Fowey River Academy
Year 9 Knowledge Organiser

Autumn Quadmester

Memory Mat

Year 9 Natural Forms

Natural Forms - items inspired by nature, seeds, plants, flowers, etc.

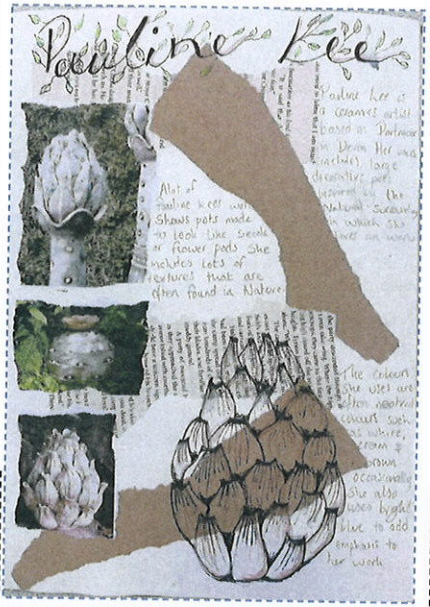
Key words

Malleable - to shape/form a material.

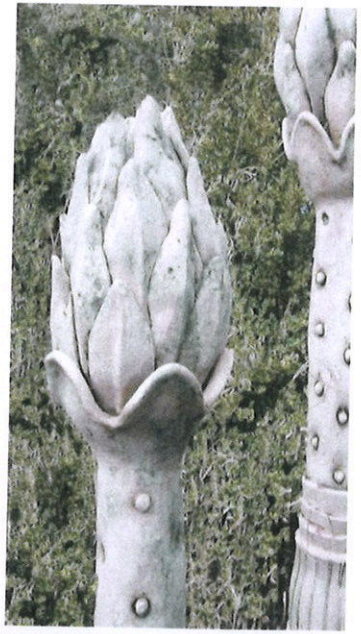
Manipulated - changed, moulded into a different shape.

Kiln - a heated ceramics oven.

Retain - keep the shape/form that you have given it.



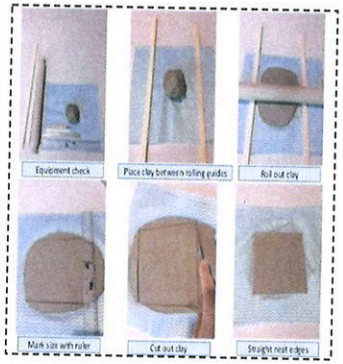
Clay is a natural substance is found in soil, when mixed with chemicals it becomes a malleable substance that can be manipulated into different shapes. When heated in a kiln it will then retain that shape.



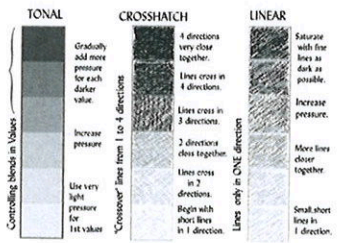
How to connect clay.

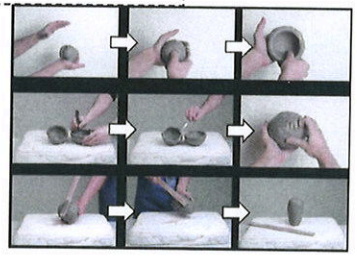
SCORE and SLIP.

In order to connect two piece of clay you need to scratch each one to 'rough up' the edges. Then apply 'slip' which is very wet clay. This acts like glue and when it dries it will secure the two pieces of clay together.



Coil Pots - using rolled coils wrapped around in a circle built up to create a pot shape.





Pinch Pots - using a ball of clay, place in in your hand and push your thumb into the centre. Then using thumb and forefinger pinch the pot together until you create a dome/bowl shape.

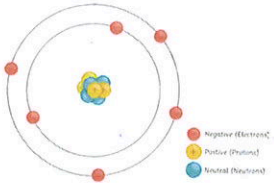
Slab Pots - using rolled flat pieces of clay, connected together to create a solid structure.

Atomic Structure and the Periodic Table – Foundation and Higher

Atoms

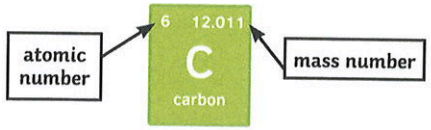
Contained in the nucleus are the **protons** and **neutrons**. Moving around the nucleus are the **electron** shells. They are negatively charged.

Particle	Relative Mass	Charge
proton	1	+1
neutron	1	0
electron	Very small	-1



Overall, atoms have no charge; they have the same number of protons as electrons. An ion is a charged particle - it does not have an equal number of protons to electrons.

Atomic Number and Mass Number



Elements

Elements are made of atoms with the same atomic number. Atoms can be represented as symbols.

N = nitrogen **F** = fluorine **Zn** = zinc **Ca** = calcium

Isotopes – an isotope is an element with the **same number of protons** but a **different number of neutrons**. They have the same atomic number, but different mass number.

Isotope	Protons	Electrons	Neutrons
$^{1}_{1}H$	1	1	1 - 1 = 0
$^{2}_{1}H$	1	1	2 - 1 = 1
$^{3}_{1}H$	1	1	3 - 1 = 2

Compounds – a compound is when two or more elements are chemically joined. Examples of compounds are carbon dioxide and magnesium oxide. Some examples of formulas are CO_2, NaCl, HCl, H_2O, Na_2SO_4. They are held together by chemical bonds and are difficult to separate.

Equations and Maths

To calculate the relative atomic mass, use the following equation:

relative atomic mass (A_r) =

$$\frac{\text{sum of (isotope abundance} \times \text{isotope mass number)}}{\text{sum of abundances of all isotopes}}$$

Balancing Symbol Equations

There must be the same number of atoms on both sides of the equation:

$CH_4 + 2O_2 \rightarrow 2H_2O + CO_2$

C = 1

O = 4

H = 4

Chemical Equations

A chemical reaction can be shown by using a **word equation.**

e.g. magnesium + oxygen → magnesium oxide

On the left-hand side are the reactants, and the right-hand side are the products.

They can also be shown by a **symbol equation.**

e.g. $2Mg + O_2 \rightarrow 2MgO$

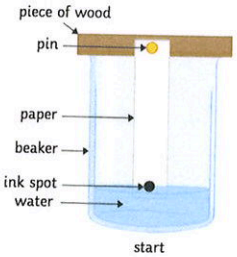
Equations need to be **balanced,** so the same number of atoms are on each side. To do this, numbers are put in front of the compounds.

$CH_4 + \mathbf{2}O_2 \rightarrow \mathbf{2}H_2O + CO_2$

Mixtures, Chromatography and Separation

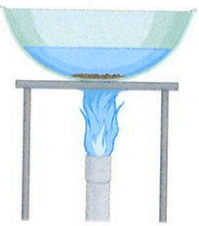
Mixtures – in a mixture there are no chemical bonds, so the elements are easy to separate. Examples of mixtures are air and salt water.

Chromatography – to separate out mixtures.



Filtration – to separate solids from liquids.

Evaporation – to separate a soluble salt from a solution; a quick way of separating out the salt.



Crystallisation - to separate a soluble salt from a solution; a slower method of separating out salt.

Separating out salt from rock salt:

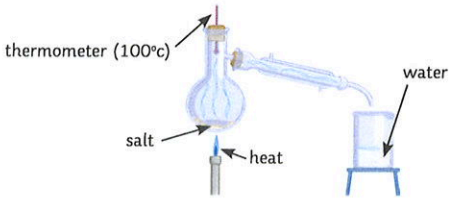
1. Grind the mixture of rock salt.
2. Add water and stir.
3. Filter the mixture, leaving the sand in the filter paper
4. Evaporate the water from the salt, leaving the crystals.

Atomic Structure and the Periodic Table – Foundation and Higher

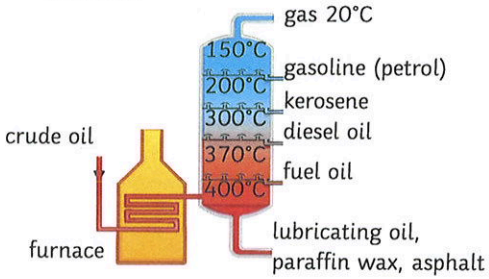
Distillation

To separate out mixtures of liquids.

1. **Simple distillation** – separating a liquid from a solution.



2. **Fractional distillation** – separating out a mixture of liquids. Fractional distillation can be used to separate out crude oil into fractions.



Metals and Non-metals

They are found at the **left** part of the periodic table. Non-metals are at the **right** of the table.

Metals

Are strong, malleable, good conductors of electricity and heat. They bond metallically.

Non-Metals

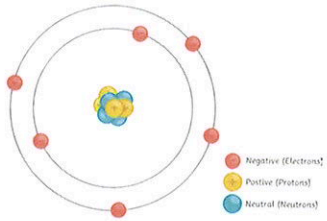
Are dull, brittle, and not always solids at room temperature.

History of the Atom

Scientist	Time	Discovery
John Dalton	start of 19th century	Atoms were first described as solid spheres.
JJ Thomson	1897	Plum pudding model – the atom is a ball of charge with electrons scattered.
Ernest Rutherford	1909	Alpha scattering experiment – mass concentrated at the centre; the nucleus is charged. Most of the mass is in the nucleus. Most atoms are empty space.
Niels Bohr	around 1911	Electrons are in shells orbiting the nucleus.
James Chadwick	around 1940	Discovered that there are neutrons in the nucleus.

Electronic Structure

Electrons are found in shells. A maximum of two in the most inner shell, then eight in the 2nd and 3rd shell. The inner shell is filled first, then the 2nd then the 3rd shell.



Group 7 Elements and Noble Gases

Halogens

The halogens are **non-metals**: fluorine, chlorine, bromine, iodine. As you go down the group they become less reactive. It is harder to gain an extra electron because its outer shell is further away from the nucleus. The melting and boiling points also become higher.

Noble Gases

The **noble gases** (**group 0** elements) include: **helium**, **neon** and **argon**. They are un-reactive as they have full outer shells, which makes them very stable. They are all colourless gases at room temperature.

The boiling points all increase as they go down the group – they have greater intermolecular forces because of the increase in the number of electrons.

Development of the Periodic Table

In the early 1800s, elements were arranged by atomic mass. The periodic table was not complete because some of the elements had not been found. Some elements were put in the wrong group.

Dimitri Mendeleev (1869) left gaps in the periodic table. He put them in order of **atomic mass**. The gaps show that he believed there was some undiscovered elements. He was right! Once found, they fitted in the pattern.

The Modern Periodic Table

Elements are in order of **atomic mass/proton number**. It shows where the metals and non-metals are. **Metals** are on the **left** and **non-metals** on the **right**. The **columns** show the **groups**. The **group number** shows the number of **electrons** in the **outer shell**. The rows are **periods** – each period shows another full shell of electrons.

The periodic table can be used to predict the reactivity of elements.

Alkali Metals

The alkali metals (**group 1** elements) are soft, very reactive metals. They all have **one electron** in their **outer shell**, making them **very reactive**. They are **low density**. As you go down the group, they become more reactive. They get bigger and it is easier to lose an electron that is further away from the nucleus.

They form ionic compounds with non-metals.

They react with water and produce hydrogen.

E.g.

lithium + water → lithium hydroxide + hydrogen

$2Li + 2H_2O \rightarrow 2LiOH + H_2$

They react with chlorine and produce a metal salt.

E.g.

lithium + chlorine → lithium chloride

$2Li + Cl_2 \rightarrow 2LiCl$

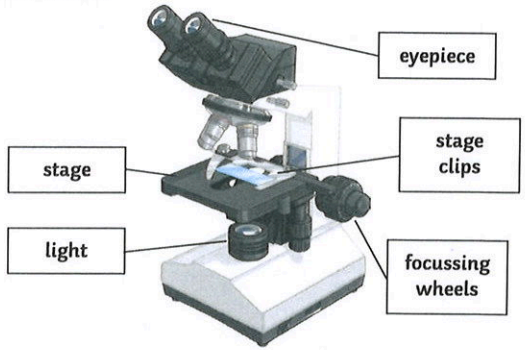
They react with oxygen to form metal oxides.

Cell Biology Knowledge Organiser – Foundation and Higher

Required Practical

Microscopy Required Practical

- Includes preparing a slide, using a light microscope, drawing any observations – use a pencil and label important observations.



Osmosis and Potato Practical

- Independent variable – concentration.
- Dependent variable – change in mass.
- Control variable – volume of solution, temperature, time, surface area of the potato.

The potato in the sugar solution will lose water and so will have less mass at the end; the potato in the pure water solution will gain water.

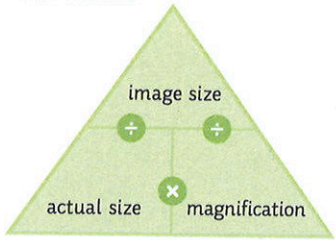
Specialised Cells

When a cell changes to become a specialised cell, it is called differentiation.

Specialised Cell	Function	Adaptation
sperm	To get the male DNA to the female DNA.	Streamlined head, long tail, lots of mitochondria to provide energy.
nerve	To send electrical impulses around the body.	Long to cover more distance. Has branched connections to connect in a network.
muscle	To contract quickly.	Long and contain lots of mitochondria for energy.
root hair	To absorb water from the soil.	A large surface area to absorb more water.
phloem	Transports substances around the plant.	Pores to allow cell sap to flow. Cells are long and joined end-to-end.
xylem	Transports water through the plant.	Hollow in the centre. Tubes are joined end-to-end.

Equations and Maths

Equation



Maths Skills

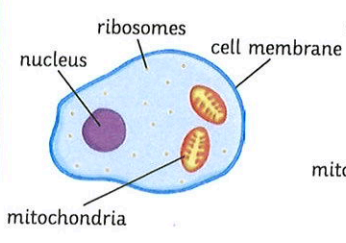
Conversions:
Micrometres to millimetres: divide by 1000.

Standard Form:
$0.003 = 3 \times 10^{-3}$

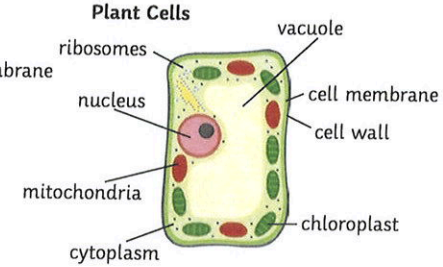
$5.6 \times 10^{-5} = 0.0056$

Prokaryotic and Eukaryotic Cells

Animal Cells



Plant Cells

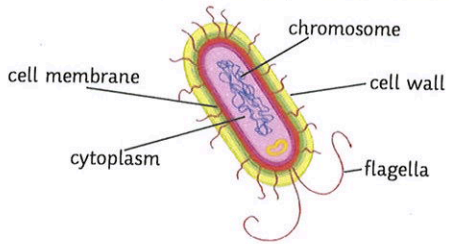


Plant and animal cells have similarities and differences:

	Animal	Plant
nucleus	✓	✓
cytoplasm	✓	✓
chloroplast	X	✓
cell membrane	✓	✓
permanent vacuole	X	✓
mitochondria	✓	✓
ribosomes	✓	✓
cell wall	X	✓

Bacterial Cells

Bacterial cells do not have a true nucleus, they just have a single strand of DNA that floats in the cytoplasm. They contain a plasmid.

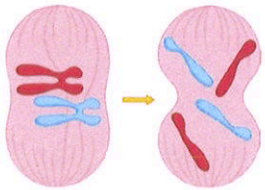


Chromosomes and Mitosis

In the nucleus of a human cell there are 23 pairs of **chromosomes**. Chromosomes contain a double helix of **DNA**. Chromosomes have a large number of genes.

The **cell cycle** makes new cells.

Mitosis: DNA has to be **copied/replicated** before the cell carries out mitosis.



Key Vocabulary

active transport
alveoli
chromosome
diffusion
eukaryotic
gas exchange
mitosis
multicellular
osmosis
prokaryotic
undifferentiated
replicated
specialised
villi

Stem Cells

Embryonic stem cells are **undifferentiated** cells, they have the potential to turn into any kind of cell.

Adult stem cells are found in the bone marrow, they can only turn into some types of cells e.g. blood cells.

Uses of stem cells:

- Replacing faulty blood cells;
- making insulin producing cells;
- making nerve cells.

Some people are against stem cell research.

For Stem Cell Research	Against Stem Cell Research
Curing patients with stem cells - more important than the rights of embryos.	Embryos are human life.
They are just using unwanted embryos from fertility clinics, which would normally be destroyed.	Scientists should find other sources of stem cells.

Stem Cells in Plants

In plants, stem cells are found in the **meristem**. These stem cells are able to produce clones of the plant. They can be used to grow crops with specific features for a farmer, e.g. **disease resistant.**

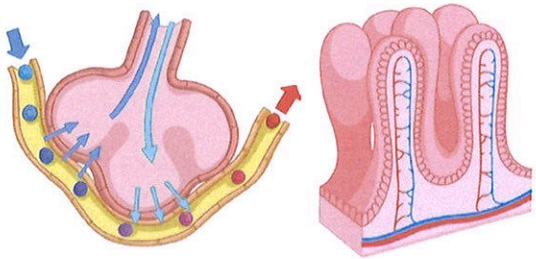
Exchange – Humans

Multicellular organisms have a large surface are to volume ratio so that all the substances can be exchanged.

Gas exchange: Lungs

The alveoli are where gas exchange takes place.

They have a large surface area, moist lining, thin walls and a good blood supply.

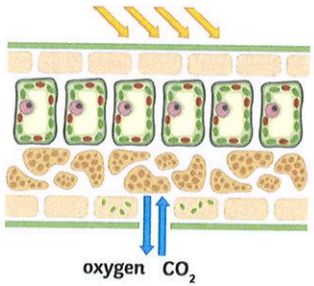


Villi: Small Intestine

Millions of villi line the small intestine increasing the surface area to absorb more digested food.

They are a single layer of cells with a good blood supply.

Exchange in Plants



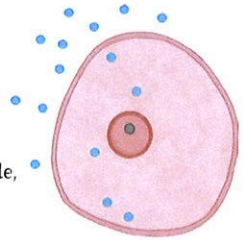
The surface of the leaf is flattened to increase the surface area for more gas exchange by diffusion.

Oxygen and water vapour diffuse out of the stomata. Guard cells open and close the stomata, controlling water loss.

Key Processes

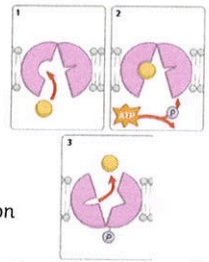
Diffusion is the spreading out of particles from an area of higher concentration to an area of lower concentration.

Cell membranes are semi-permeable, only small molecules can get through.



Cell Diffusion

Osmosis is the movement of water molecules across a partially permeable membrane from a region of higher concentration to a region of lower concentration.

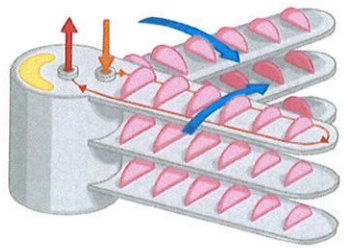


Active transport is the movement of substances against the concentration gradient. This process requires energy from respiration.

Active Transport in Cells

Exchange in Fish

Fish have a large surface area for gas exchange. These are called **gills.** Water enters the fish through the mouth and goes out through the gills. The oxygen is transported from the water to the blood by **diffusion**. Carbon dioxide diffuses from the blood to the water. Each gill has **gill filaments** which give the gills a large surface area. **Lamellae** cover each gill filament to further increase the surface area for more gas exchange. They have a **thin surface layer** and **capillaries** for good blood supply which helps with diffusion.



AQA Physics (Combined Science) Unit 6.1: Energy

Required Practical

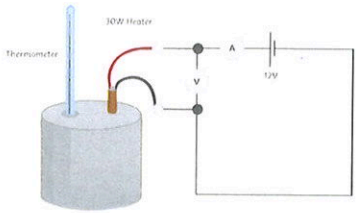
Investigating Specific Heat Capacity

independent variable – material

dependent variable – specific heat capacity

control variables – insulating layer, initial temperature, time taken

$\Delta E = m \times c \times \Delta\theta$



Method:

1. Using the balance, measure and record the mass of the copper block in kg.
2. Wrap the insulation around the block.
3. Put the heater into the large hole in the block and the block onto the heatproof mat.
4. Connect the power pack and ammeter in series and the voltmeter across the power pack.
5. Using the pipette, put a drop of water into the small hole.
6. Put the thermometer into the small hole and measure the temperature.
7. Switch the power pack to 12V and turn it on.
8. Read and record the voltmeter and ammeter readings – during the experiment, they shouldn't change.
9. Turn on the stop clock and record the temperature every minute for 10 minutes.
10. Record the results in the table.
11. Calculate work done and plot a line graph of work done against temperature.

Equations

$E = \frac{1}{2}mv^2$

$E_p = mgh$

$E_e = \frac{1}{2}ke^2$

$\Delta E = m \times c \times \Delta\theta$

$P = \frac{E}{t}$

$P = \frac{W}{t}$

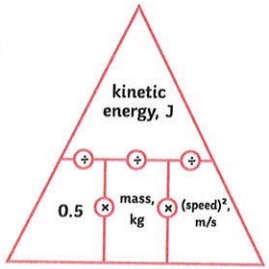
Kinetic and Potential Energy Stores

Movement Energy

kinetic energy = $\frac{1}{2}$ x mass × speed^2

$$E_k = \frac{1}{2}mv^2$$

(J) (kg)(m/s)

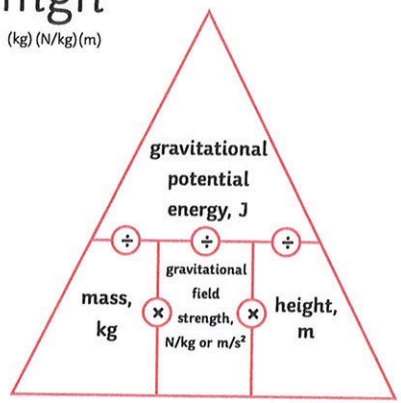


When something is off the ground, it has gravitational potential energy

gravitational potential energy = mass x gravitational field strength x height

$$E_p = mgh$$

(J) (kg) (N/kg)(m)



When an object falls, it loses gravitational potential energy and gains kinetic energy.

Stretching an object will give it elastic potential energy.

elastic potential energy = $\frac{1}{2}$ × spring constant × extension^2

$$E_e = \frac{1}{2}ke^2$$

(J) (N/m) (m)

Transferring Energy by Heating

Heating a material transfers the energy to its thermal energy store - the temperature increases.

E.g. a kettle: energy is transferred to the thermal energy store of the kettle. Energy is then transferred by heating to the waters thermal energy store. The temperature of the water will then increase.

Some materials need more energy to increase their temperature than others.

change in thermal energy = mass × specific heat capacity × temperature change

$$\Delta E = m \times c \times \Delta\theta$$

(J) (kg) (J/kg°C) (°C)

Specific heat capacity is the amount of energy needed to raise the temperature of 1kg of a material by 1 °C.

Energy Stores and Systems

Energy Stores	
kinetic	Moving objects have kinetic energy.
thermal	All objects have thermal energy.
chemical	Anything that can release energy during a chemical reaction.
elastic potential	Things that are stretched.
gravitational potential	Anything that is raised.
electrostatic	Charges that attract or repel.
magnetic	Magnets that attract or repel.
nuclear	The nucleus of an atom releases energy.

Energy can be transferred in the following ways:

mechanically – when work is done;

electrically – when moving charge does work;

heating – when energy is transferred from a hotter object to a colder object.

Conservation of Energy

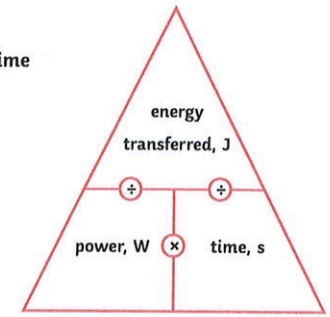
Energy can never be created or destroyed, just transferred from one form to another. Some energy is transferred usefully and some energy gets transferred into the environment. This is mostly wasted energy.

Power

Power is the rate of transfer of energy – the amount of work done in a given time.

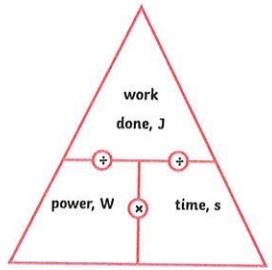
power = energy transferred ÷ time

P (W) = E (J) ÷ t (s)



power = work done ÷ time

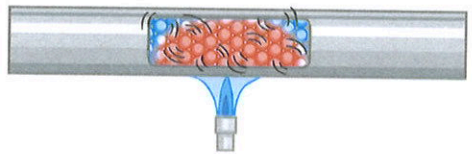
P (W) = W (J) ÷ t (s)



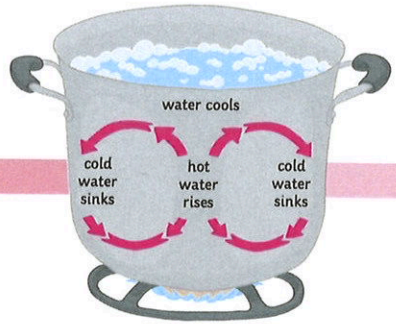
Energy Transfer

Lubrication reduces the amount of friction. When an object moves, there are frictional forces acting. Some energy is lost into the environment. Lubricants, such as oil, can be used to reduce the friction between the surfaces.

Conduction – when a solid is heated, the particles vibrate and collide more, and the energy is transferred.

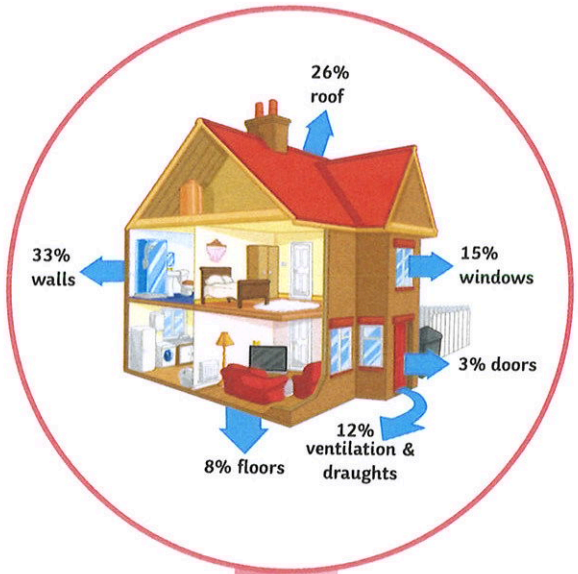


Convection – when a liquid or a gas is heated, the particles move faster. This means the liquid or gas becomes less dense. The denser region will rise above the cooler region. This is a convection current.



Insulation – reduces the amount of heat lost. In your home, you can prevent heat loss in a number of ways:

- thick walls;
- thermal insulation, such as:
- loft insulation (reducing convection);
- cavity walls (reduces conduction and convection);
- double glazing (reduces conduction).

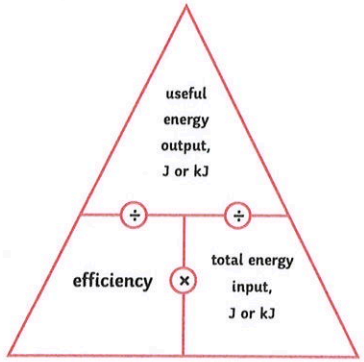


Efficiency

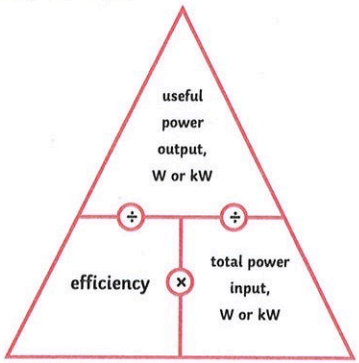
When energy is transferred, some energy is wasted. The less energy that is wasted during the transfer, the more efficient the transfer.

There are two equations to calculate efficiency:

$$\text{efficiency} = \frac{\text{useful output energy transfer}}{\text{total input energy transfer}}$$



$$\text{efficiency} = \frac{\text{useful power output}}{\text{total power input}}$$



Some energy is always wasted. Nothing is 100% efficient.

Efficiency

Non-renewable – coal, oil, gas - they will all run out, they damage the environment, but provide most of the energy.

Renewable – they will never run out, can be unreliable and do not provide as much energy.

Energy Resource	Advantages	Disadvantages
solar – using sunlight	Renewable, no pollution, in sunny countries it is very reliable.	Lots of energy needed to build, only works during the day, cannot increase power if needed.
geothermal – using the energy of hot rocks	Renewable and reliable as the rocks are always hot. Power stations have a small impact on environment.	May release some greenhouse gases and only found in specific places.
wind – using turbines	Renewable, no pollution, no lasting damage to the environment, minimal running cost.	Not as reliable, do not work when there is no wind, cannot increase supply if needed.
hydroelectric – uses a dam	Renewable, no pollution, can increase supply if needed.	A big impact on the environment. Animals and plants may lose their habitats.
wave power – wave powered turbines	Renewable, no pollution.	Disturbs the seabed and habitats of animals. Unreliable.
tidal barrages – big dams across rivers	Renewable, very reliable, no pollution.	Changes the habitats of wildlife, fish can be killed in the turbines.
biofuels	Renewable, reliable, carbon neutral.	High costs, growing biofuels may cause a problem with regards to space, clearance of natural forests.
non-renewable – fossil fuels	Reliable, enough to meet current demand, can produce more energy when there is more demand.	Running out, release CO_2, leading to global warming, and also release SO_2 which causes acid rain.

Trends in energy resources – most of our electricity is generated by burning fossil fuels and nuclear. The UK is trying to increase the amount of renewable energy resources. The governments are aware that non-renewable energy resources are running out; targets of renewable resources have been set. Electric and hybrid cars are also now on the market.

However, changing the fuels we use and building renewable power plants cost money. Many people are against the building of the plants near them and do not want to pay the extra in their energy bills. Hybrid and electric cars are also quite expensive.

AQA English Language Paper 2 Section A

Knowledge Organiser

What are the differences between Language Paper 1 and Paper 2?

Paper 1 focused on **fiction** texts, so stories that aren't about real people or events – at least elements of them will be mean created in the writer's imagination.

Paper 2 focuses on **non-fiction** texts so the writers are looking at real events, people and places. Rather than creating a story to entertain or engage the reader, the two texts you get in the exam will be there to make you think, challenge the way you think about a topic now; try to persuade you to think something, to argue the case for something, or to explain ideas.

Paper 2 has **two texts** for you to study and analyse because normally the two texts have very different **attitudes and perspectives**. This allows you to think about how these attitudes might be similar or different, but to **compare** how the writers use language and structure to get across their ideas to their readers.

Normally one of the texts in the exam is from a very different time, so from the Victorian period or earlier. This is an important factor to think about as a writer making texts in that period will probably be looking at topics in a very different way to a writer from our own time period.

Purpose:	WRITING TO ARGUE	WRITING TO PERSUADE	WRITING TO ADVISE	WRITING TO EXPLAIN/INFORM
What is it?	Giving the case for one side of a debate	Convincing someone that your opinion is right	Providing ways forward for someone.	Explaining your opinion on a topic to your reader.
What does it involve?	Being aware of the other side of a debate	Using your language to convince your leader.	Not telling someone what to do but giving them options.	You are not convincing people or advising.
What key features do you often find in this type of writing?	Includes counter-arguments, rhetorical questions, facts, statistics, emotive language	Includes triplets, repetition, emotive language, rhetorical questions, direct address and more…	Includes modal verbs, imperatives, an understanding tone but one that is direct. Provide helpful information.	Includes facts, opinions, an unbiased and neutral tone.

	Purpose	Audience	Form	Tone
What is it?	Why a text has been written, what the writer was trying to achieve by writing it (see the table above)	The specific people a writer is trying to target through their writing.	A specific type of writing, for instance letters, speeches, essays and so on.	The sound or mood of a piece of writing.
Why is it important?	The purposes of the two texts given to you in the exam can affect how they are written and the particular language features used. For instance, a persuasive article is going to include more DAFORREST techniques, for instance.	The texts you will analyse in the exam won't necessarily be written for you, they maybe written for other people in other places, times, positions and contexts. Reflect on this as you consider what the writer's attitude is and how they address their audience. If they are giving a speech to a group of doctors then their writing will be different comparing to writing a diary entry for themselves.	You may be given two articles in the exam, but you could be given two completely different types of texts (a letter and a speech, for instance). Always consider the types of writing given to you and how this form of writing will impact on style, tone, register, language features, structure and so on.	Understanding the tone of a text in the exam helps you to understand their attitude and perspective better. Are they angry? Are they sad? Are they quite neutral about the topic? The two texts you are given will likely have very different tones.

Beginnings

Endings

How a writer begins and finishes a text is incredibly important. How does a writer engage you right from the start and what kind of thoughts or feelings do they want you to have at the end of the article, letter, speech or essay? Know these different beginnings and endings so you can discuss which ones are being used in the exam text you have been given and what effects you think they have on the reader. Additionally, use can use these techniques in your own writing for Question 5/Section B!

A puzzle! Hook your reader in with something that isn't clear at the beginning, perhaps something unusual has happened?

Direct address. Talk directly to your readers as a way of engaging them.

Visual hook. Use a powerful image or description to engage the reader at the start.

Amusing hook. Use a joke to establish a comedic tone at the beginning of your text. It's a great way to make a reader feel at ease and lure them into a difficult or controversial topic.

Dialogue. Have people talking to each other right from the beginning to establish a relevant example to the topic being discussed.

Subtle hook. Hint at what is going to happen in the rest of the text.

Atmospheric hook. Use your descriptive language to build up a particular tone and atmosphere right at the very beginning. It be using a particular example to engage the reader with the topic of the text.

Cyclical ending: where the ending returns back to the beginning of the text, often using to emphasise the original point.

Twist: a complete change in direction from where the text was going.

Summing up: The writer reflects back on all the topics covered in their text to provide the reader with a summar

Short sentence: Making your final sentence very, very short can leave the readers with one final 'punch' or impactful idea to take away from the whole text.

A final question: Asking the readers a rhetorical question or question at the end of a text means the responsibility or onus is on the reader to make up their own minds.

Repeating examples: A writer could refer back to a specific example they made during their text. For instance, if they spoke about a particular person or place earlier on in the text to provide evidence for their argument, they made decide to repeat that example again for further emphasis:

Maybe if we change our ways, people like Bob would no longer have to suffer.

Reading and Planning (5-10 mins):

Read the sources very carefully. Source A and B.
Annotate for key language techniques and key structural techniques.

Q1 (5 mins, 4 marks):

Shade **FOUR** true statements about a section of the source chosen.
Read the question carefully – make sure you answer for the right part.

Q1: Read again the first part of Source A from lines ___ to ___.
Choose four statements below which are true.
• Shade the circles in the boxes of the ones that you think are true.
• Choose no more than four statements.
• If you make an error cross out the whole box.
• If you change your mind and require a statement that has been crossed out
then draw a circle around the box.
[4 marks]

You're marked on AO1 for this question. The skills being looked at are:
- **Identifying key information**
- **Interpreting a text**
- **Being able to understand explicit (made obvious) and implicit (hinted at or suggested) ideas**
- **Selecting key quotes to support your ideas**

Q2 (10 mins, 8 marks):

This is the summary question.
You need information from **both texts.**
Are you looking at similarities or differences?
Only facts, not opinions.
Include short, regular quotes.
What does each quote tell the reader? Why? Think **Icebergs.**

You need to refer to **Source A** and **Source B** for this question. Use details from both sources to write a summary of the **[similarities/differences]** between _____ and _____.

[8 marks]

You're marked on AO1 for this question. The skills being looked at are:
- **Identifying key information**
- **Interpreting a text**
- **Being able to understand explicit (made obvious) and implicit (hinted at or suggested) ideas – Icebergs!**
- **Selecting key quotes to support your ideas**

Success criteria:
- **Relevant information on the same topic (the differences between the writers' experiences)**
- **Quotes to support ideas.**
- **Connectives to link paragraphs.**
- **Only facts, not opinions.**
- **Icebergs (Explaining what quotes suggest to the reader)**

Adding connectives, to add to your initial ideas:
Moreover
Furthermore
In addition
Additionally
Similarly
As well as this

Contrasting connectives, to show a different perspective or idea:
However
On the other hand
Alternatively
Despite this
In contrast
Conversely
Whereas

Possible sentence starters to use for Q2:

Both sources show very different perspectives on _____. In Source A, the writer shows _____ to be _____ when he says: "…" This shows the reader that… because…

On the other hand, in Source B, the writer shows _____ to be _____ when he says: "…" This shows the reader that… because…

Moreover, in Source A, the writer says: "…" which shows to the reader, because… In comparison, in Source B the writer says: "…" which shows… because…

SEIZE

Q3 (15 mins, 12 marks):

This is a SEIZE question.
It is only **ONE** source.
Read the question carefully – what is it asking you to focus on?
Include quotes, techniques and **effects** of the techniques on the reader.

Q3: You now need to refer only to Source B.
How does the writer use language to try to **[influence/entertain/affect]** their readers?

[12 marks]

You're marked on AO2 for this question. The skills being looked at are:
- **Explaining, commenting on and analysing how a writer uses language in a text to create effects and affect their readers**
- **Within analyses, using key terms and language features to support your ideas**
- **Using specific quotes to support interpretations**

Try to avoid using common terms like 'makes the reader want to read on' or 'it is interesting for the reader'. So many students try to use those and they don't really explain or analyse anything.

What is the writer's **attitude** in the text? What **perspective** are they trying to get across to the reader? Whatever topic has been chosen for your exam, the two texts given to you on that topic will have very different and/or very distinctive views. Work those out and explain how the writer uses language to get across their opinions to the reader.

Success criteria:
This is the SEIZE (Statement, Evidence, Inference, Zoom, Effect) question, so:
- **Make your statement clear.**
- **Use a quote to support your idea.**
- **Make inferences from this quote – two different ones would show a high level of analysis.**
- **Zoom in on a particular word or phrase, identify terminology (if any).**
- **Explain what effect this could have on a reader**

Possible sentence starters to use:

The writer uses a range of techniques to get across their ideas and make them influence the reader. A good example is "…" because it shows the reader that…The technique used in this quote is _____ which emphasises to the reader… In particular, the words "…" and "…" from the quote show the reader that… Therefore, the writer is able to use [technique] to influence his reader about their opinions on _____ [Link].

Use a SEIZE structure of writing for 2-3 SEIZE paragraphs explaining how the writer is able to use different language techniques to influence their readers.

Q4 (25 mins, 16 marks):

This is the comparison question.
L SEIZE C SEIZE.
Make sure you focus on the links between the two texts.
Is it asking you about **similarities or differences?**
Include **connectives** to link your ideas together.
Include analysis of both quotes and techniques for both sources.
Think about **purpose and audience** for each text in this answer.

Success criteria:

This is another language analysis question, but this time you have to **compare** the two texts.
- **L SEIZE C SEIZE**
- **Use connectives to link ideas together,**
- **Ping Pong (Table Tennis) – Switch between texts, don't write in big blocks about each one.**

For Q4 you are assessed on AO3:
Compare writers' ideas and perspectives, as well as how these are conveyed (or got across to reader), across two or more texts

In both sources, … [Link] For instance, in Source A… This is shown with: "…" because.. In particular, the use of _____ [technique] makes clear to the reader that… because… Moreover, the words "…" and "…" help the writer to emphasise that… as…

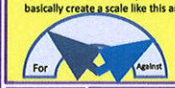
However, in Source B – in comparison to Source A – has a very different attitude, as shown with: "…" because… The use of _____ [technique] makes clear to the reader, unlike in Source A, that… because… Additionally, the words "…" and "…" illustrate to the reader that… which is in contrast to in Source A.

Continue to L SEIZE C SEIZE for another 3/4 comparisons.

Q4) For this question, you need to refer to the whole of **Source A**, together with **Source B.**
Compare how the two writers convey their [similar/different] attitudes to _____.
In your answer, you could:
· compare their different attitudes
· compare the methods they use to convey their attitudes
· support your ideas with references to both texts

[16 marks]

For some students it helps to create **speedometers** when comparing two texts on a similar topic. You basically create a scale like this and place the two texts on the scale, like so:



Normally the exam texts will have very different perspectives on a similar topic, so for instance the topic might be homelessness and one article blames homelessness on the people themselves whereas the other article argues the government and charities should be doing more to help them.

Angry	Relaxed	Calm	Sad
Neutral and balanced			Confused

When you analyse the two texts you've been given, you need to think about several key areas:

Their attitudes (What does each writer think about the same topic? Why?)
Their perspective (How do they see the topic they are talking about? What context were they writing in? Why do you they feel and think the way they do? How does the topic affect them? Why?)
Their tone (Are they angry? Are they sad? Are they confused by what they are talking about? Think carefully about the tone of their writing and how it helps to get across their ideas to the reader).

Language features

It's really important to know as many language features or techniques as you can, but it's even more important to know how they can affect a reader. You might be able to name 10-15 language features really easily, but if you put "it makes the reader want to read on" then you're not really discussing the effects of the feature on the reader. Go one step beyond and learn the effects of different features! If you're really struggling with this, many teachers will talk about DAFORREST which is an acronym made up of different language features used in non-fiction writing.

Simile
Using **like/as** to compare one thing to another.
The man was as tall as a skyscraper.
She moved like a snail!

Similes help readers to picture a particular object, person or place by comparing something they don't know to something they do. They can also be used for **exaggeration.**

Alliteration
This where a number of words begin with the same letter or sound.
The angry, aggressive aardvark ate all the apricots.
Mr W wrote wildly on the whiteboard.

Alliteration creates a memorable sound in the readers' head that means they notice that particular line more or they can remember it quite well. This means it can be used to emphasise a particular point, idea or feeling.

Metaphor
Transforming one thing into another.
He was a *monster truck* on the football field.
She is *over the moon* about her exam results.

Metaphors help readers to picture a particular object, person or place by transforming them into something they understand better. They can also be used for **exaggeration.**

Nouns and Verbs
Nouns are people, places or objects. E.g. table, window, ceiling, computer, Birmingham, etc.
Verbs are actions or 'doing words'. E.g. run, skip, jumping, arguing, shouting, cry, crying, etc.

Both can be used carefully to evoke or give off certain emotions or feelings.

Personification
This is a type of metaphor, where something non-human is described in a human way.
The wind whistled past his face.
The trees danced in the breeze.

Metaphors help readers to picture a particular object or place by transforming them into something they understand better. They can also be used for **exaggeration.**

Adjectives and Adverbs
Adjectives are words that describe **nouns.** E.g. tall, short, wide, skinny, ugly, beautiful, amazing, spectacular, boring, etc.

Adverbs are words that describe **verbs.** E.g. quickly, amazingly, powerfully, slowly, shockingly. They usually end in **ly.**

These are both used to add to descriptions and help build specific images or feelings in the readers' heads.

The terrifying, disgusting, powerful monster quickly and sharply jumped off the building.

Repetition
Repetition is where you repeat a word, phrase or idea again and again.

E.g. "Run! Run! Run!" she shouted at him.

Repetition helps to stick an idea in the readers' heads or helps to emphasise a particular idea or feeling.

Rhetorical questions
This is a question that is asked in order to create a dramatic effect or to make a point rather than to actually get an answer.

Example: Why had they put me in this place?

Direct Address
This is where a writer will speak directly to their readers in their writing, often using the pronoun 'you'.

You must see that this kind of inaction is wrong, you can do something to change it.

Direct address makes the reader feel involved in the text, that they have a sense of responsibility for the topic the writer is explaining, arguing or persuading about. Direct address is a very common technique used in speeches as well.

Facts and Statistics
These are used to make a piece of writing sound more serious or official.
Statistics and facts back up opinions and make them
E.g. 2 out of 3 people decide up on the spot.

Opinions
It's important to know the differences between facts and opinions when it comes to Paper 2. An opinion is a belief that cannot be proven, but facts are statements of truth that can be proven.

Liverpool are the best team in the world – opinion
Liverpool beat Crystal Palace 4-3 in January 2019 – fact

How do the writers in your two exam texts use facts and opinions? Do they get across a sense of bias or seeming to favour one side of an argument?

Hyperbole
Exaggerated ideas that aren't meant to be taken literally or at face value.

Example: This is the worst day of my life.

You see, it probably isn't the worst day of your life, but the use of hyperbole accentuates the point that this was an awful day.

Triplets
Sometimes these are called 'rules of three' or 'triplets', but they all mean the same thing: three ideas in a row.

Example: England were rampant, ferocious and destructive against Ireland in the Six Nations

Putting three adjectives or ideas together provides emphasis, exaggeration and simply sounds pleasant to the ear. It's true!

Emotive language
This is a term for any words that try to evoke emotions from the reader, so to make them feel guilty, sad or responsible. Like so:

Homelessness is a cruel nightmare that robs people of their dignity – it is hard to believe ordinary people could lead such atrocious lives in the 21st century.

Emotive language is very useful for emphasis and exaggeration but also in winning over a read to your ideas.

Accentuates
Illustrates
Highlights
Exaggerates
Draw attention to
Focuses the reader on…
Maintains
Underscores

Source A
Source B
Source A
Source B

Adding connectives, to add to your initial ideas:
Moreover
Furthermore
In addition
Additionally
Similarly
As well as this

Contrasting connectives, to show a different perspective or idea:
However
On the other hand
Alternatively

You could call this PALT if you really wanted to!

Because you are being marked on your **comparisons** in this question, you want to avoid the trap of writing a massive chunk of writing on the first source and then move on to the next. You want to play 'ping pong', where you keep switching between the two sources, making links between them all the time. Use your connectives to link your ideas together and make comparisons between the following:

The writers' attitudes
The writers' perspectives
The writers' tones
How the writers use language features to get across their attitudes and perspectives

For Q4 try to make notes on how the attitudes and perspectives of the two writers are similar or different, depending on what the question is asking you to look at. Some students find Venn diagrams helpful for this (overlapping circles with similarities in the middle), or tables. However you want to do it think about making notes on the similarities or differences of the text, but focussed around:

Perspectives
Attitudes
Language
Tones

Fowey River Academy Geography

Knowledge Organiser – Semester 1 – Can we ever know enough about earthquakes and volcanoes to live safely? Part 1

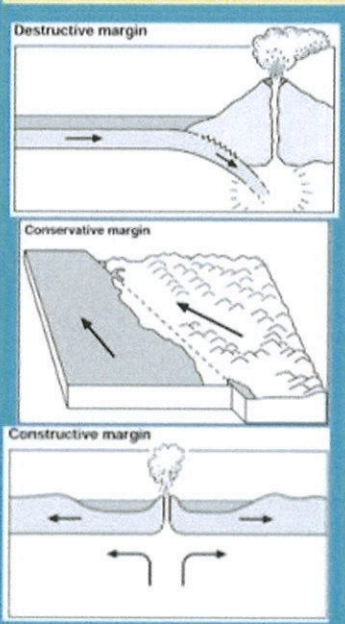
Key Vocabulary

Natural hazard	When a natural event threatens to cause great damage or loss of life.
Natural disaster	This is a natural hazard when many lives are lost.
Tectonic Plate	These are pieces of the rocky outer layer of the Earth known as the crust.
Destructive or convergent plate boundaries	This is when 2 tectonic plates move towards each other (both continental or one continental and one oceanic).
Constructive or divergent plate boundaries	This is when 2 tectonic plates move apart, away from each other. This is normally with oceanic plates.
Conservative or transform plate boundaries	This is when no land is made or destroyed. It is when 2 tectonic plates slide past each other causing friction and pressure to be built up.
Primary Effect	These occur in the minutes and hours after the natural disaster.
Secondary Effect	These occur in the days, weeks and months after the natural disaster.

Wegener's Theory

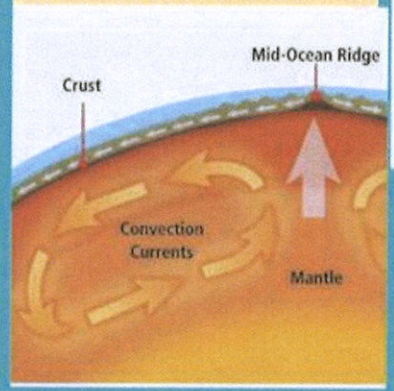
- Known as continental drift. Millions of years ago the continents that we know today were joined together as one super continent known as Pangea.
- Evidence for this includes:
  - Similar animal fossils and rock types were found on different continents.
  - Evidence of an ice age at the same time across parts of the continents, even the hottest ones.
  - A pattern in the formation of some of the old mountain ranges

Types of plate boundary

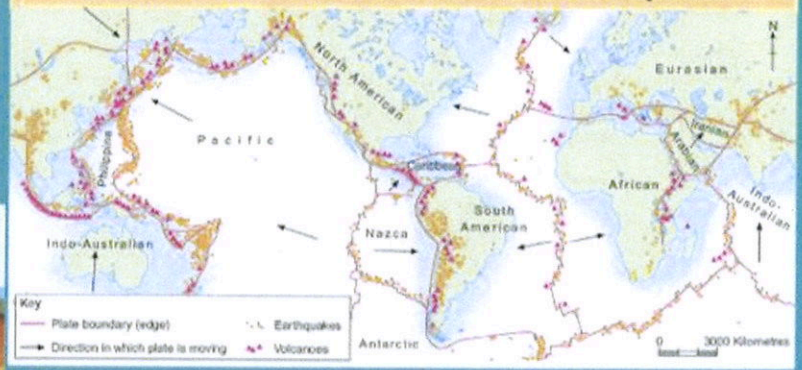


Convection Currents

This is a current of warmer material; when soft rock is heated from below, the warmer material rises in a convection current.

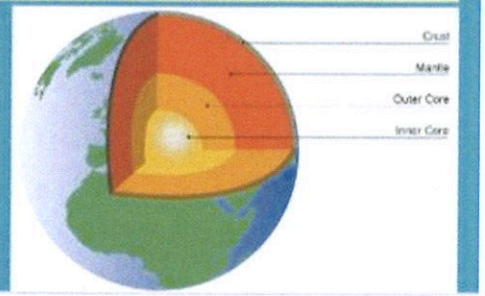


Global distribution of volcanoes and earthquakes



The layers of the Earth

The Earth is made up of 4 main layers; inner core; outer core; mantle and then crust. There are 2 types of crust, continental and oceanic.



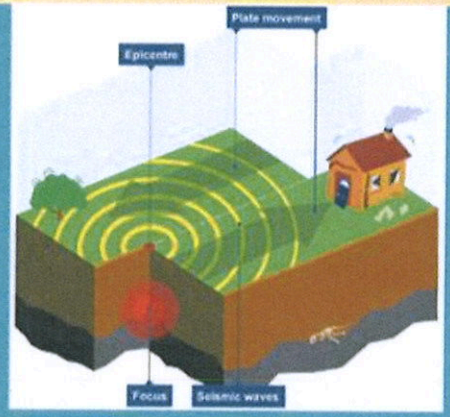
Fowey River Academy Geography

Knowledge Organiser – Semester 1 – Can we ever know enough about earthquakes and volcanoes to live safely? Part 2

Earthquakes

Earthquake	A sudden violent movement of the Earth's surface.
Focus	The location that the earthquake starts.
Epicentre	The point directly above the focus.
Seismic waves	The waves of energy caused by the earthquake.
Fault line	The line that 2 tectonic plates move by each other.

How an earthquake occurs



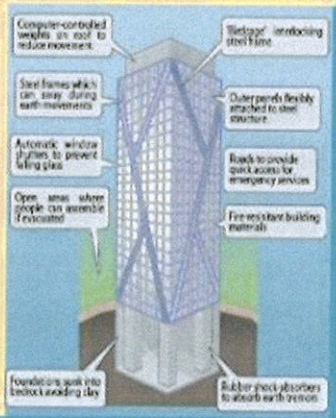
Nepal Earthquake

- Saturday 25th April 2015, 11:56am.
- Biggest earthquake in Nepal for over 80 years.
- Epicentre was 75km north-west of Kathmandu (the capital)
- Nearly 9000 people died
- More than 22,000 suffered injuries
- Triggered an avalanche on Mount Everest, killing at least 8 people.
- More than 600,000 homes were destroyed.

Earthquake Management

Preparation:
- Earthquake survival kit
- Guidance and support
- Earthquake drills

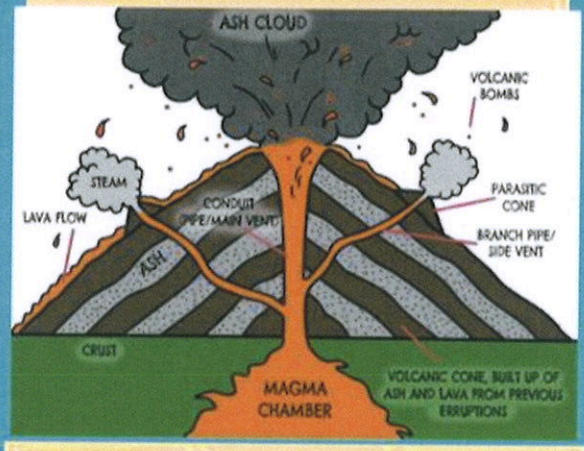
Earthquake resistant buildings:
- Cross bracing
- Shear wall
- Base isolator
- Shock absorbers



Volcanoes

Volcano	Openings or cracks in the lithosphere where magma from inside the Earth can escape onto the surface.
Shield Volcano	Gentle slopes formed from runny lava.
Composite Volcano	Steep slopes formed from thick sticky lava that doesn't flow far.
Active volcano	Is erupting or has recently erupted and is likely to erupt again.
Dormant volcano	Is one that has not erupted for 10,000 years but could become active again.
Extinct volcano	Hasn't erupted for that last 1,000,000 years and will probably never erupt again.

Volcano Cross Section



Managing the risk near volcanoes

Prediction, planning and preparation:
- Prediction – monitoring volcanoes to see when it is likely it could erupt.
- Planning – includes drawing up evacuation plans and using hazard maps to prevent houses being built in high risk areas.
- Preparation – educating people on what to do if a nearby volcano erupts.

Why do people live near a volcano?

- Fertile soil that is good for agriculture
- The presence of minerals
- Geothermal energy to produce electricity
- Tourism: volcanoes attract millions of visitors every year.

Year 9 Foundation
TYPES OF ANGLE AND ANGLES IN POLYGONS

Key Concepts

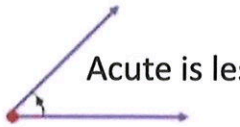
Regular polygons have equal lengths of sides and equal angles.

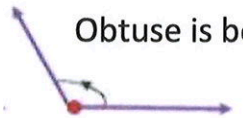
Angles in polygons
Sum of interior angles
$= (number\ of\ sides - 2) \times 180$

Exterior angles of **regular** polygons = $\frac{360}{number\ of\ sides}$

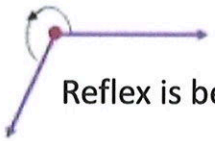
Types of angle
There are four types which need to be identified – acute, obtuse, reflex and right angled.

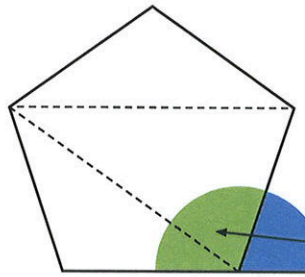
Examples


Acute is less than 90°


Obtuse is between 90° and 180°


Right angled is 90°


Reflex is between 180° and 360°



Exterior angles

$= \frac{360}{5} = 72^o$

Interior

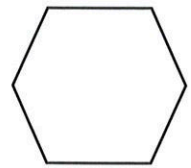
Sum of interior angles
$= (5 - 2) \times 180$
$= 540^o$
angle $= \frac{540}{5} = 108^o$

Key Words

Polygon
Interior angle
Exterior angle
Acute
Obtuse
Right angle
Reflex

Questions

1) Calculate the sum of the interior angles for this regular shape.
2) Calculate the exterior angle for this regular shape.
3) Calculate the size of one interior angle in this regular shape.



ANSWERS: 1) 720° 2) 60° 3) 120°

Year 9 Foundation
ANGLE FACTS INCLUDING ON PARALLEL LINES

Key Concepts

Angles in a **triangle equal 180°**.

Angles in a **quadrilateral equal 360°**.

Vertically opposite angles are equal in size.

Angles on a **straight line equal 180°**.

Base angles in an isosceles triangle are equal.

Alternate angles are equal in size.

Corresponding angles are equal in size.

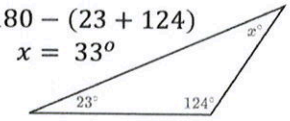
Allied/co-interior angles are equal 180°.

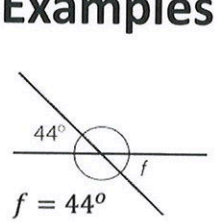
Key Words

Angle.	Co-interior
Vertically	Opposite
Straight line.	Allied
Alternate.	Corresponding

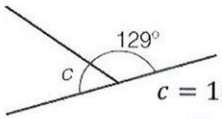
Examples

$x = 180 - (23 + 124)$
$x = 33^o$

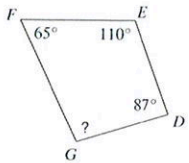




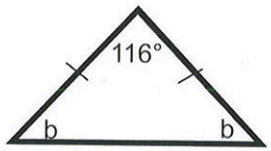
$f = 44^o$



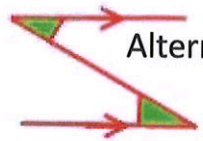
$c = 180 - 129$
$x = 51^o$



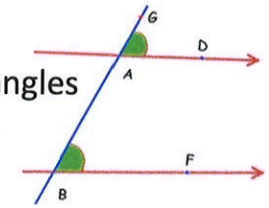
$? = 360 - (65 + 110 + 87)$
$? = 98^o$



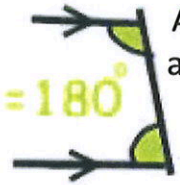
$b = (180 - 116) \div 2$
$b = 32^o$



Alternate angles are equal



Corresponding angles are equal

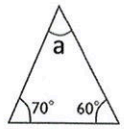


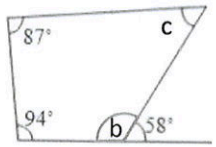
Allied/co-interior angles equal 180°

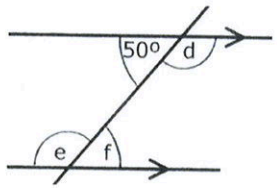
Questions

Calculate the missing angle:

a)







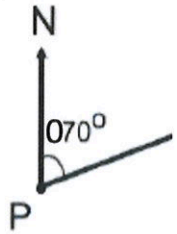
ANSWERS: 1) a=50° 2) b=122° c=57° 3) d=130° e=130° f=50°

Year 9 SCALES AND BEARINGS

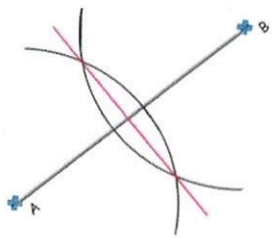
Key Concepts

Scales are used to reduce real world dimensions to a useable size.

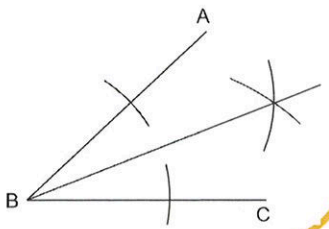
A **bearing** is an angle, measured **clockwise** from the **north** direction. It is given as a **3 digit** number.



Line bisector



Angle bisector

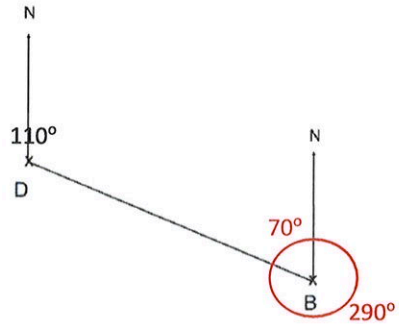


Key Words
Scale
Bearing
Clockwise
North
Protractor
Compasses
Bisect
Radius
Region
Shade

Links
Geography

Examples

The diagram shows the position of a boat B and dock D.



The scale of the diagram is 1cm to 5km.

a) Calculate the real distance between the boat and the dock.

$6cm = 6 \times 5$
$= 30km$

b) State the bearing of the boat from the dock.

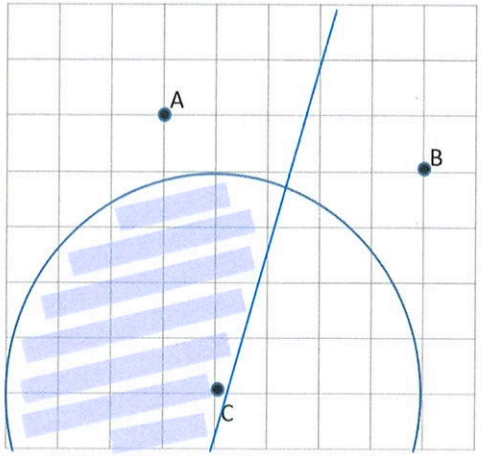
110^o

c) Calculate the bearing of the dock from the dock.

$180^o - 110^o = 70^o$ because the angles are cointerior

$360^o - 70^o = 290^o$ because angles around a point equal 360^o

Examples



Shade the region that is:

- closer to A than B
- less than 4 cm from C

Line bisector of A and B

Circle with radius 4cm

Year 9 EXPRESSIONS/EQUATIONS/IDENTITIES AND SUBSTITUTION

Key Concepts

A **formula** involves two or more letters, where one letter equals an **expression** of other letters.

An **expression** is a sentence in algebra that does NOT have an equals sign.

An **identity** is where one side is the equivalent to the other side.

When **substituting** a number into an expression, replace the letter with the given value.

Solving equations:
Working with inverse operations to find the value of a variable.

Rearranging an equation:
Working with inverse operations to isolate a highlighted variable.

In solving and rearranging we **undo the operations** starting from the last one.

Examples

1) $5(y + 6) \equiv 5y + 30$ is an identity as when the brackets are expanded we get the answer on the right hand side
2) $5m - 7$ is an expression since there is no equals sign
3) $3x - 6 = 12$ is an equation as it can be solved to give a solution
4) $C = \frac{5(F-32)}{9}$ is a formula (involves more than one letter and includes an equal sign)

Key Words

Substitute
Equation
Formula
Identity
Expression
Solve
Rearrange
Term
Inverse

Examples

Solve:

$7p - 5 = 3p + 3$

-3p -3p

$4p - 5 = 3$

+5 +5

$4p = 8$

÷ 2 ÷ 2

$p = 2$

Solve:

$5(x - 3) = 4(x + 2)$

expand expand

$5x - 15 = 4x + 8$

-4x -4x

$x - 15 = 8$

+15 +15

$x = 23$

Rearrange to make r the subject of the formulae :

$Q = \frac{2r-7}{3}$

×3

× 3

$3Q = 2r - 7$

+7 +7

$3Q + 7 = 2r$

÷ 2 ÷ 2

$\frac{3Q+7}{2} = r$

Rearrange to make c the subject of the formulae :

$2(3a - c) = 5c + 1$

expand

$6a - 2c = 5c + 1$

+2c +2c

$6a = 7c + 1$

-1 -1

$6a - 1 = 7c$

÷ 7 ÷ 7

$\frac{6a-1}{7} = c$

Year 9F REARRANGE AND SOLVE EQUATIONS

Key Concepts

Equations can be rearranged to be solved.

Solving equations:
Working with inverse operations to find the value of a variable.

Rearranging an equation:
Working with inverse operations to isolate a highlighted variable.

In solving and rearranging we **undo the operations** starting from the last one.

Remember, whatever we do to one side, we must do to the other.

For each step in solving an equation we must do the **inverse** operation

Solve:

$12 = 3x - 18$

+18 +18

$30 = 3x$

÷3 ÷3

$x = 10$

Solve:

$5(x - 3) = 20$

Expand

$5x - 15 = 20$

+15 +15

$5x = 35$

÷5 ÷5

$x = 7$

Solve:

$7p - 5 = 3p + 3$

-3p -3p

$4p - 5 = 3$

+5 +5

$4p = 8$

÷ 2 ÷ 2

$p = 2$

Examples

Rearrange to make r the subject of the formulae :

$$Q = \frac{2r - 7}{3}$$

×3 × 3

$$3Q = 2r - 7$$

+7 +7

$$3Q + 7 = 2r$$

÷ 2 ÷ 2

$$\frac{3Q + 7}{2} = r$$

Key Words
Solve
Rearrange
Term
Inverse operation

1) Solve $7(x + 2) = 35$

2) Solve $4x - 12 = 28$

3) Solve $4x - 12 = 2x + 20$

4) Rearrange to make x the subject:

$$y = \frac{3x + 4}{2}$$

ANSWERS: 1) $x = 3$ 2) $x = 10$ 3) $x = 16$ 4) $x = \frac{2y - 4}{3}$

Year 9 Foundation EQUATIONS IN CONTEXT

Key Concepts

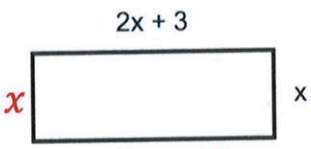
Algebra can be used to support us to find unknowns in a **contextual problem**.

We can always apply a letter to an unknown quantity, to then **set up an equation**.

It will often be used in area and perimeter problems and angle problems in geometry.

Solve to find the value of x when the perimeter is 42cm.

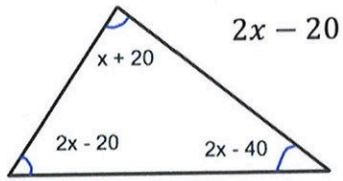
HINT: Write on all of the lengths of the sides.



We know the perimeter is 42cm

$$2x + 3 + 2x + 3 + x + x = 42$$
$$9x + 6 = 42$$
$$6x = 36$$
$$x = 6$$

Angles in a triangle sum to 180°



$$2x - 20 + x + 20 + 2x - 40 = 180$$
$$5x - 40 = 180$$
$$5x = 220$$
$$x = 45$$

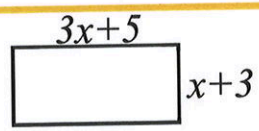
Examples

Jane is 4 years older than Tom.
David is twice as old as Jane.
The sum of their ages is 60.
Using algebra, find the age of each person.

Tom = x ⟶ 12
Jane = $x + 4$ ⟶ $12 + 4 = 16$
David = $2x + 8$ ⟶ $(2\times12) + 8 = 32$

$$x + x + 4 + 2x + 8 = 60$$
$$4x + 12 = 60$$
$$4x = 48$$
$$x = 12$$

Key Words
Solve
Term
Inverse operation



1) If the perimeter is 40cm. What is the length of the longest side?

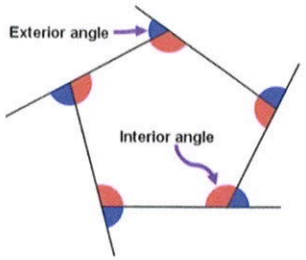
2) Jane is 12 years older than Jack.
Sarah is 3 years younger than Jack.
The sum of their ages is 36.
Using algebra, find the age of each person.

ANSWERS: 1) $x = 3$ therefore the longest length is 14cm 2) Jack = 9, $Jane = 21$, $Sarah = 6$

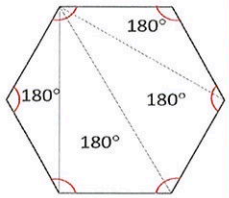
Year 9 Higher. CIRCLE THEOREMS

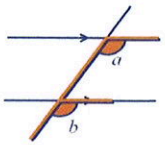
Key Concepts

$$Exterior = \frac{360}{no.\,of\ sides}$$

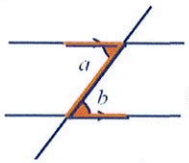


$Sum\ of\ interi$
$= 180° \times 4$
$= 720°$

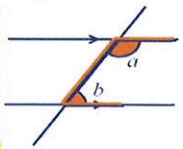




Corresponding angles are equal.

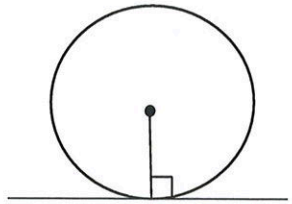


Alternate angles are equal.



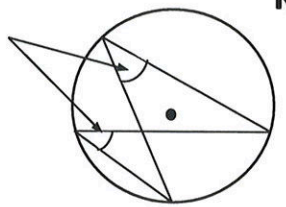
Co-interior angles add to 180°.

Key Concepts

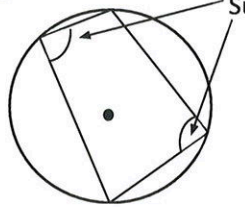


The angle between a radius and a tangent is 90°

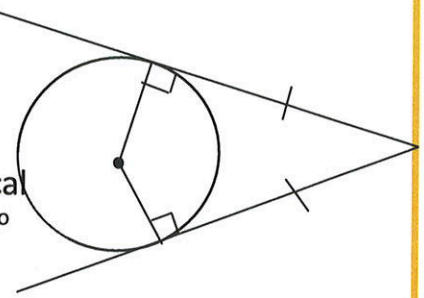
Same size



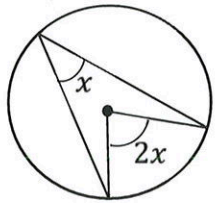
Angles at the circumference are equal



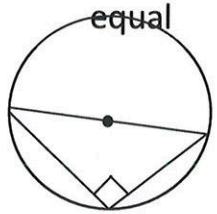
Opposite angles in a cyclical quadrilateral sum to 180°



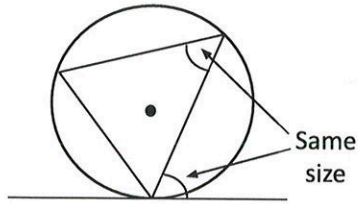
From any point you can only draw two tangents, and they are equal in length



The angle at the centre is twice that at the circumference



The angle in a semi circle is 90°



The alternate segment theorem

Key Words

Polygon	Centre
Perpendicular	Tangent
Parallel	Circumference
Radius	Right angle
Cyclic	Segment

Try look, cover, write, check to be able to identify and describe each of the 7 circle theorems.

1. Read through the theorems
2. Cover them over
3. Attempt to recreate them on another sheet of paper
4. Check how many you remembered perfectly. Try again until you have all 7.

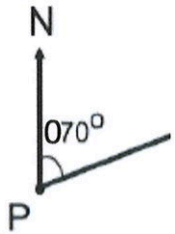
ANSWER

Year 9 Higher SCALES AND BEARINGS

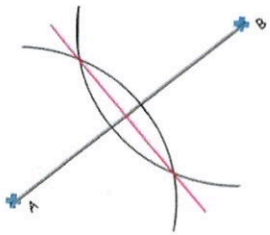
Key Concepts

Scales are used to reduce real world dimensions to a useable size.

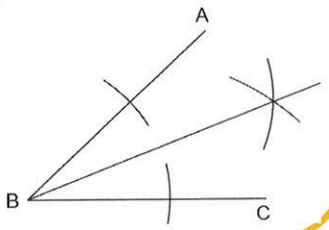
A **bearing** is an angle, measured **clockwise** from the **north** direction. It is given as a **3 digit** number.



Line bisector



Angle bisector

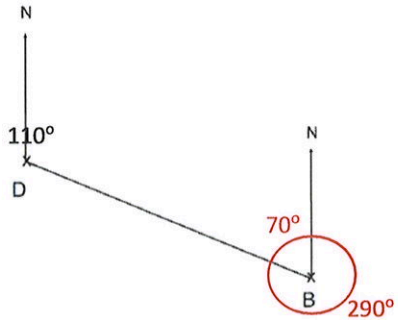


Key Words
Scale
Bearing
Clockwise
North
Protractor
Compasses
Bisect
Radius
Region
Shade

Links
Geography

Examples

The diagram shows the position of a boat B and dock D.



The scale of the diagram is 1cm to 5km.

a) Calculate the real distance between the boat and the dock.

$6cm = 6 \times 5$
$= 30km$

b) State the bearing of the boat from the dock.

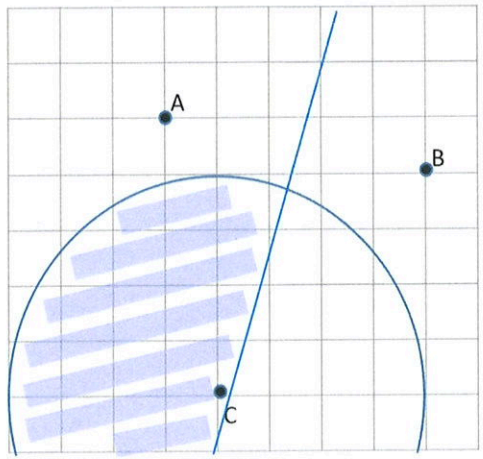
110^o

c) Calculate the bearing of the dock from the dock.

$180^o - 110^o = 70^o$ because the angles are cointerior

$360^o - 70^o = 290^o$ because angles around a point equal 360^o

Examples



Shade the region that is:

- closer to A than B
- less than 4 cm from C

Line bisector of A and B

Circle with radius 4cm

Year 9 EXPRESSIONS/EQUATIONS/IDENTITIES AND SUBSTITUTION

Key Concepts

A **formula** involves two or more letters, where one letter equals an **expression** of other letters.

An **expression** is a sentence in algebra that does NOT have an equals sign.

An **identity** is where one side is the equivalent to the other side.

When **substituting** a number into an expression, replace the letter with the given value.

Solving equations:
Working with inverse operations to find the value of a variable.

Rearranging an equation:
Working with inverse operations to isolate a highlighted variable.

In solving and rearranging we **undo the operations** starting from the last one.

Examples

1) $5(y + 6) \equiv 5y + 30$ is an identity as when the brackets are expanded we get the answer on the right hand side
2) $5m - 7$ is an expression since there is no equals sign
3) $3x - 6 = 12$ is an equation as it can be solved to give a solution
4) $C = \frac{5(F-32)}{9}$ is a formula (involves more than one letter and includes an equal sign)

Key Words

Substitute
Equation
Formula
Identity
Expression
Solve
Rearrange
Term
Inverse

Examples

Solve:

$7p - 5 = 3p + 3$

-3p -3p

$4p - 5 = 3$

+5 +5

$4p = 8$

÷ 2 ÷ 2

$p = 2$

Solve:

$5(x - 3) = 4(x + 2)$

expand expand

$5x - 15 = 4x + 8$

-4x -4x

$x - 15 = 8$

+15 +15

$x = 23$

Rearrange to make r the subject of the formulae :

$Q = \frac{2r-7}{3}$

×3

× 3

$3Q = 2r - 7$

+7 +7

$3Q + 7 = 2r$

÷ 2 ÷ 2

$\frac{3Q+7}{2} = r$

Rearrange to make c the subject of the formulae :

$2(3a - c) = 5c + 1$

expand

$6a - 2c = 5c + 1$

+2c +2c

$6a = 7c + 1$

-1 -1

$6a - 1 = 7c$

÷ 7 ÷ 7

$\frac{6a-1}{7} = c$

Year 9 Higher SOLVING QUADRATICS

Key Concepts

We can solve quadratic equations in 4 different ways:

$$ax^2 + bx + c = 0$$

Factorising – put into brackets first

Completing the square

$$\left(x + \frac{b}{2}\right)^2 + c - \left(\frac{b}{2}\right)^2 = 0$$

Quadratic formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Graphically

The x values are the point where they cross the x-axes.
The turning point can be found on the graph, or by completing the square

Examples

Factorising:

$x^2 + 7x + 10 = 0$

$(x + 2)(x + 5) = 0$

$Either: x + 2 = 0$

$x = -2$

$Or: \ x + 5 = 0$

$x = -5$

Completing the square – leave your answer in root form:

$x^2 + 6x + 5 = 0$

$\left(x + \frac{6}{2}\right)^2 + 5 - \left(\frac{6}{2}\right)^2 = 0$

$(x + 3)^2 + 5 - 3^2 = 0$

$(x + 3)^2 - 4 = 0$

$Either: \ x = \sqrt{4} - 3$

$Or: \ x = -\sqrt{4} - 3$

Quadratic formula – give your answer to 2 decimal places:

$x^2 + 4x - 2 = 0$

$x = \frac{-4 \pm \sqrt{4^2 - 4(1)(-2)}}{2(1)}$

$x = \frac{-4 \pm \sqrt{16 + 8}}{2}$

$Either: \ x = 0.45$

$Or: \ x = -4.45$

Key Words

Solve
Quadratic
Equation
Factorise
Completing the Square
Quadratic formula

1) Solve by factorising: $x^2 + 6x + 8 = 0$
2) Solve by completing the square: $x^2 + 8x + 10 = 0$
3) Solve by using the quadratic formula: $x^2 + 9x - 1 = 0$

ANSWERS: 1) $x = -2, x = -4$ 2) $x = \sqrt{6} - 4, x = -\sqrt{6} - 4$ 3) $x = 0.11, x = -9.11$

La famille

les parents
le père
la mère
le beau-père
la belle-mère
le mari
la femme
les enfants
le fils
la fille
le frère
la sœur
le demi-frère

Family members

parents
father
mother
stepfather/father-in-law
stepmother/mother-in-law
husband
wife
children
son
daughter
brother
sister
half-brother, stepbrother

la demi-sœur
le beau-frère
la belle-sœur
les grands-parents
le grand-père
la grand-mère
les petits-enfants
le petit-fils
la petite-fille
l'oncle (m)
la tante
le cousin/la cousine

half-sister, stepsister
brother-in-law
sister-in-law
grandparents
grandfather
grandmother
grandchildren
grandson
granddaughter
uncle
aunt
cousin

Les adjectifs de personnalité

Il/Elle est …
- agaçant(e)
- arrogant(e)
- amusant(e)
- bavard(e)
- charmant(e)
- content(e)
- fort(e)

Personality adjectives

He/She is …
- *annoying*
- *arrogant*
- *amusing, funny*
- *talkative, chatty*
- *charming*
- *happy*
- *strong*

impatient(e)
impoli(e)
indépendant(e)
intelligent(e)
marrant(e)
méchant(e)
têtu(e)

impatient
impolite
independent
intelligent
funny
nasty/mean
stubborn, pig-headed

Ma description physique

J'ai les cheveux …
- courts/longs
- raides/bouclés/frisés
- noirs/bruns/blonds
- roux/gris/blancs

J'ai les yeux …
- bleus/verts
- gris/marron

My physical description

I have … hair
- *short/long*
- *straight/curly*
- *black/brown/blond*
- *red/grey/white*

I have … eyes
- *blue/green*
- *grey/brown*

J'ai …
- des lunettes
- des boutons
- une moustache/une barbe

Je suis …
- petit(e)/grand(e)
- de taille moyenne
- mince/gros(se)

I have …
- *glasses*
- *spots*
- *a moustache/a beard*

I am …
- *short/tall*
- *of average height*
- *thin/fat*

En ville

la boîte de nuit
le bowling
le café
le centre commercial
le cinéma
les magasins
la patinoire

In town

night club
bowling alley
cafe
shopping centre
cinema
shops
ice rink

la piscine
la plage
le théâtre
dans
derrière
devant
entre

swimming pool
beach
theatre
in
behind
in front of
between

Quand?

aujourd'hui
demain
ce/demain matin
cet/demain après-midi

When?

today
tomorrow
this/tomorrow morning
this/tomorrow afternoon

ce/demain soir
lundi matin
samedi soir

this/tomorrow evening
on Monday morning
on Saturday night

Les amis

l'ami (m)/le copain
l'amie (f)/la copine
le petit ami/le petit copain
la petite amie/la petite copine
Je retrouve mes amis au parc.

Je traîne en ville avec mes copines.

Je tchatte en ligne avec ma meilleure copine.

Friends

(male) friend
(female) friend
boyfriend
girlfriend
I meet up with my friends in the park.
I hang out in town with my (female) friends.
I chat online with my best (female) friend.

Avec mon petit ami, j'écoute de la musique.
Je passe chez ma petite copine.
On rigole bien ensemble.
On regarde un film ou des clips vidéo.
On joue au foot ou au basket ensemble.
On discute de tout.
On mange ensemble au fast-food.

I listen to music with my boyfriend.

I go to my girlfriend's house.
We have a good laugh together.
We watch a film or music videos.

We play football or basketball together.
We talk about everything.
We eat together at a fast-food restaurant.

L'amitié / *Friendship*

Je pense que … / *I think that …*
Pour moi, … / *For me …*
À mon avis, … / *In my opinion …*
Un(e) bon(ne) ami(e) est … / *A good friend is …*
- compréhensif/-ive / *understanding*
- cool / *cool*
- drôle / *funny*
- fidèle / *loyal*
- généreux/-euse / *generous*
- gentil(le) / *kind*
- honnête / *honest*
- modeste / *modest*
- optimiste / *optimistic*
- patient(e) / *patient*
- sensible / *sensitive*
- sympa / *nice*

Un(e) bon(ne) ami(e) … / *A good friend …*
- écoute mes problèmes/mes secrets / *listens to my problems/secrets*
- discute de tout avec moi / *talks about everything with me*
- aide tout le monde / *helps everyone*
- accepte mes imperfections / *accepts my faults*
- respecte mes opinions / *respects my opinions*
- a les mêmes centres d'intérêt que moi / *has the same interests as me*
- a le sens de l'humour / *has a sense of humour*

Les rapports en famille / *Family relationships*

Je m'entends bien avec … / *I get on well with …*
Je me dispute avec … / *I argue with …*
Je me chamaille avec … / *I bicker with …*
Je m'amuse avec … / *I have fun with …*
Je m'occupe de … / *I look after …*
le frère aîné/cadet / *older/younger brother*
la sœur aînée/cadette / *older/younger sister*

Il/Elle est/a l'air/semble … / *He/She is/looks/seems …*
- dynamique / *lively*
- égoïste / *selfish*
- jaloux/-ouse / *jealous*
- sévère / *strict*
- timide / *shy*
- travailleur/-euse / *hard-working*

On va sortir / *Going out*

Je vais … / *I am going …*
- aller à un match/au bowling / *to go to a match/the bowling alley*
- aller au cinéma/à la piscine / *to go to the cinema/the swimming pool*
- voir un spectacle / *to see a show*
- faire du patin à glace/du skate / *to go ice skating/skateboarding*
- faire les magasins / *to go shopping*
- jouer à des jeux vidéo / *to play video games*

Tu veux venir? / *Do you want to come?*

Les questions / *Questions*

Quand? / *When?*
Avec qui? / *With who(m)?*
On y va comment? / *How are we getting there?*
On se retrouve où? / *Where shall we meet?*
On se retrouve à quelle heure? / *At what time shall we meet?*

Une sortie / *An outing*

J'ai contacté un copain/une copine. / *I contacted a friend.*
J'ai quitté la maison. / *I left the house.*
J'ai raté le bus. / *I missed the bus.*
Je suis allé(e) en ville. / *I went into town.*
J'ai écouté de la musique. / *I listened to music.*
J'ai retrouvé mon copain/ma copine. / *I met up with my friend.*
J'ai discuté avec mon copain/ma copine. / *I talked to my friend.*
J'ai mangé un sandwich. / *I ate a sandwich.*
J'ai acheté des vêtements. / *I bought some clothes.*
C'était super. / *It was great.*
J'ai passé une très bonne journée. / *I had a very good day.*

La personne que j'admire / *The person I admire*

Comment s'appelle la personne que tu admires? / *What is the name of the person you admire?*
Mon héros s'appelle … / *My hero is called …*
Mon héroïne s'appelle … / *My heroine is called …*
Mon modèle s'appelle … / *My role model is called …*
C'est qui? / *Who is he/she?*
C'est un pilote de Formule 1. / *He is a Formula 1 driver.*
C'est un scientifique. / *He is a scientist.*
C'est une actrice. / *She is an actress.*
C'est une créatrice de mode. / *She is a fashion designer.*
Fais-moi sa description physique. / *Describe for me what he/she looks like.*
Il/Elle est petit(e)/gros(se), etc. / *He/She is … small/fat, etc.*
Il/Elle a les cheveux bruns, etc. / *He/She has brown hair, etc.*
Quelle est sa personnalité? / *What is his/her personality?*

Il/Elle est … travailleur/-euse/créatif/-ive, etc. / *He/She is … hard-working/creative, etc.*
Pourquoi est-ce que tu admires cette personne? / *Why do you admire this person?*
J'admire (Stromae/Malala, etc.) car il/elle … / *I admire (Stromae/Malala, etc.) because he/she …*
- a travaillé très dur / *worked/has worked very hard*
- a joué dans beaucoup de films / *acted/has acted in lots of films*
- a gagné beaucoup de courses / *won/has won lots of races*
- a donné de l'argent aux bonnes œuvres / *gave/has given money to good causes*
- a lutté contre ses problèmes / *fought/has fought his/her problems*

J'aimerais être comme lui/elle. / *I would like to be like him/her.*

Les mots essentiels / *High-frequency words*

très	*very*	d'abord	*first of all*
assez	*quite*	puis	*then*
mais	*but*	ensuite	*next*
ou	*or*	après	*afterwards*
où	*where*	plus tard	*later*
hier	*yesterday*	le soir	*in the evening*

Year 9 German - Autumn Semester – Auf in die Schule!

Schulfächer	School subjects
Sprachen:	*languages:*
Deutsch	*German*
Englisch	*English*
Französisch	*French*
Spanisch	*Spanish*
Naturwissenschaft(en):	*science(s):*
Biologie	*biology*
Chemie	*chemistry*
Physik	*physics*
Mathe(matik)	*math(ematic)s*
Informatik	*ICT*
Geschichte	*history*
Erdkunde	*geography*
Politik	*politics*
Gesellschaft	*sociology*
Wirtschaft	*economics*
Kunst	*art*
Musik	*music*
Theater	*drama*
Religion	*RE*
Sport	*PE, sport*
das Wahlfach	*optional subject*
das Pflichtfach	*compulsory subject*

Farben und Kleidung	Colours and clothes
blau	*blue*
braun	*brown*
gelb	*yellow*
grau	*grey*
grün	*green*
rot	*red*
schwarz	*black*
weiß	*white*
Ich trage (nie) …	*I (never) wear …*
einen Rock	*a skirt*
eine Jeans	*jeans*
eine Hose	*trousers*
eine Jacke	*a jacket*
eine Krawatte	*a tie*
ein Hemd	*a shirt*
ein Kleid	*a dress*
ein T-Shirt	*a t-shirt*
Sportschuhe	*trainers*
Schuhe	*shoes*

Schulsachen	School items
Was hast du (für das neue Schuljahr / die neunte Klasse) gekauft?	*What have you bought (for the new school year / Year 9)?*
Ich habe … gekauft.	*I bought …*
einen Bleistift	*a pencil*
einen Füller	*a fountain pen*
einen Kuli	*a ballpoint pen*
einen Radiergummi	*a rubber*
einen Taschenrechner	*a calculator*
ein Etui	*a pencil case*
ein Lineal	*a ruler*
Filzstifte	*felt-tip pens*

Das neue Schuljahr	The new school year
In der neunten Klasse freue ich mich (nicht) auf …	*In Year 9, I'm (not) looking forward to …*
den Druck	*the pressure*
die Klassenfahrt	*the class trip*
das Zeugnis	*the report*
die Hausaufgaben	*the homework*
die (Sport-)AG(s)	*the sport clubs*
die Klassenarbeiten	*the tests*
die Prüfungen	*the exams*
neue Fächer	*new subjects*
meine Freunde/Freundinnen	*my friends*
die Noten	*the grades*
am meisten	*mostly*
besonders	*especially*
total	*totally*
(echt) sehr	*(really) very*
weniger	*less*
(gar) nicht	*not (at all)*
nie	*never*
langweilig	*boring*
stressig	*stressful*
schwierig	*difficult*
interessant	*interesting*
einfach	*simple*

Ein Schultag	A school day
Was hat (die Klasse 9) in der (ersten) Stunde am (Montag)?	*What does (Year 9) have in the (first) lesson on (Monday)?*
zweite(n)	*second*
dritte(n)	*third*
vierte(n)	*fourth*
fünfte(n)	*fifth*
sechste(n)	*sixth*
siebte(n)	*seventh*
Die Schule beginnt / endet um …	*School starts / ends at …*
die (kleine) Pause	*(short) break*
die Mittagspause	*lunch break*
Wir haben … Stunden pro Tag.	*We have … lessons per day.*
Jede Stunde dauert … Minuten.	*Each lesson lasts … minutes.*
Ich habe vier Stunden pro Woche (Erdkunde).	*I have four lessons of (geography) per week.*
Ich habe viermal pro Woche (Mathe).	*I have (maths) four times a week.*
Mein Lieblingsfach ist (Physik).	*My favourite subject is (physics).*

Fragen stellen	Asking questions
Wann?	*When?*
Wie viele?	*How many?*
Um wie viel Uhr?	*At what time?*
Wie oft?	*How often?*
Was?	*What?*
Ist (Mathe) dein Lieblingsfach?	*Is (maths) your favourite subject?*
Warum?	*Why?*
Welches Fach?	*Which subject?*
Wie?	*How?*
Wer?	*Who?*

Die Schulordnung	School rules
der Computerraum	*ICT room*
der Schulhof	*playground*
die Aula	*assembly hall*
die Bibliothek	*library*
die Kantine	*canteen*
die Sporthalle	*sports hall*
das Klassenzimmer	*classroom*
das Labor	*lab(oratory)*
das Lehrerzimmer	*staff room*
die Toiletten	*toilets*
Wir dürfen nicht …	*We are not allowed to …*
Wir dürfen weder … noch …	*We are allowed neither … nor …*
schlagen	*to hit*
mobben	*to bully*
(auf dem Schulgelände) rauchen	*to smoke (in the school grounds)*
essen	*to eat*
trinken	*to drink*
Sportschuhe tragen	*to wear trainers*
Handball spielen	*to play handball*
Wir dürfen keine Schimpfwörter sagen.	*We are not allowed to use swear words.*
Wir dürfen keinen Kaugummi kauen.	*We are not allowed to chew gum.*
Wir müssen …	*We have to …*
den Müll trennen	*separate the rubbish*
immer Hochdeutsch sprechen	*always speak standard German*
ruhig sein	*be quiet*
höflich sein	*be polite*
pünktlich sein	*be punctual*
respektvoll sein	*be respectful*
zu	*too*
sehr	*very*
ziemlich	*rather, quite*
streng	*strict*
ärgerlich	*annoying*
nervig	*irritating*
(un)gerecht	*(un)just*
(un)fair	*(un)fair*
locker	*casual, informal*

Das deutsche Schulsystem	The German school system
Ich besuche …	*I go to …*
die Grundschule	*primary school*
die Gesamtschule	*comprehensive school*
die Hauptschule	*a type of secondary modern school*
die Realschule	*a type of secondary modern school*
das Gymnasium	*grammar school*
die Oberstufe	*sixth form*
die Ganztagsschule	*all-day school*
das Internat	*boarding school*
der Mittlere Schulabschluss	*German equivalent of GCSEs*
das Abitur	*German equivalent of A levels*
gemischt	*mixed*
privat	*private*
staatlich	*state*
Man hat …	*We have …*
(k)einen Stundenplan	*no / a timetable*
(k)eine Schuluniform	*no / a school uniform*
(keine) Hausaufgaben	*(no) homework*
Man hat tolle / keine Computerräume.	*We have great / no ICT rooms.*
Die Schule ist prima / schlecht ausgestattet.	*The school is very well / badly equipped.*
Ich bin sitzen geblieben.	*I repeated the year.*
Ich muss das Jahr wiederholen.	*I have to repeat the year.*

Eine Klassenfahrt	A class trip
Was werden wir am (Mittwoch) machen?	*What will we do on (Wednesday)?*
Ich werde …	*I will …*
Deutsch sprechen	*speak German*
einen Schultag erleben	*experience a school day*
einen Tagesausflug machen	*go on a day trip*
eine Fahrradtour machen	*go on a cycling tour*
ein Kunstprojekt machen	*do an art project*
den Abend bei einer Gastfamilie verbringen	*spend the evening with a host family*
das (Zirkus-)Museum besuchen	*visit the (circus) museum*
den Freizeitpark besuchen	*visit the theme park*
die Sehenswürdigkeiten besichtigen	*visit the sights*
ins Hallenbad / Freibad gehen	*go to the indoor / outdoor swimming pool*
in der Altstadt bummeln	*stroll around the old town*
Andenken kaufen	*buy souvenirs*
(wieder) nach Hause fahren	*go home (again)*
Es wird … kosten.	*It will cost …*
Das wird Spaß machen.	*That will be fun.*
Heimweh haben	*to be homesick*
reisekrank sein	*to be travel sick*
Die Reise hat … gedauert.	*The journey lasted …*
Das war eine Katastrophe!	*That was a catastrophe!*
Es gab (kein) WLAN.	*There was (no) Wi-Fi.*

Year 9 vocab recap

Unit 1: Family + family relationships / description

Familia/ family

Español	English
madre	mother
padre	father
hermano	brother
hermana	sister
hermanos	siblings
hermanastro	Half-brother/ stepbrother
hermanastra	Half-sister/ stepsister
abuelo	grandfather
abuela	grandmother
bisabuelo	great-grandfather
bisabuela	great-grandmother
tío	uncle
tía	aunty
primo	cousin (male)
prima	cousin (female)
hijo único	only child
No tengo hermanos	I don't have any siblings

Verb to have/ verbo tener

Español	English
tener	to have
tengo	I have
tienes	you have
tiene	he/ she has
tenemos	we have
tenéis	you, plural, have
tienen	they have

Personality/ personalidad

Español	English
soy	I am
divertido	funny
estupendo	brilliant
fenomenal	fantastic
generoso	generous
genial	great
guay	cool
listo/a	clever, smart
serio/a	serious
simpático/a	nice, kind
tímido/a	shy
tonto/a	silly
tranquilo/a	quiet, calm

Verb to be/ verbo ser

Español	English
ser	To be
soy	I am
eres	you are
Es	he/ she is
Somos	we are
Sois	you, plural, are
son	they are

Physical description

Español	English
Tengo el pelo...	I have the hair...
marrón	brown
castaño	chestnut
negro	black
rubio	blonde
gris	grey
blanco	white
rojo	red
rosa	pink
Soy pelirrojo/a	I am ginger

Español	English
Tengo los ojos...	I have the eyes...
marrones	brown
azules	blue
negros	black
grises	grey
verdes	green

¿Cómo es un buen amigo / una buena amiga?	What is a good friend like?
Un buen amigo es alguien que...	*A good friend is someone who...*
te apoya	*supports you*
te escucha	*listens to you*
te conoce bien	*knows you well*
te acepta como eres	*accepts you as you are*
te quiere mucho	*likes / loves you a lot*
te da consejos	*gives you advice*
te hace reír	*makes you laugh*
no te critica	*doesn't criticise you*
nunca te juzga	*never judges you*

Conocí a mi mejor amigo/a...	*I met my best friend...*
Nos conocimos	*We met / got to know each other*
Nos hicimos amigos	*We became friends*
Nos hicimos novios	*We started going out*
convivimos	*we lived together*
nos casamos	*we got married*
Es el amor de mi vida.	*He/She is the love of my life.*
Tenemos ... en común.	*We have ... in common.*
nos gustan (las mismas cosas)	*we like (the same things)*
nos encantan (las películas)	*we love (films)*

¿Te llevas bien con tu familia?

Do you get on well with your family?

(No) Me llevo bien con…porque…	*I (don't) get on well with… because…*
me apoya	*he/she supports me*
me acepta como soy	*he/she accepts me as I am*
nunca me critica	*he/she never criticises me*
tenemos mucho en común	*we have a lot in common*

Me divierto con…	*I have a good time with…*
Me peleo con…	*I argue with…*
Nos llevamos superbién.	*We get on really well.*
Nos llevamos como el perro y el gato.	*We fight like cat and dog.*
Nos divertimos siempre.	*We always have a good time.*

¿Qué te gusta leer?

What do you like reading?

los blogs	*blogs*
los tebeos / los cómics	*comics*
los periódicos	*newspapers*
las revistas	*magazines*
las poesías	*poems*
las novelas de ciencia ficción	*science fiction novel*
las novelas de amor	*romantic novels*
las historias de vampiros	*vampire stories*
las biografías	*biographies*

¿Qué aplicaciones usas?

What apps do you use?

Uso … para…	*I use … (in order) to…*
ver mis series favoritas	*watch my favourite series*
organizar las salidas con mis amigos	*organise to go out with my friends*
controlar mi actividad física / las calorías	*monitor my physical activity / my calorie intake*
contactar con mi familia	*get in touch with my family*
chatear con mis amigos	*chat with my friends*
La tengo desde hace … meses.	*I've had it for … months*
Es una aplicación buena para…	*It's a good app for…*
buscar y descargar música	*looking for and downloading music*
pasar el tiempo / el rato	*passing the time*
sacar / editar / personalizar fotos	*taking / editing / personalising photos*
compartir / subir fotos	*sharing / uploading photos*
estar en contacto	*keeping in touch*
conocer a nueva gente	*meeting new people*
subir y ver vídeos	*uploading and watching videos*
chatear y mandar mensajes	*chatting and sending messages*
Es / No es…	*It is / It isn't…*
una red social	*a social network*
amplio/a	*extensive*
cómodo/a	*convenient*
divertido/a	*fun*
necesario/a	*necessary*
peligroso/a	*dangerous*
práctico/a	*practical*
rápido/a	*quick*
fácil de usar	*easy to use*
popular	*popular*
útil	*useful*
gratis	*free*
un canal de comunicación	*a channel / means of communication*
una pérdida de tiempo	*a waste of time*
Soy / Es adicto/a a…	*I am / He/She is addicted to…*
Estoy / Está enganchado/a a…	*I am / He/She is hooked on…*
Lo único malo es que…	*The only bad thing is that …*
te engancha	*it gets you hooked*

¿Con qué frecuencia lees?

How often do you read?

cada día / todos los días	*every day*	una vez a la semana	*once a week*
a menudo	*often*	dos veces al mes	*twice a month*
generalmente	*generally*	una vez al año	*once a year*
de vez en cuando	*from time to time*	nunca	*never*

¿Qué es mejor, leer en papel o en la red?

What is better, reading paper books or online?

Leer en formato digital…	*Reading in digital format…*
protege el planeta	*protects the planet*
no malgasta papel	*doesn't waste paper*
cansa la vista	*tires your eyes*
depende de la energía eléctrica	*relies on electricity*
te permite llevar contigo miles de libros	*allows you to take thousands of books with you*
cuesta mucho menos	*costs a lot less*
fastidia porque no hay numeración de páginas	*is annoying because there is no page numbering*
Los libros electrónicos / Los e-books…	*Electronic books / E-books…*
son fáciles de transportar	*are easy to transport*
son más ecológicos / baratos	*are more environmentally-friendly / cheaper*
no ocupan espacio	*don't take up space*
Una desventaja es…	*One disadvantage is…*
el uso de batería	*the battery use*
Me gusta / prefiero…	*I like / I prefer…*
tocar las páginas	*to touch the pages*
pasar las páginas a mano	*to turn the pages by hand*
escribir anotaciones	*to write notes*
leer horas y horas	*to read for hours and hours*
un ratón de biblioteca	*a bookworm*
un fan del manga	*a manga fan*
un libro tradicional	*a traditional book*
un libro de verdad	*a real book*

Y9 History Knowledge Organiser Autumn Semester: Protest

Protest: Who?	
Luddites	Members of a 19th-century movement of English textile workers which opposed the use of certain types of cost-saving machinery, often by destroying the machines
Swing Rioters	Agricultural workers in southern and eastern England who protested about agricultural mechanisation and harsh working conditions – their protests were often violent
Tolpuddle Martyrs	Six men from the village of Tolpuddle who founded the Friendly Society of Agricultural Labourers as a society to protest against the lowering of agricultural wages.
Chartists	A working-class movement for political reform. They wanted to gain political rights and influence for the working classes.
Rebecca Rioters	They were a series of protests undertaken by local farmers and agricultural workers in response to levels of taxation
WSPU	Women's Social and Political Union. Also known as the Suffragettes
NUWSS	National Union of Women's Suffrage Societies. Also known as the Suffragists
Millicent Fawcett	Leader of the Suffragists
Emmeline Pankhurst	Leader of the Suffragists
Emily Davison	A Suffragette who died at the Epsom Derby in 1913

Semester Key Words	
Protest	The act of objecting or a gesture of disapproval
Reform	To make changes in (something, especially an institution or practice) in order to improve it
Democracy	A type of government were the power rests with the people
Suffrage	The right to vote in political elections
Election	The process of choosing someone or something by voting

Protest Chronology	
1811-1812	Luddites
1819	Peterloo Massacre
1820	Cato Street Conspiracy
1830	The Swing Riots
1832	Great Reform Act – votes for Middle Class men, (4% of the population can now vote).
1834	Grand National Consolidated Trade Union, (GNCTU), set up with 800,000 members.
1835	The Tolpuddle Martyrs
1838-1848	Chartist movement
1839-1843	Rebecca Riots
1872	Secret Ballot Act
1867	2nd Reform Act - more men in towns given the vote, about 14% of adults could now vote
1884	3rd Reform Act - More men in the countryside given the vote, about 30% of adults could now vote
1897	The Suffragist movement was set up
1903	The Suffragette movement was set up
1918	Representation of the People Act – gave the vote to women over 30 who met minimum property qualifications
1928	Representation of the People (Equal Franchise) Act - almost all adults could now vote

Protest: Key Ideas

- In 1800, less than 5% of the population could vote in elections in Britain. No woman could vote.
- As the cities grew, the pressure for more people to be given the vote was made by the working and middle classes. More men gained the vote in the 19th century.
- It wasn't until 1918 that some women gained the vote. Most people had the vote by 1928.

MY PERSONAL BEST
myPB
Life-Skilled through PE

ENDURANCE
Keep going even when things get difficult; Controlling emotions and behaviours

PERFORMING AT MAXIMUM LEVELS
Pushing yourself to see what you are capable of

RESILIENCE
Working through challenges

EMPATHY
Understanding others perspectives
Being honest and fair

DECISION MAKING
Coming to the right conclusions based on information

COMMUNICATION
Actively listening and speaking effectively
Using gestures or hand signals
Use specialist equipment like a whistle or flag

CREATIVITY
Using skills or knowledge to solve problems
Coming up with new ways of doing things

SELF MANAGEMENT
Organised and independent

TEAMWORK AND INFLUENCING OTHERS
Working with others to accomplish a task
Encouraging others to achieve

SELF – ANALYSIS
Reflecting on performance and setting targets to improve