitions
Solar System	The sun and all of the planets in orbit around it
Galaxy	A system of millions or billions of stars held together by gravitational attraction.
Star	A huge ball of gas which can transfer thermal energy as light.
Planet	A large, circular object which orbits a star.
Dwarf 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.

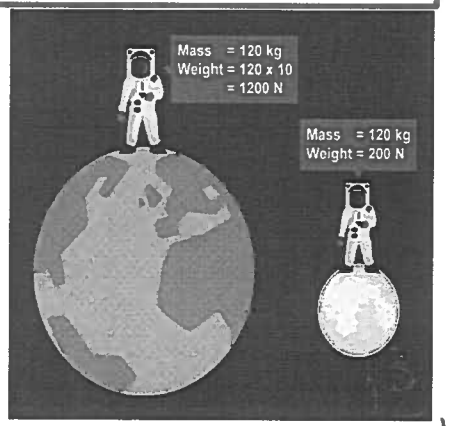
Box 3: Gravity

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.





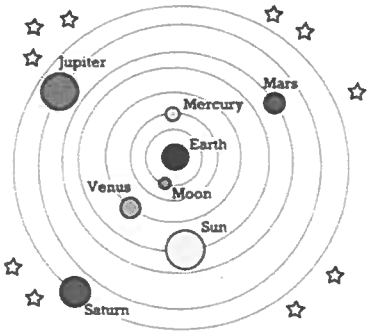
Year 7 Physics Knowledge Organiser – The Solar System

Box 4: Understanding the Universe

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

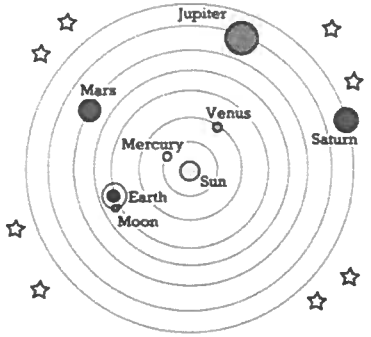
Before the development of the telescope, these ideas were based on what could be seen with the naked eye. This limited the details that could be gathered about the Solar System, as asteroids, most of the satellites of other planets, and the most distant planets are not visible to the naked eye.

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

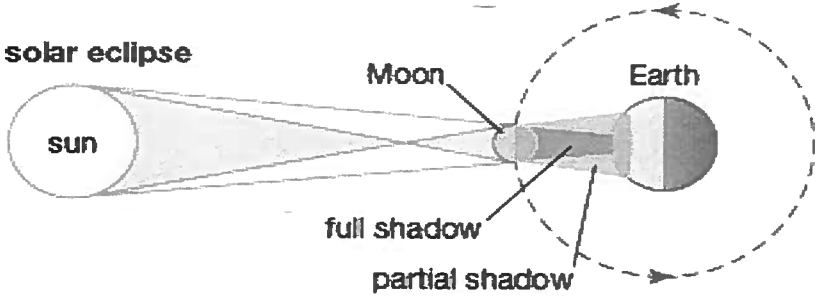
Objects in the solar system are constantly moving in ***orbits***. This orbital path never changes.

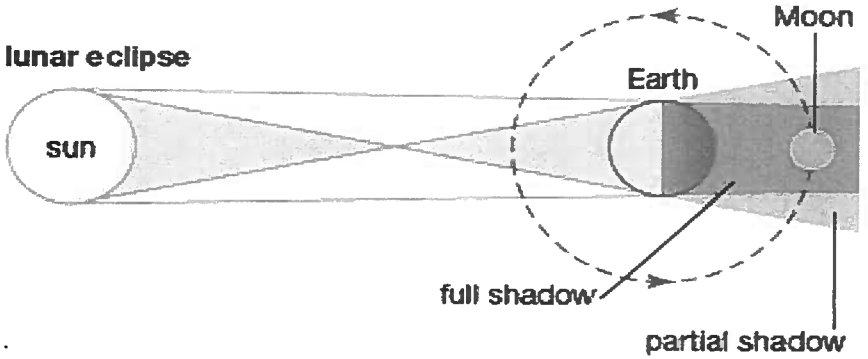
The Earth orbits the Sun. The Moon orbits the Earth.

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





History: Knowledge Organiser Year 7: How can we work out what mattered to people in Gloucestershire in the medieval period?

1 Manors

In 13th Century Gloucestershire, power and wealth depended on the ownership of land

- In the 13th Century, the **economy** was based on **agriculture**
  - An individual's wealth and power depended on how much land they owned
  - The **economy** depended on a good **harvest**
  - A failed **harvest** could lead to **famine** and **starvation**
- Most of England was divided into **manors**
  - A **manor** was a large area of land held by the **Lord of the Manor**
- The rest of the **manor** was rented out to the **peasants**
  - Each **peasant** family had a few strips of land and a small house on the **manor**
  - In return, the **peasants**:
    - worked three days' a week on the **Lord's** land
    - paid **rent** to the **Lord** in the form of grain, eggs, or other produce
  - Peasants had very few rights, for example:
    - Peasants could not leave the **manor** for more than a day without permission

2 Heaven and Hell

Medieval Christians tried to live good lives to make sure they went to heaven

Doom paintings in churches showed Medieval Christians what was going to happened to them after they died.

People who had committed spent eternity suffering in hell. Good Christians rose to heaven to be with God.

Christians could prove they deserved to go to heaven by:

- doing good works such as helping the poor and sick
- buying an indulgence, a certificate that forgave your sins
- going on pilgrimage, a long journey to a religious shrine

3 The Church

The Medieval Church was an international organisation whose power reached down into the lives of ordinary people

The Church hierarchy

The Pope
- the head of the Christian Church
- lived in **Rome** in Italy
- claimed power over all Christians and could **excommunicate** kings

The Archbishop of Canterbury
- was the most important **priest** in England
- was responsible for churches across the whole country

Bishops
- were the leaders of the Church in a region of England

Priests
- ran church services in a local area, called a **parish**

The Church encouraged ordinary people to worship saints
- One of the most popular **saints** was **Saint Cuthbert** who performed **miracles** such as calming a storm
- Medieval Christians worshipped **saints** by making a **pilgrimage** to a **shrine** (a statue of a saint or their remains)

The Church punished anyone who disagreed with Christian teachings
- Christians who disagreed with the Church were called **heretics** and could be **burnt at the stake**
- Non-Christians – such as Jews – were **expelled** (kicked out) from England

History: Knowledge Organiser Year 7: How can we work out what mattered to people in Gloucestershire in the medieval period?

4. Monasteries

The role of monasteries went beyond religious worship

Tintern Abbey was one of about 800 **monasteries** in England and Wales during the Middle Ages

What happened in the monastery?

- Prayer and worship took place in the **church**
- The poor and sick were cared for in the **infirmary**
- People came on **pilgrimages** to worship at the **shrine** of **Saint Mary**

Who was involved in the life of the monastery?

- The **abbott** was the monk in charge of the **monastery**
- **Monks** lived and worked in the **monastery**, praying 5 times a day, growing food and helping the poor
- Local **masons** (builders) were employed to build new buildings
- **Nobles** donated money to the **monastery** so **monks** would pray for them to go to heaven
- The poor received **charity** from the monks

5 Gender

Medieval England was a patriarchal society in which men and women had clear and separate roles based on religious ideas

The bible, the Christian holy book, taught that men were superior to women

- God expelled humans from the Garden of Eden because Eve was tempted to eat the forbidden fruit – this is known as the **original sin**
- Medieval Christians believed that this proved women were weaker than men and should take the blame for all of society's problems

Men were expected to provide for their family and perform important roles

- Peasant men were responsible for growing and **harvesting** food to feed the family
- If the king needed men to fight, men had to be ready to serve in his army
- Men filled all of the roles in the Church

Some women held power, but most women had very limited options

- Royal women such as **Emma of Normandy** or **Matilda** were very powerful
- However, most women had two choices: to get married or become a **nun** (a female equivalent of a monk)
- Married women helped their husbands by managing the household or helping in the fields at **harvest** time
- **Childbirth** was incredibly dangerous: **two percent** of pregnancies led to the death of the mother

6 Key Vocabulary

agriculture	farming
the Church	The international organisation that ran the Christian religion
gender	the characteristics of men and women
harvest	the period of gathering in the crops from the field
hierarchy	a system a in which people are ranked by their power or status
monastery	a large religious building where monks lived and prayed
noble	a wealthy landowner who inherited wealth and power from his family
original sin	Eve eating the forbidden fruit in the Garden of Eden
patriarchal	ruled and dominated by men
peasant	a poor farmer who rented land from others
the Pope	the head of the Church
saint	an especially holy person who could perform miracles
to excommunicate	to kick someone out of the Church (only the Pope had the power to do this)

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.

1.2 Religious Beliefs

	Catholics	Protestants
Who should be head of the church?	The **Pope**	The **Monarch**
What language should the Bible be in?	**Latin**	English
How should churches be decorated?	Highly decorated, **stained-glass**	Plain and simple
What did you need to do to get to heaven?	Good works, like charity	Just believe in God
Were monasteries important?	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

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**.

Henry felt that the marriage was cursed because **Catherine** had previously been married to Henry's older brother, **Arthur**.

Anne Boleyn

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**.

However, the Pope refused to let Henry **annul** his marriage to Catherine. Catherine also defended herself.

Religion

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.**

Power and Money

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 also liked the idea of being the most powerful person in the country. He named himself **Supreme Head of the Church.**

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.

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 - 1547 Henry VIII

- **Henry VIII** replaced the **Pope** and set up the **Church of England**
- The **monasteries** were **dissolved**
- A new **English bible** was printed
- Some **Catholic** beliefs were re-introduced in the 1540s

1547 - 1553 Edward VI

- **Henry's** son **Edward** was a **Protestant**
- All churches had to have an **English bible** and use a new English **Book of Common Prayer** in services
- **Altars** and **stained glass** windows were removed from churches

1553 - 1558 Mary I

- Henry's daughter Mary was a Catholic
- Mary led a **counterreformation** 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 - 1603 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
Anglicanism	The 'Middle Way' of Elizabeth I
Book of Common Prayer	The book that contains readings etc for church services
Burnt at the stake	Executed by being burnt alive
Church of England	The Protestant Church set up by Henry VIII
Conservatism	Wanting to keep things as they have always been
Counterreformation	The attempt to bring back Catholicism
Devout	Strong (belief)
Dissolved	Shut down (monasteries)
Doctrine	The set of beliefs taught by the Church
Exile	Being forced to stay out of the country
Heretic	Someone with illegal beliefs / insulting term for Protestant
Hotbed	An area with particularly strong beliefs
Literacy	The ability to read and write
Literate/Illiterate	Able to read and write/Not able to read and write
Migrants	People who moved to another country permanently
Monasteries	Wealthy church buildings that provided charity/healthcare
Printing presses	New inventions that allowed text to be printed and spread
Stained glass	Colourful glass in churches presenting bible stories etc
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

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 2 Why was Charles an unpopular man?

• 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 know 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 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
•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	**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. **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. **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.	•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.

VOCABULARLY

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	A very strict Protestant
Puritan	People who fought on the side of parliament
Roundheads	People who found on the side of the King, also known as Cavaliers.
Royalist	Ruling without parliament
Personal rule	The nephew of King Charles who led the royalist army
Prince Rupert	Ship Money (a charge people had to pay in coastal areas living by the sea)
Ship Money	Money you give to the government
Tax	Disloyalty to your country
Treason	

PCSHE – Year 7 Building Relationships

KPI1: Key Terms

- **Consent**: Consent is a person's permission or agreement by choice to anything that informs them. Consent must be freely given, it is reversible, it must be informed, enthusiastic and very specific.
- **Underage**: Under the age of 16.
- **Age of consent**: The age where someone can legally agree to taking part in sexual activity. In the UK the age of consent is 16.
- **Legislation**: the law
- **Prosecuted**: to bring legal action against a crime or punishment of a crime for the breaking of a law.
- **Affirmative consent:** consent is only given when a person agrees verbally to engage in sexual activities
- **Coercion**: The action or practice of persuading someone to do something they wouldn't normally do or something they don't want to do by using force or threats
- **A person who is a minor**: A person who is under the age of 18 and legally considered a child.

KPI2 – What is consent?

Consent is a person's permission or agreement by choice to anything that informs them. For example, their body, personal space, time, money and belongings.

We all have the right to be asked for consent in situations that involve us, and the responsibility to ask others for consent in situations that involve them. Consent is important because it gives people **choice** and **control** over decisions that affect them.

Consent is:

- Freely given. It's not okay to pressure, trick, or threaten someone into saying yes.
- Reversible. It's okay to say yes and then change your mind — at any time!
- Informed. You can only consent to something if you have all the facts.
- Enthusiastic. You should do stuff you WANT to do, not things people expect you to do. If someone doesn't seem enthusiastic stop and check in.
- Specific. Saying yes to one thing (like going to the bedroom to make out) doesn't mean you're saying yes to other things (like having sex).

KPI3 – Consent and the Law

In the UK, the age of consent is 16. This means that a person under the age of 16 cannot legally consent to sexual activity because they are seen as not having the capacity to do so. The law applies to everyone, regardless of gender or sexual orientation in England, Wales, Scotland and Northern Ireland.

The law is designed to protect young people from abuse, harm of being taken advantage of. If someone is under the age of 16 and decides to have sex anyway, it is still vital that they and their partner(s) are able to consent to sex in every other capacity.

According to the law, there are no circumstances in which someone under the age of 13 can consent to any sexual activity or act.

KPI4: Sexting

Sexting: Sexting is the sending or posting of nude or semi-nude images, videos or live streams online by young people under the age of 18. This could be via social media, gaming platforms, chat apps or forums. It could also involve sharing between devices via services like Apple's AirDrop which works offline.

What is the law about sexting?

In the UK the age of consent for sexual intercourse is 16. However, it is an offence to make, distribute, possess or show any indecent images of anyone aged under 18, even if the content was created with the consent of that young person. The law is contained in **Section 1 Protection of Children Act 1978**. 'Indecent' is not defined in law. When cases are prosecuted, the question of whether any photograph of a child is indecent is for a jury, magistrate or district judge to decide. Indecent imagery does not always mean nudity.

Will I get in trouble?

You can get in trouble if you threaten to share a nude, even if you don't actually do it. Only the police can decide if they're going to charge you with an offence after sexting. But it's important to remember that the law is there to protect you, not get you into trouble.

KPI5: Healthy and Unhealthy Relationships

Healthy Relationships	Unhealthy Relationships
You know when you're in a healthy relationship because you feel happy to see and spend time with certain people No relationship is perfect, and you will definitively have moments with minor disagreements causing frustration There are many factors that could contribute to the development and maintenance of healthy relationships including: commitment ; trust; respect; and responsibility.	The signs of an unhealthy relationship are easy to spot. People stop communicating, becoming less close, argue more frequently and show less love and respect for each other. There are many ways to deal with/improve an unhealthy relationship • we could try listening more to others and becoming more aware of their needs. • We could examine our own behaviour honestly and try to identify aspects of it which is causing conflict with others. • However, the best way to improve an unhealthy relationship between partners is by getting advice.

Where to get more help and support:

- Parents and trusted family members
- Teachers and School Staff including School Nurse and Safeguarding Team
- Your Doctor or Community Nurse
- NHS Online
- NSPCC: Helpline: 0808 800 5000 (24 hours, every day) nspcc.org.uk
- Childline: Helpline: 0800 1111(24 hours, every day) https://www.childline.org.uk
- CEOP: www.ceop.police.uk/Safety-Centre

PCSHE – Year 7 Financial Decision Making

Key Terms:

- **Income Tax**: Income tax is the money that individuals or businesses have to pay to the government based on the money they earn or the profits they make.
- **Earnings**: Earnings are the money or income that individuals or businesses receive from their work, businesses, or investments.
- **Interest:** the bank (or whoever) pays us for the chance to use our money
- **Fixed cost:** costs that are the same no matter how many people are involved.
- **Income**: The money you earn or are given
- **Needs:** essentials such as water and food
- **Wants:** things that we don't really need but like to keep up to date
- **Expenditure:** the money you have to pay to others or decide to spend.
- **Savings account**: an account for money you don't need instantly. Often you get paid interest on savings accounts.
- **Budgets**: Budgets are plans that help individuals or businesses keep track of their money. They show how much money is coming in (income) and how much is going out (expenditure), helping to control spending and save money.
- **Disposable**: Disposable refers to the income or money that individuals or households have left after paying taxes and essential expenses. It is the money available for spending or saving on non-essential items.
- **Loan**: A loan is an amount of money borrowed from a bank or lender. The borrower agrees to repay the loan over time, usually with interest added.
- **Gambling**: Gambling refers to playing games of chance or betting on uncertain outcomes, usually involving money. It involves taking a risk with the hope of winning more money or prizes.
- **Value**: Value refers to the worth or importance of something. It can be the monetary worth of an item or the significance or usefulness it holds.
- **Debt:** Debt refers to an amount of money that one party (person) owes to another
- **Fraud**: Fraud is a dishonest act carried out with the intention to gain an unfair advantage. It involves concealment (*hiding)* of information, or manipulation of facts for personal or financial gain.

KPI2: Saving and Budgeting

Types of accounts:

- **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. They are specifically designed for you to save money in and are usually best for saving larger amounts.
- **Current accounts:** These help you to manage your day-to-day money, pay bills, receive incoming money.

Risk: Different types of savings and investments carry different types of risk. Some finances are high risk, that is, the chances of something bad happening are high; however, in return for taking that high risk, you might earn more money than someone who saves in a low-risk way. Putting your money in a piggy bank could be described as so low risk that it's virtually risk free, but therefore you get no extra money back. Normally, the higher the risk, the higher the possible return, but also the potential for a higher loss.

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

- 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
- You have considered other things you might want to use your money for, such as giving to charity.

KPI3: Gambling

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. This is how organisations in the gambling industry make their money.

There are several sectors where gambling activities take place

- Arcades
- Betting
- Bingo
- Casino
- Lotteries
- Gaming machines
- Social gambling

Impacts of gambling:

- 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.

KPI4: Dealing with financial dilemmas

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.

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.
- **Moraines:** 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 was 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 hear, 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 her 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

KPI3 How do glaciers work?

Glaciers erode landscapes in two ways:

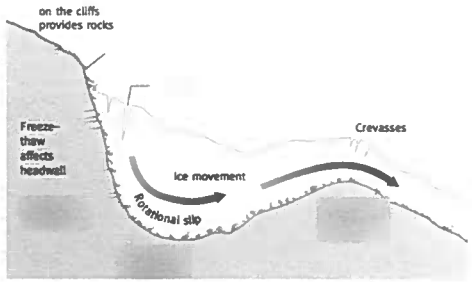
1. **Plucking** takes places where loosened blocks of bedrock become frozen to the base of the glacial ice. As the ice moves forward, the rock frozen to the ice moves with it and is plucked from the bedrock.
2. As the ice moves forward, these rocks scrape against the bedrock, wearing it away. This is 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

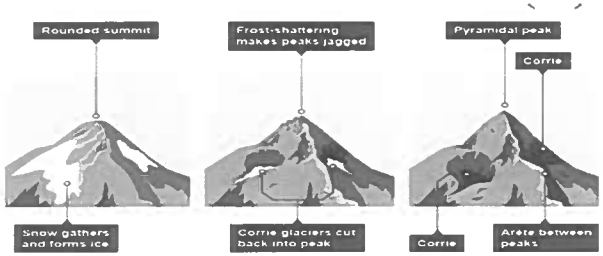
Corrie Formation:
1. Snow collects in the sheltered hollow on the side of a mountain.
2. More snow is added which compacts down to form ice.
3. The back of the corrie gets steeper due to freeze-thaw and plucking
4. The base becomes deeper due to abrasion
5. As the glacier gets heavier it moves down hill 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?

KPI5 – How do pyramidal peaks and aretes form?

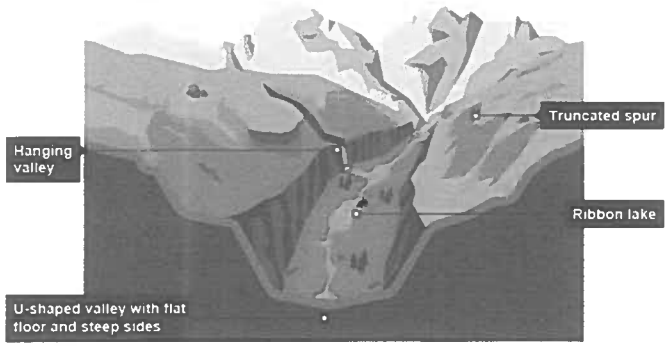
When two corries develop side by side, the glaciers erode the rock between them leaving a knife-like edge called an Arete. When three or four corries develop around a mountain top, a steep pointed peak is formed – this is called a pyramidal peak.



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 4 What processes have shaped the UK?

KPI9 What are the opportunities associated with glacial landscapes?

The Lake District in the northwest of England is a place that has been shaped by glacial processes in the past.

People use glaciated areas in a number of ways including:

- Tourism; 19.38 million visitors each year, tourists spend around 1.48 million each year
- Farming; employs 2,500 people. Upland soils are thin and acidic so hill sheep farming is common. Lowland flat glacial through (hollow in the land) have thicker soil so are suited to crop farming
- Forestry; Woodland covers 12% of the Lake District National Park Large conifer tree plantations are suited to the acidic soils
- Slate; Quarrying Only one active slate quarry left (Honister Slate Quarry) provides employment for local people Abandoned quarries are now used for adventure activities e.g. zip wiring

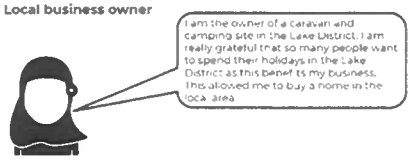
KPI 10 What are the challenges associated with glacial landscapes?

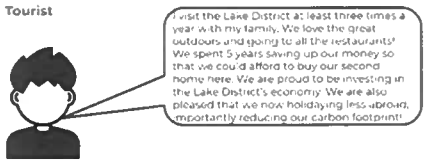
The Lake District is a National Park. A National Park is an area of outstanding natural beauty which have been preserved for the people of the future. National Park has two aims; To preserve and enhance an area's natural beauty. To promote people's enjoyment of the countryside

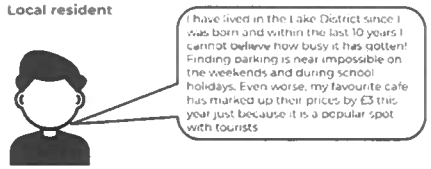
Stakeholder - are any groups or individuals involved in or interested in an area. They range from residents, environmentalists and businesses to local councils and planners

As there are many different stakeholders who use the Lake District this can create challenges and conflict can occur:

- *Traffic problems* – Visitors come by car often just for one day. Many roads are narrow and winding. Queues are a common problem , especially towards the end of the day when day trippers are heading home. Congestion (lots of cars on a road) and parking are also a serious problem
- *Honeypot Sites* - The Lake District has both physical and cultural honey pot sites *(these are areas that tourists swarm to*). Beauty spots, small shopping centres, and historic houses attract hundreds of visitors per day.
- *Pressure on housing* - Almost 20% of property in the Lake District is either second home or holiday let accommodation
- *Environmental Issues* - Water sports are not allowed on some lakes, but Windermere, the largest lake, has ferries and allows power boating , wind surfing and other faster and more damaging activities. The main issue is the wash (waves) from faster vehicles eroding the shore, fuel spills are not common, causing pollution. Often visitors don't stick to paths and this can lead to erosion of foot paths and they can drop litter which might endanger wildlife.







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 thing 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.

KPI2 – Population Explosion

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

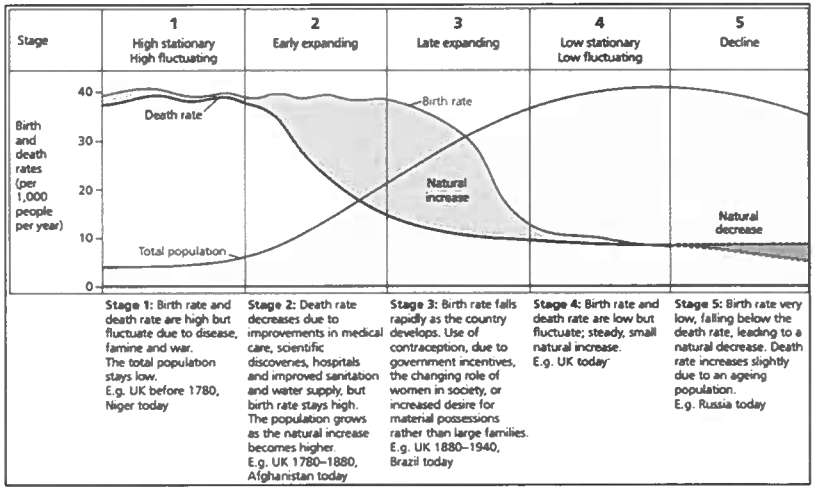
Reasons:

- 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.



KPI3 – Population density

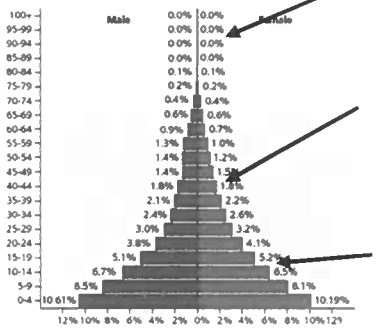
Population density is the number of people per km2.

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.

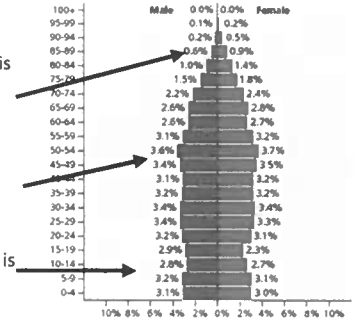
A population pyramid of this shape suggests a country is an LIC, in stage 2/3 of the Demographic Transition Model.

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.

KPI 7 – 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	Examples of Pull factors
Lack of facilities, war, high crime rates, drugs use and corruption, poor educational opportunities, drought, isolation etc.	Quiet, cheaper housing, larger gardens, high employment rates, low crime rate, high quality of life, good availability of services.

KPI 9 – 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

Year 7 French Term 3 – School and Holidays

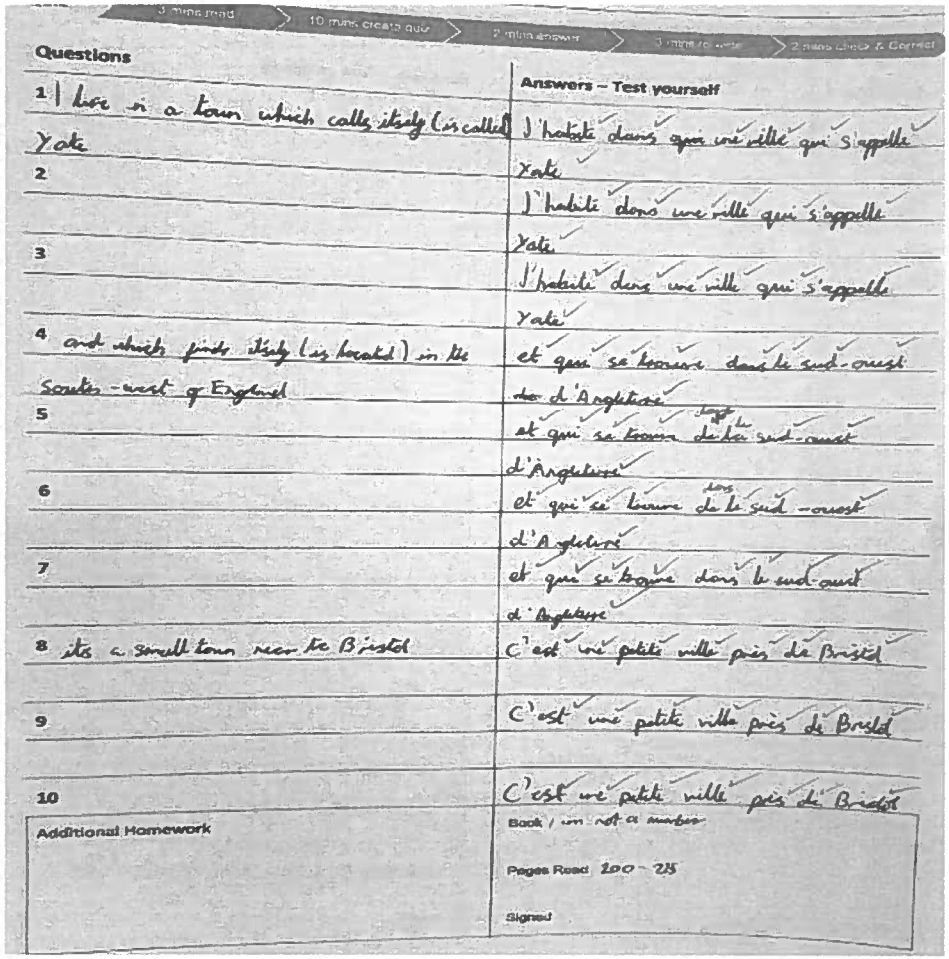
1	Mon école s'appelle … c'est un grand collège	My school is called … it's a big secondary school
2	Mon école s'appelle … c'est un lycée	My school is called … it's a sixth form
3	Dans ma collège **il y a** beaucoup d'étudiants	In my school **there are** lots of students
4	Dans mon lycée **nous avons** plein de cours	In my sixth form **we have** plenty of lessons
5	Dans ma collège **il est interdit d'**utiliser son portable en classe	In my school **it's forbidden** to use our mobile in class
6	Le lundi **j'étudie** l'histoire à neuf heures et quart	On Mondays **I study** history at quarter past nine
7	La semaine dernière **j'ai étudié** le sport à neuf heures et demie	Last week **I studied** sport at half past nine
8	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
9	**je pense que c'est** utile	**I think that it is** useful
10	**c'était** pratique	**it was** practical
11	Normalement **je vais** en Amérique avec mes parents	Normally **I go** to America with my parents
12	Quelquefois **nous voyageons** en voiture parce que c'est confortable	Sometimes **we travel** by car because it is comfortable
13	Souvent **je reste** dans un camping au bord de la mer	Often **I stay** in a campsite at the seaside
14	S'il fait beau **je fais** du tourisme au centre-ville	If it's nice weather **I do** tourism in the city centre
15	S'il fait chaud **nous faisons** de la natation à la piscine	If it's cold **we do** swimming in the pool
16	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

17	Si je pouvais **je voudrais voyager** en avion privé	If I could **I would like to travel** by private plane
18	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
19	Si je pouvais **je resterais** dans un château	If I could **I would stay** in a castle
20	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:

Key Word	Student-friendly definition	Example
Infinitive	In English it is always accompanied by the word **"TO"**. In Spanish, it always finishes in **"R" (-ar/-er/-ir)** E.g: **to** play, **to** do, **to** go, **to** visit. jugar/ hacer / ir / visitar	An opinion is always followed by an infinitive: Me gusta jugar/ hacer/ comprar I like **to play/to do/to buy** After suelo/solía, you always need an infinitive: suelo ver /jugar/descansar I tend **to watch/to play/to rest**
Cognate	A word that is similar in spelling and meaning in two languages,	This word is a cognate, what do you think it means? e.g. ciclismo = cycling
Connectives	A word that links two sentences or ideas together, e.g. y/por otro lado	What connective can we use to link these two sentences ? • Me gusta la historia **(pero)** odio el ingles • I like history **but** I hate English
Intensifiers	A word that strengthens the meaning of other expressions and shows emphasis, e.g. muy/bastante	Every time you write an adjective, make sure you use an intensifier before it. • Creo que las ciencias son **muy** interesantes • I think science is **very** interesting

Example of a French/Spanish LSQ:



Questions	Answers – Test yourself
1 I live in a town which calls itself (is called) Yate	J'habite dans une ville qui s'appelle Yate
2	Yate J'habite dans une ville qui s'appelle
3	Yate J'habite dans une ville qui s'appelle
4 and which finds itself (is located) in the South-west of England	Yate et qui se trouve dans le sud-ouest de d'Angleterre
5	et qui se trouve dans le sud-ouest d'Angleterre
6	et qui se trouve dans le sud-ouest d'Angleterre
7	et qui se trouve dans le sud-ouest d'Angleterre
8 its a small town near to Bristol	C'est une petite ville près de Bristol
9	C'est une petite ville près de Bristol
10	C'est une petite ville près de Bristol
Additional Homework	Book / on not a number Pages Read 200 - 225 Signed

Year 7 Spanish Term 3 – School and Holidays

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

18	Si fuera posible **pasaría mis vacaciones** cerca de la playa	If it were possible **I would spend my holidays** near to the beach
19	Si fuera rico **me gustaría alojarme** en un hotel de lujo	If I were rich **I would like to stay** in a luxury hotel
20	Para las vacaciones de mis sueños **me gustaría ir** a Latinoamérica	For my dream holidays **I would like to go** to Latin America

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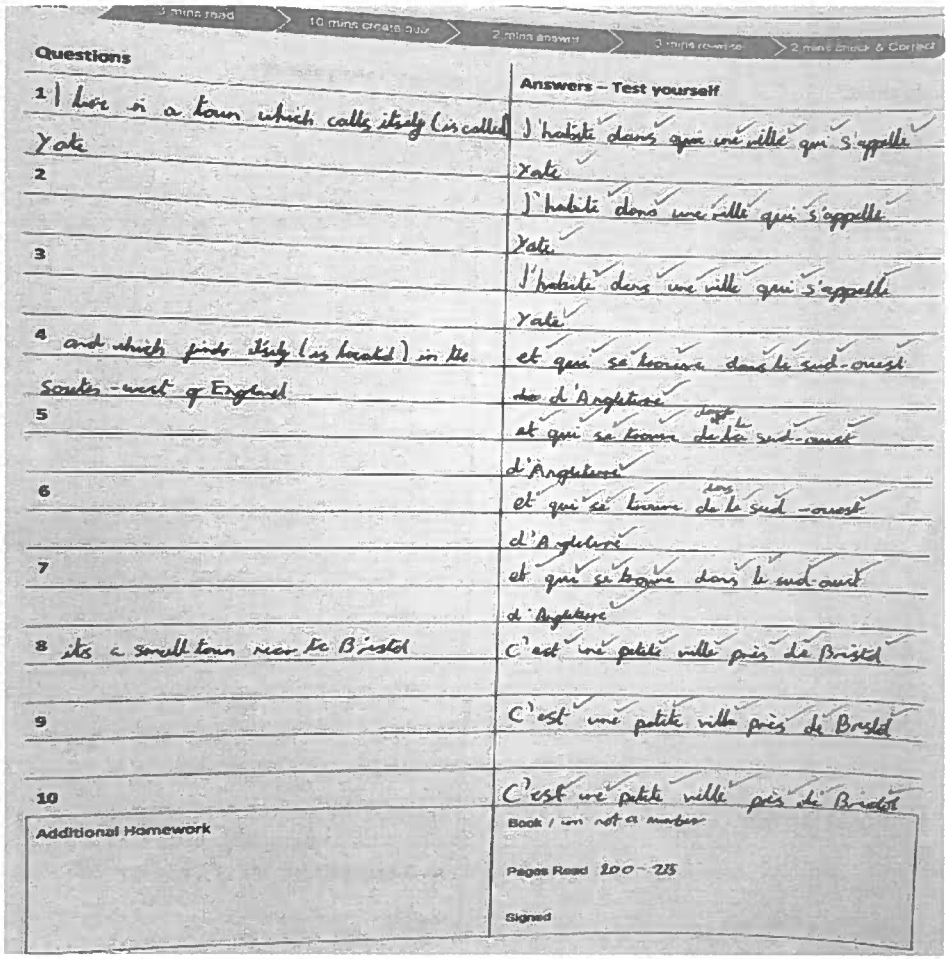

3 mins read | 10 mins create quiz | 2 mins answer | 3 mins reverse | 2 mins check & Correct

Questions	Answers – Test yourself
1 I live in a town which calls itself (is called) Yate	J'habite dans une ville qui s'appelle Yate
2	Yate J'habite dans une ville qui s'appelle
3	Yate J'habite dans une ville qui s'appelle
4 and which finds itself (is located) in the South-west of England	Yate et qui se trouve dans le sud-ouest de d'Angleterre
5	et qui se trouve dans le sud-ouest d'Angleterre
6	et qui se trouve dans le sud-ouest d'Angleterre
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8 its a small town near to Bristol	C'est une petite ville près de Bristol
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Additional Homework	Book / on not a number Pages Read 200 - 225 Signed

Knowledge organiser- Year 7 Acts of worship

Key words			
Worship	Acts of religious praise, honour or devotion shown towards God/deities	**Shrine**	Tomb/monument to a holy person
Temple	Buddhist place of worship	**Buddharupa**	Statue of the Buddha
Vihara	Buddhist monastery	**Gurdwara**	Sikh holy building
Puja	Worship rituals performed by Buddhist and Hindus	**Guru Granth Sahib**	Sikh holy book
Mantra	A sacred prayer/word chanted repeatedly	**Kirtan**	Hymns
Mandir	Hindu holy building	**Sewa**	Selfless service
Murti	Hindu image of God		

KPI1: To describe the reason for worship

In worship people pray together, sing songs, give offerings to God, visit holy places and read holy books. Celebrating festivals is also an important part of religious worship, bringing people together with a common purpose to remember an important religious leader or event.

KPI2: To Describe How and Where Buddhists worship

Buddhists can worship both at home or at a temple.

At home Buddhists will often set aside a room or a part of a room as a shrine.

There will be a statue of Buddha, candles, and an incense burner.

A mantra is a word, a syllable, a phrase or a short prayer that is spoken once or repeated over and over again

http://www.bbc.co.uk/religion/religions/buddhism/customs/worship_1.shtml

KPI3: To investigate Sikh forms of worship

The main purpose of worship is to praise the one, true God, referred to as **Waheguru.**

Sikhs do not have images of God in their place of worship, the **gurdwara.**

The **Guru Granth Sahib** is treated as a living person and has its own room in the gurdwara. The person who looks after the Guru Granth Sahib is the **granthi.**

Sewa is an important part of worship. Sikhs fulfil this duty when they help in the **langar** or look after the gurdwara, study the Guru Granth Sahib and teach it to others and give money or other help to people in need.. https://www.bbc.com/education/guides/zgrkxnb/revision

KPI4: To be explain the importance of worship for a Hindu

Hindu worship, or **puja**, involves images **(murtis),** prayers **(mantras)**

Central to Hindu worship is the image, or icon, which can be worshipped either at home or in the temple.

Worshippers repeat the names of their favourite gods and goddesses, and repeat mantras. Water, fruit, flowers and incense are offered to god.

The majority of Hindu homes have a **shrine** where offerings are made and prayers are said. A shrine can be anything: a room, a small altar or simply pictures or statues of the deity.

http://www.bbc.co.uk/religion/religions/hinduism/worship/worship.shtml

Knowledge organiser- Year 7 Acts of worship

Key words			
Shabbat	Jewish holy day	**Masjid**	Meeting place for prayer, worship and community for Muslims
Tanakh	Holy books for Jews	**Muezzin**	Muslim caller to prayer
Synagogue	Jewish holy building	**Salah**	2nd pillar of Islam (Prayer)
Torah	Five books of Moses	**Tawhid**	Belief in one God
Yad	Pointer used to read the scrolls	**Allah**	Arabic word for God
Ner Tamid	Represents God's covenant with Jews	**Minaret**	Tower where the call to prayer takes place

KPI6: To describe how Jews worship

- Public worship takes place in a **synagogue.**
- A **rabbi** usually leads the services.
- Orthodox worship is traditional worship, as described in the **Torah**. Much of the service is conducted in Hebrew, men and women sit separately, men must cover their heads with a **kippah**, only men can be rabbis, singing is unaccompanied by music, and Jews are expected to walk to the synagogue on Shabbat since driving is considered a forbidden form of work.
- **Shabbat** is the most important day of worship in the home. It is celebrated on the seventh day of every week from sunset on Friday to sunset on Saturday in order to observe the commandment- 'Remember the Sabbath day by keeping it holy'.

Features of Shabbat celebration

- On the Friday before the onset of Shabbat the house is cleaned and food is prepared, since no work can be done once Shabbat begins.
- At sunset two candles are lit by the mother of the family, and prayers are said to welcome Shabbat. https://www.bbc.com/education/guides/zcc86sg/revision/2

KPI7: To explain the importance of worship in Islam

- Public worship takes place in the **mosque.**
- The **muezzin** calls the people to prayer, sometimes from a **minaret.**
- **Salah** is led by the **Imam,** a man chosen for his knowledge of the **Qur'an.**
- When Muslims pray, they offer praise, thanks or repentance for sins to **Allah**.
- From the minute a child is born and the words of the **Adhan** are whispered into its ear, Muslim children are encouraged to pray.
- Salah is performed five times a day at set times: dawn, just after noon, in the afternoon, at sunset and in the evening. https://www.bbc.com/education/guides/z94dtfr/revision/3

Design & Technology
Year 7

1. Woods

Man-Made Woods

	Description	Uses
Medium density fibreboard (MDF)	•Has a smooth, even surface •Easily machined and painted •Available in water and fire-resistant form •Often veneered or painted to improve its appearance	•Furniture and interior panelling
Chipboard	•Made from chips of wood glued together with urea formaldehyde (glue) •Usually veneered with an attractive hardwood or covered in plastic laminate	•Kitchen and bedroom furniture •Shelving and general DIY Work
Plywood	•A very strong board, constructed of layers of veneer or piles, which are glued together with the grains at 90° to each other •Interior and exterior grades available.	•Furniture making •Boat building and exterior work
Hardboard	•A very cheap particle board •Can have a laminated plastic surface	•Kitchen unit and furniture back panels

Hard Woods

	Description	Uses
Oak	•A very strong, light-brown wood •Open grained •Very hard, but quite easy to work with	•High quality furniture •Beams used in building •Veneers
Mahogany	•Reddish-brown in colour •Easy to work with	•Indoor furniture •Shop fittings •Bars •Veneers
Beech	•A straight- grained hardwood with a fine texture •Light in colour •Very hard but easy to work with •Can be steam bent	•Furniture •Toys •Tool handles
Ash	•Open grained •Easy to work with •Pale cream colour, often stained black •Can be laminated (i.e. sliced into veneers which are glued together)	•Tool handles •Sports equipment •Furniture •Ladders •Veneers

Soft Wood

	Description	Uses
Pine	•Pale-yellow coloured with dark lines and a fine, even texture. •Medium in weight •Stiff and stable •Inexpensive	•Readily available for DIY work •Mainly used for constructional work and simple joinery •Furniture

2. Plastics

	Properties:
Acrylic	• Hard wearing • Will not shatter • Can be coloured • Bathtubs, School Projects, Display signs
Polypropylene	•High impact strength •Softens at 150°C •Can be flexed many times without breaking •School chairs, Crates
High Impact Polystyrene (HIPS)	•Light but strong •Widely available in sheets •Used for casings of electronic products
Polythene (LDPE)	• Weaker and softer than HPDE. • Lightweight • Carrier Bags + Squeezy Bottles
Polythene (HDPE)	•Stiff strong plastic •Used for pipes and bowls •Buckets
Urea formaldehyde	•Colourless plastic •Can be coloured •Door and cupboard handles, Electrical fittings

3. Material Properties

Strength
The ability of a material to stand up to forces being applied without it bending, breaking, shattering or deforming in any way.

Elasticity
The ability of a material to absorb force and flex in different directions, returning to its original position.

Ductility
The ability of a material to change shape (deform) usually by stretching along its length.

Malleability
The ability of a material to be reshaped in all directions without cracking.

Hardness
The ability of a material to resist scratching, wear and tear and indentation.

Toughness
A characteristic of a material that does not break or shatter when receiving a blow or under a sudden shock.

3. Metals

	Properties:
Aluminium	•Light Weight •Light grey in colour •Can be polished to a mirror like appearance •Rust resistant
Mild Steel	•Heavy •Dark grey in colour •Rusts very quickly if exposed
Stainless Steel	•Heavy •Shiny appearance •Very resistant to wear / rust.
Cast Iron	•Re melted pig iron with some quantities of other metals •Strong in compression. •Brittle
Copper	•Reddish brown metal. •Soft •Excellent conductor of heat and electricity
Brass	•Yellow metal •Hard •Alloy

4. Composites

Carbon Fibre	GRP Fibreglass
Expensive in comparison to other materials. Very good strength to weight ratio. Used in the manufacture of high end sports cars and sports equipment.	GRP is composed of **strands of glass which are woven to form a flexible fabric. The fabric is normally placed in a mould and polyester resin is added.** **Glass reinforced plastic is lightweight** and has **good thermal insulation properties.** It has a **high strength to weight ratio**

Art - Year 7 - Portraiture

Formal Elements

Line
A mark that connects two or more points. These can be straight, curved, short or long.

Tone
The lightness or darkness or something.
For darker tones use a higher grade B pencil.

Colour
Colour is what you see when light reflects off something.

Texture
How something looks or feel e.g. fluffy, rough, smooth etc.

Pattern
A symbol, shape or colour that repeats.
Man-made patterns are designed by humans, natural patterns are formed by nature.

Shape/Form
Shape is 2D e.g. rectangles. Form is 3D e.g. cubes, spheres etc.

Tips, Tools & Techniques

Blender Stick
A paper stump that allows you to blend tones.

Blending
The smooth transition between tones.

Tints
Adding white to a colour to make it lighter.

Tones
Adding black to a colour to make it darker.

Shading Techniques
Hatching, cross-hatching, stippling and scumbling.

Keywords

Proportion
In portraits = the size and relation of face features on the face. It is where key features are placed in your drawing to show correct distance between each face feature.

Portraiture
The art of drawing or taking a photo of a person.

Expression
Expression means showing an emotion e.g. happy, sad, moody, shocked.

Facial Features
Eyes, Nose, Mouth

Characterisation
The distinct features of a person eg things in your portrait that show a trueness to the person's character.

Outline
A line, generally black, that goes around the outside of an image.

Symbolism
Using images to suggest specific ideas or feelings e.g. a skull often suggests death.

Identity
The fact of being who you are.

Key Artist

Name
Teesha Moore

Born
1963 in the USA

Materials
Mixed Media (use of lots of different materials) including paper, inks and pen.

Intentions
Uses art as a diary to show her creative ideas.

Art Journals
A journal kept by artists, often containing both words and sketches, and occasionally including mixed media elements such as collages.

Collage
The process of either ripping and sticking pieces of paper to create an artwork or combining several pictures to make one piece of work.

Drama y7 - Greek Theatre

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.

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.

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 incharge 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.

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Drama - Base work

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.

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.

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 ue 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 my talk to or ask the audience questions about what is happening in the performance.

Example Self-evaluation

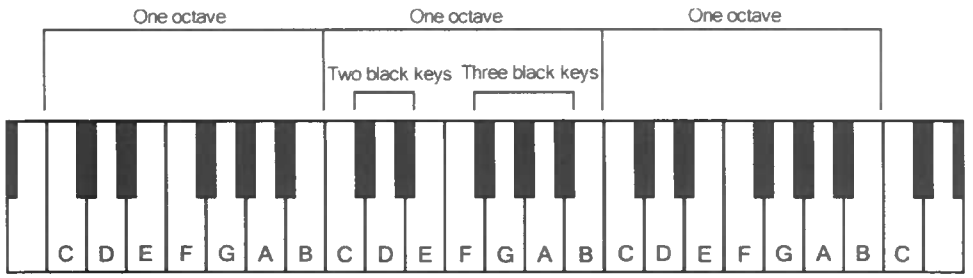
STRENGTH During my performance, I wanted to show how my character was really angry with another character. To do this, I scrunched my eyebrows together and tilted my head slightly forward, using facial expression to show my annoyance. I also had a very big frown and narrowed whilst making a low pitched 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.

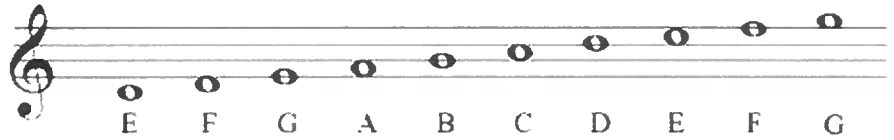
AREA FOR IMPROVEMENT During my performance, I wanted to show how my character was really happy to see someone. To do this, I slowly waved my hand and had a slight smile on my face whilst quietly saying 'Hello' in a soft tone. My intention was to show how I was happy but wanted to show it in a subtle 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.

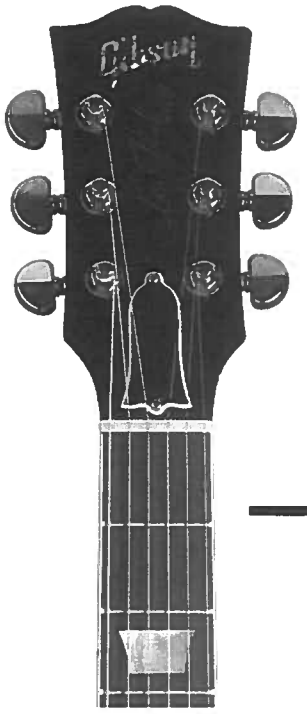
MUSIC - The Elements of Music

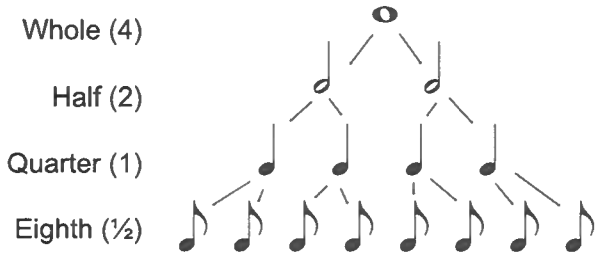
Key Terminology

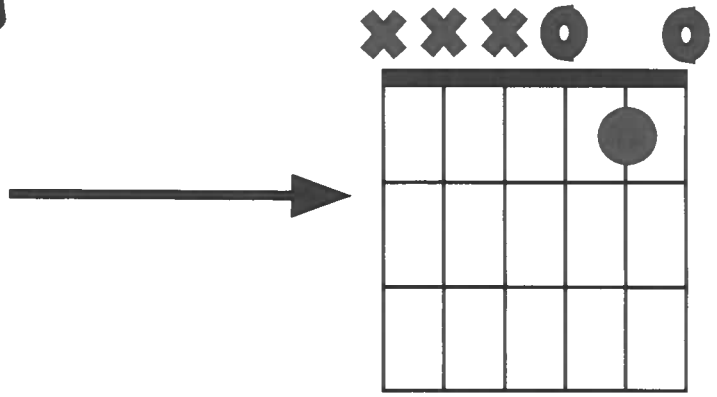
Conductor - A person who directs the performance.
Note - A singular sound.
Chord - A group of three or more notes played at the same time.
Harmony - Different notes played or sung together.
Melody - A small arrangement of notes that make a tune.
Scale - A series of eight notes starting somewhere between 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...***

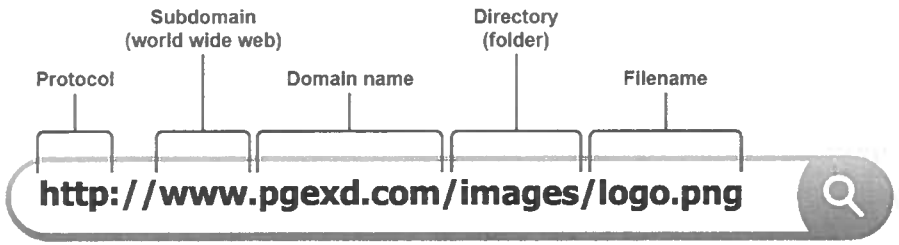
Year 7 Unit 3 -Networks

Lesson 1

Explain what the Internet and World Wide Web are and how they differ.

The Internet is a worldwide collection of interconnected networks. The World Wide Web is one service that makes use of the Internet to distribute web pages

Describe the components of a web address



Describe what a protocol is and the use of HTTP for transfer of web pages.

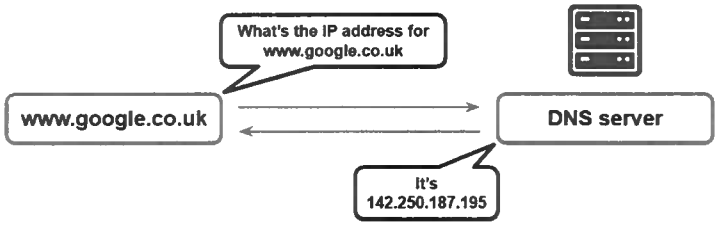
A set of rules that computers use to send and receive web pages

Explain how packet switching works and be able to simulate it to send information

To send data through the Internet, it is first split into packets. Each packet has a number and may be sent by a different route through the Internet. bThe packets may arrive at different times

What is the purpose of DNS servers?

DNS servers translate a domain name to its address



IP

Keywords

Internet - The Internet is a worldwide collection of interconnected networks

WWW - The World Wide Web is one service that makes use of the Internet to distribute web pages

HTTP - Hypertext transfer protocol

Protocol - A set of rules.

IP address - Each computer on the Internet has its own IP address

DNS - DNS servers translate a domain name to its IP address

Data packet - A small part of a file that is sent across the internet.

Bandwidth

The amount of data which can be transferred through a cable each second.

LAN

Local area network

WAN

Wide area network

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Lesson 2	**What are the different types of network media?** Copper cable (twisted pair), fibre optic cable, coaxial cable Wireless **What is Bandwidth and how does it affect file transfer time?** The amount of data which can be transferred through a cable each second is known as its bandwidth. Today, modern home Internet connections typically have a bandwidth of 100 Mb/s **How is the time taken to download files of different sizes at different bandwidths calculated?** • First convert Mb/s to MB/s 100 megabits per sec = 100 / 8 = 12.5 megabytes per sec • Now calculate the number of seconds needed 300 megabytes / 12.5 megabytes per sec = 24 seconds **Explain why streaming video and audio uses buffering.** When streaming video or music, the first few seconds will be stored in a buffer. If there is a temporary loss or reduction in the internet connection the video or audio can still play. If the internet connection isn't fast enough, the video or audio will keep on pausing whilst the buffer is filled up.	**Network Interface Card (NIC)** Each computer or device needs a network interface card (NIC) to connect to a network. **Switch** These have many ports which computer cables connect to allowing them to communicate with each other **Router** These look at the packets of data and route them towards their destination They are used to connect a LAN to the Internet **Wireless Access point (WAP)** These allow wireless devices to connect to the
Lesson 3	**Explain the difference between LANs and WANs.** Local area networks consist of computers connected in a small geographical area. Wide Area Networks (WANs) are where two or more LANs are connected together **Be able to give examples of each type of network** LAN - Examples include computers in an office building, school, library or local shop WAN - For instance, a business could have offices in London and Manchester **What hardware is required to build a LAN?** Switch, Router and WAP **Identify different network topologies including:** **Bus network -** A bus network has one cable which all other computers and devices connect to. **Star network -** A star network has a central switch or hub which all computers and devices connect to.	
Lesson 4	**Explain the term - Client-server model.** When a user makes a request for a web page the client-server model is used. In this model the client is the user's computer with a web browser. There is a server which responds to the request. **Explain the term - Peer to peer network** Peer-to-peer networks (P2P) have many devices which are shared on the network. Devices are connected to computers which form a peer. Each peer can access the resources of other peers.connected to the laptop **Explain the term - Cloud computing** The Cloud is essentially another name for the Internet. Cloud computing covers services that are offered via the Internet including: office software,file storage, employee and student management systems	

Be able to give some advantages and disadvantages for each of the above terms.

Model	Advantages	Disadvantages
Client-server	Servers have a central location which makes them easier to: backup, administer, keep secure	If the server fails, then no-one can access the services that it offers. There is a cost in buying the server
Peer to peer	Existing hardware such as a printer can be shared with other computers on the network. Files on any computer can be shared. No dedicated server hardware needs to be bought. No single point of failure – if one computer fails, files on the other computers are still available.	It is harder to backup data as every computer needs its own backup system. It is less secure as every computer needs to be secured. Hard to administer as there is no central point to the network

Lesson 5

Describe the purpose of encryption.

Encryption is encoding data in such a way that it can only be understood by using a key or password.

Explain how a Caesar cipher is used to encrypt and decrypt data.

A Caesar cipher replaces each letter of a message with a letter further on in the alphabet. If my key was set to 3 then the letter A would be encrypted as the letter D. The letter W would become Z.

Explain how encryption works with websites.

Encryption works by taking a plaintext file and then using an encryption key to encrypt it. The key could be a password. Once encrypted the cipher text cannot be understood. The receiver then uses a key to decrypt the file

How would you check the TLS/SSL certificate of websites?

If a web page is encrypted when it is sent, then you can click the padlock. This shows you a security certificate which allows you to see if the person sending the web page is who you think they are

Year 7 Unit 6 -Computer crime

Lesson 1

Describe the Computer Misuse Act and what computer activities are illegal.

The Computer Misuse Act makes it illegal to:

- Gain unauthorised access to a computer system
- Gain unauthorised access to files
- Prevent or hinder access to a computer program or data on a computer
- Impair the operation of programs or data

What is meant by hacking?

Hacking is illegally accessing a computer or data without permission

List different types of malware.

- Virus
- Worm
- Trojan horse
- Keylogger

Describe ways to protect yourself from malware.

- Only download files from well-known sites
- Avoid illegal download sites, such as music or software sharing sites
- Use antivirus software and anti-spyware software
- Run all updates for your operating system (such as Windows), browser software and other software
- Be very careful when opening attachments in email – even Office documents may be harmful
- Use strong passwords to protect your operating system

Lesson 2

What is personal data?

Personal data is data which is linked to a person.

Personal data	**Not personal data**
First name Mobile number The date of your last visit to a doctor	The postcode of a school The name of a local beach Number of students in a school

Who holds personal data about you and why do they need to hold it?

- Your school	- Your email provider	- An online shop that you use	- Most search engine providers
- Banks	- Social media companies	- Cloud service providers	- Mobile phone companies

Hacking
Hacking is illegally accessing a computer or data without permission

Malware
It is a small program which enters a computer or network through a downloaded file, external storage (such as a USB stick) or a vulnerability in a computer network

Antivirus
A piece of software that tries to prevent / remove and limit the damage that viruses can cause.

Ransomware
Ransomware encrypts all the files on a computer preventing users from accessing them.

Personal data
Data about people such as name, date of birth

Data Protection Act (2018):
The UK law protecting personal data

Identity theft:
Using personal information to pretend to be someone else. Typically used to commit fraud

	What is identity theft? ID theft (identity theft) is how criminals find information about you which may be used to pretend they are you. **Describe how to minimise the risk of identity theft?** • Shredding documents that contain any personal information • Using strong passwords for any computers or online services • Limiting personal information that is shared on social media • Encrypting hard drives and removable storage	**Shoulder surfing** Obtaining personal information, such as passwords, by looking over someone's shoulder **Information Commissioner's Office (ICO)** The organisation that makes sure companies and people are correctly collecting and using personal data; it may issue fines if data is misused **Phishing** Attempting to get personal information from users **Advance fee fraud** A fraud which promises large sums of money, but needs an upfront fee before it can be sent **Malware generated email** Malware which sends email to contacts in a user's address book **Strong password** Passwords that are hard to crack **Brute force attack** Trying all combinations of a password **Dictionary attacks** Trying to crack a password by trying each word in a dictionary
Lesson 3	**Describe how to create strong passwords.** • Make the password long e.g., more than 14 characters • Don't use any personal information in the password • Use special characters such as: #9^&$£ • Use random letters • Use uppercase and lowercase letters **Explain how a dictionary attack works.** A computer will check every word in the dictionary to see if it finds a match. **Learn about different types of email scam including:** **Phishing** Phishing emails attempt to trick you into handing over sensitive or personal information **Trojan horse and malware** Trojan horses are a type of malware which is disguised as a legitimate program **Advanced fee fraud** In the advance fee fraud, the scam involves promising a large amount of money to the user. IIn order to get the money, the victim needs to make a small payment first **Virus generated spam** It is possible for some malware such as viruses to generate spam from a home or business computer	
Lesson 4	**What does the term copyright protected mean?** Copyright law protects the owner of a creative work from having it illegally copied **What works are covered by copyright protection?** • Television broadcasts • Books • Magazines and layout designs • Films, Blu-ray and DVDs	

How long does copyright last?

Type of work	Length of copyright
Books, music and art	70 years after the creator's death
Films	70 years after the death of the last of the director, script writer or composer of the music
TV and radio broadcasts	50 years from the broadcast date
Music recordings	70 years from the first published date

Be able to identify breaches of copyright and how they are detected.

- A friend sends you a copyrighted song, and you then forward this to all your friends
- You add a copyrighted music track from an MP3 to a home video. Although you paid to download the MP3, the licence was for home use. However, you publish the video on YouTube
- You take a copyrighted image off the web and include it in a presentation you are creating for work

Describe the damages that breaches cause.

Copyright infringement deprives people of an income and careers. The following are some of the people that are affected by copyright infringement:

- Music artists and actors
- Directors, film crew, producers
- Recording studio technicians
- Authors
- Photographers

Copyright protection
Copyright law protects the owner of a creative work from having it illegally copied.

Copyright infringement
If you do something against copyright law, it is called copyright infringement.

Plagiarism
Plagiarism means copying someone else's work and presenting it as your own.

Lesson 5

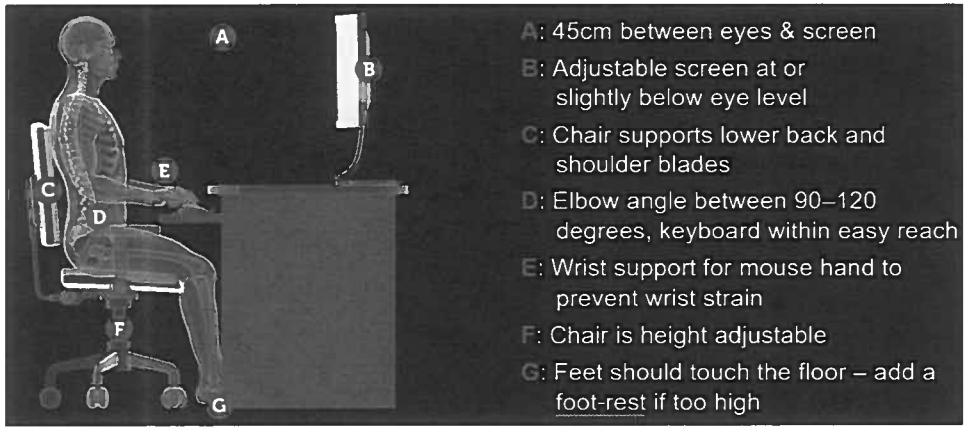
Describe some of the common health and safety problems associated with computer use.

Headaches and eyestrain - Computers, televisions, smartphones and tablets can all lead to headaches and eyestrain

Posture - Back problems can arise from poor posture and sitting in one position for hours at a time

Repetitive Strain Injury - Repetitive Strain Injury (RSI) is caused by repeating the same actions over and over

Describe ways of avoiding these problems.



Discuss Health and Safety regulations

Employers have a duty to:

- Ensure the health and safety of their workers
- Ensure the safety of the workplace
- Avoid risks to the health and safety of non-employees