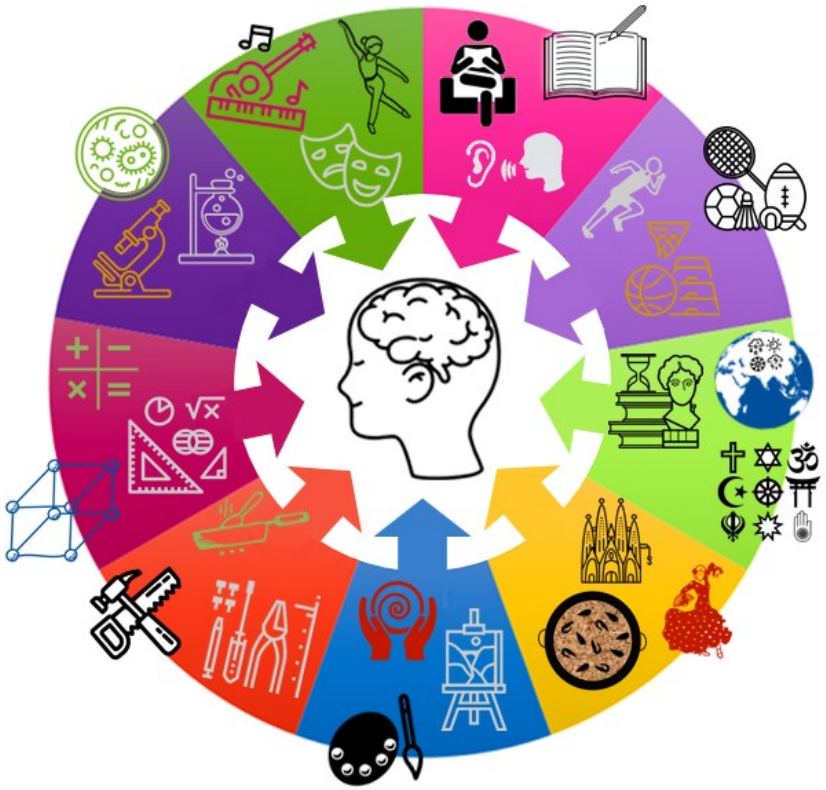
100% book - Year 11 Mainstream

Aim to memorise 100% of the knowledge on these Knowledge Organisers.



Term 3

Swindon Academy 2024-25	
Name:	
Tutor Group:	
Tutor & Room:	

"If you are not willing to learn, no one can help you.
If you are determined to learn, no one can stop you."

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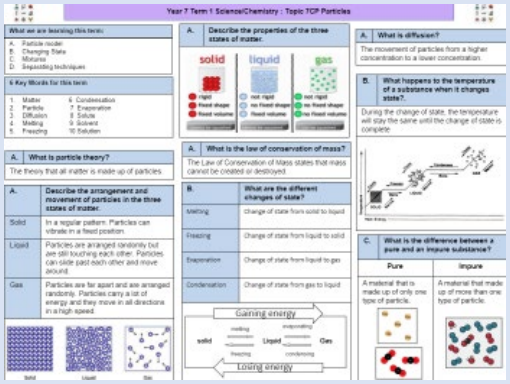
How to use your 100% book of Knowledge Organisers and Quizzable Organisers

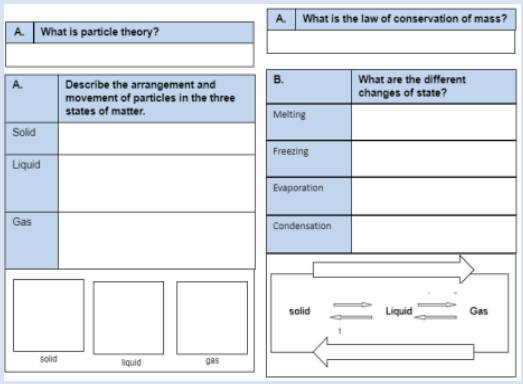
Knowledge Organisers



Knowledge Organisers contain the essential knowledge that you MUST know in order to be successful this year and in all subsequent years.

They will help you learn, revise and retain what you have learnt in lessons in order to move the knowledge from your short-term memory to long-term memory.

Quizzable Knowledge Organisers



These are designed to help you quiz yourself on the essential Knowledge.

Use them to test yourself or get someone else to test you, until you are confident you can recall the information from memory.

Top Tip

Don't write on your Quizzable Knowledge Organisers! Quiz yourself by writing the missing words in your prep book. That way you can quiz yourself again and again!

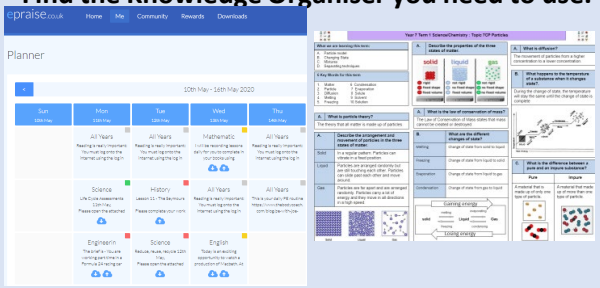
Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.
2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.
3. Take pride in your prep book – keep it neat and tidy.
4. Present work in your prep book to the same standard you are expected to do in class.
5. Ensure that your use of SPAG is accurate.
6. Write in blue or black pen and sketch in pencil.
7. Ensure every piece of work has a title and date.
8. Use a ruler for straight lines.
9. If you are unsure about the prep, speak to your teacher.
10. Review your prep work in green pen using the mark scheme.

How do I complete Knowledge Organiser Prep?

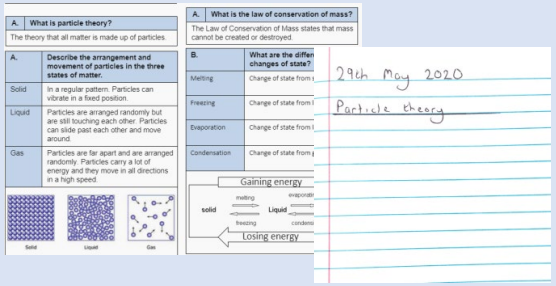
Step 1

Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.



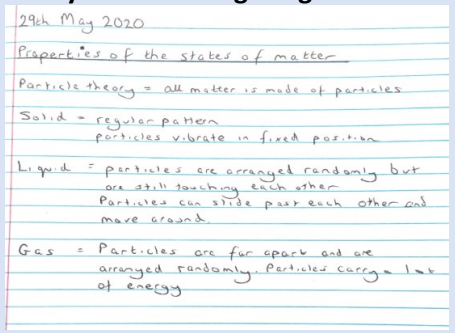
Step 2

Write today's date and the title from your Knowledge Organiser in your Prep Book.



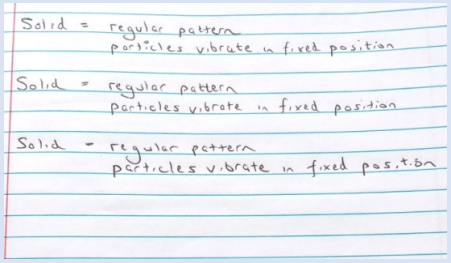
Step 3

Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.



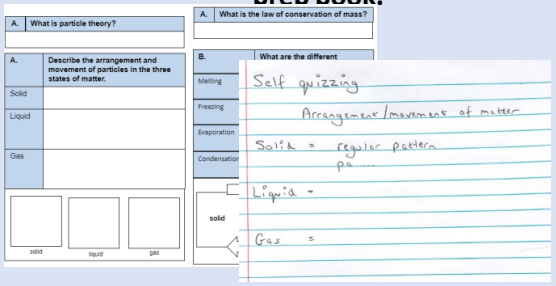
Step 4

Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.



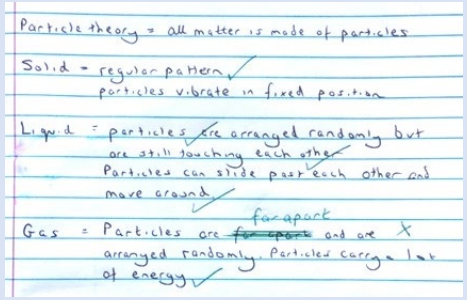
Step 5

Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.



Step 6

Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.



Make sure you bring in your completed Prep notes to demonstrate that you have completed your prep.

AN INSPECTOR CALLS Traditional

1. Context

Playwright: John Boynton Priestley (1894-1984)
Dates: Written in 1945
First performed: In Moscow, Russia, in 1945
Era: Edwardian
Genre: Drama
Set: Fictional town Brumley 'an industrial city in the north Midlands' in 1912
Structure: Three Act Play

Biography of Priestley

- Born in Yorkshire in 1894.
- Fought in the first world war and became politicised by the suffering of it
- Became concerned with the effects of social inequality in Britain in 1930s
- Set up a new political party in 1942, The Commonwealth Party. It merged with the labour Party and was integral in developing the welfare state

Pre and Post War – Before the first world war there was deemed to be a general air of complacency regarding the prospect of any war taking pace. There were strong distinctions between upper and lower classes, society was deeply patriarchal. After the second word war ended in 1945, class distinctions had been greatly reduced by the two wars and women had earned a more valued place in society After 1945 there was a desire for more sweeping social change.

Socialism – Socialism is an approach to economic and social systems that is characterised by social ownership, democratic control and high levels of equality. Socialism is generally concerned with ensuring that disparities between wealth and social status are erased from society. After the two World Wars British society was far more open to socialist ideas. In *An Inspector Calls*, the Inspector harbors socialist attitudes.

Social and Moral Responsibility – Attitudes towards social and moral responsibility changed rapidly in the tine between when the play was set (1912) and the time the play was written (1945). In 1912 the general attitude of those with social status and wealth was towards looking after one's own. By the mid-1940s however, the Labour party under Attlee won a landslide election reflecting a wave of enthusiasm towards communal responsibility for everyone in society.

The Titanic – RMS Titanic was a British passenger liner that sank in the North Atlantic ocean in the morning hours of 15th April 1912, killing around 1500. The Titanic was designed to be the pinnacle of both safety and comfort, and due to its enormous size and quality was frequently labeled 'unsinkable'. In *An Inspector Calls* Birling claims this, thus immediately losing the respect of the audience. It can serve as a symbol of the hubris and arrogance of man.

FORM – The play fits into three possible forms:

Well-Made Play

- A popular type of drama from the 19th century
- The events build to a climax
- Primarily concerned with events that happened before the play
- Plot is intricate and complex

Morality Play

- Most popular during 15th and 16th centuries
- They taught the audience lessons that focused on the seven deadly sins
- Characters who committed those sins were punished

Crime Thriller

- Involves a gripping tale based around a crime
- The audience receives clues and must guess what has happened before the end
- All is revealed by the climax

2. Key Characters

Inspector Goole: An enigmatic (mysterious) figure who serves as Priestley's mouthpiece and advocates social justice. He serves as the Birling's conscience and exposes their sins.

Mr Arthur Birling: A capitalist and business owner who opposes social change and greater equality. He is a self-made man and lacks the refined manners of the upper classes. Made a fool by Priestley to highlight the arrogance and absurdity of his views.

Mrs Sybil Birling: Her husband's social superior, Mrs Birling is involved in charity work but contradictorily believes in personal responsibility and looking after one's-self. Fails to understand her own children.

Shelia Birling: Young and initially enthusiastic, Sheila grows and changes throughout the play, embracing the views of the Inspector and challenging the social indifference of her parents. She becomes wiser and more cautious in her relationship with Gerald.

Eric Birling: In his early twenties, he drinks too much and forces himself upon Eva Smith. Whilst she is pregnant with his child, he steals from his father to attempt to support her. Grows and changes, realises his own wrongs along with everyone else's. Critical of parents.

Gerald Croft: A businessman engaged to Sheila, Gerald a relationship with Daisy Renton (Eva Smith). Even though he sits between he two generations he is politically closest to Birling and fails to embrace the Inspector's message, instead seeking to prove he wasn't real.

Eva Smith: Doesn't appear in the play, but her suffering and abuse represents that of all the working classes. She also calls herself both Daisy Renton and Mrs Birling. The older characters begin to question whether she really is one person.

3. Central Themes

Social Responsibility	Priestley advocates a socialist message of collective responsibility for one another. The Inspector serves as his voice in conveying this ideology, but the younger generation also come to embrace it. The suffering of Eva Smith highlights the powerlessness of the working classes and the need for a society that protects is most vulnerable.
Age and the Generational Divide	Priestley presents a view that there is hope for change and that it lies with the younger generation. Both Sheila and Eric change for the better, maturing and becoming more empathetic as they come to embrace the Inspector's message. They also become vocal critics of their parents' indifference to Eva's suffering.
Class and Power	Priestley highlights the immense power that business owners wielded over their workers and presents them as arrogant and lacking in empathy. He demonstrates Edwardian society's preoccupation with wealth and status at the cost of the individual as a way of promoting change in post-WW2 Britain.
Gender	At the time the play was first performed, women had just played a pivotal role in World War 2 and were empowered by the freedom work provided them. In the 1912 setting, we see Sheila's growing independence vs her mother. However, the play still highlights the awful vulnerability of women and the outdated stereotyping of them.

4. Key Vocabulary

Capitalist	Believing in private wealth and business aimed at making profit for business owners. Independent and self-reliant.
Socialist	Believing in shared ownership, collective responsibility for one another and social equality for all.
Ideology	A political viewpoint or set of beliefs, for example socialism.
Responsibility	Being accountable or to blame for something, or having a duty to deal with something.
Hierarchy	A ranking of status or power e.g. the strict class hierarchy of Edwardian England.
Patriarchy	A society in which power lies with men.
Prejudice	An opposition to or opinion about something/someone based upon what they are e.g. working class, female etc.
Morality	The belief that some behaviour is right and some is wrong.
Proletariat	The working class.
Bourgeoisie	The capitalist class in possession of the means of acquiring wealth.
Aristocracy	The highest class in society and often holding titles passed from father to son, for example Lord and Lady Croft.
Façade	A false front or surface-level illusion, for example the façade of family happiness in the opening scene of the play.
Catalyst	Someone or something that speeds up or triggers an event.
Antithesis	When something is the opposite of something else.

5. Key Terminology, Symbols and Devices

Dramatic Irony	When the audience is aware of something that a character is not aware of, for example Birling believing war won't happen.
Plot Twist	When a story suddenly departs from its expected path and something very unexpected happens. The final phone call.
Cliffhanger	Each act ends on a particularly dramatic, revealing moment that creates a sense of tension and anticipation.
Stage Directions	When the playwright instructs actors/director to perform in a particular way. Priestley's are unusually detailed.
Entrances/Exits	Characters frequently leave or enter the stage at dramatic moments. Some characters miss important events.
Lighting	Priestley uses stage directions to indicate how the stage should be lit. Changes to 'brighter and harder' for Inspector.
Props	Physical objects used in the play. The photograph plays a key role in identifying Eva. The doorbell interrupts Birling.
Contrast and Juxtaposition	Deliberately placing two very different things along side one another to draw comparisons e.g. Birling and the Inspector.

AN INSPECTOR CALLS Traditional

1. Context

Playwright:

Dates:
First performed:

Era:
Genre:
Set:

Structure:

Biography of Priestley
-
-
-
-

Pre and Post War –

Socialism –

Social and Moral Responsibility –

The Titanic –

FORM – The play fits into three possible forms:

Well-Made Play	Morality Play	Crime Thriller

2. Key Characters

Inspector Goole:

Mr Arthur Birling:

Mrs Sybil Birling:

Shelia Birling:

Eric Birling:

Gerald Croft:

Eva Smith:

3. Central Themes

Social Responsibility	
Age and the Generational Divide	
Class and Power	
Gender	.

4. Key Vocabulary

Capitalist	
Socialist	
Ideology	
Responsibility	
Hierarchy	
Patriarchy	
Prejudice	.
Morality	
Proletariat	
Bourgeoisie	.
Aristocracy	
Façade	
Catalyst	
Antithesis	

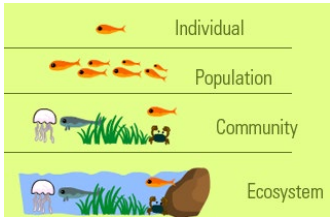
5. Key Terminology, Symbols and Devices

Dramatic Irony	
Plot Twist	
Cliffhanger	
Stage Directions	
Entrances/Exits	
Lighting	
Props	
Contrast and Juxtaposition	

T3 Y11 Combined Science B7 – Ecology

Ecosystems

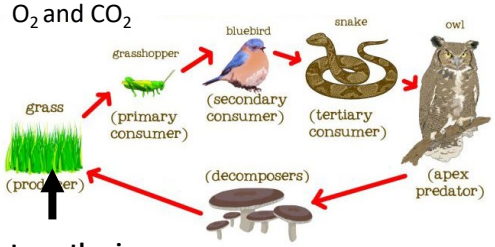
An ecosystem is all the living organisms within an area (community) plus the physical habitat



Interdependence

Organisms rely on each other for…

- Food
- Shelter / nesting sites
- Seed dispersal
- O_2 and CO_2



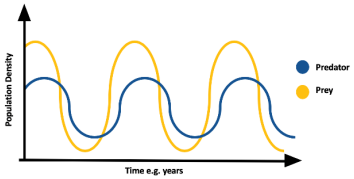
photosynthesise

Biotic and Abiotic Factors

Factors that affect the number of organisms

Biotic – living	Abiotic – non-living
• availability of food • new predators arriving • new pathogens • one species outcompeting another so the numbers are no • longer sufficient to breed.	• light intensity • temperature • moisture levels • soil pH and mineral content • wind intensity and direction • carbon dioxide levels for plants • oxygen levels for aquatic animals.

Predator-Prey Relationships



Population increases and decreases follow similar pattern in a cycle because they affect each other – more prey = more food for predator.

However predator and prey not 'in phase', e.g. predator population changes are delayed as it takes time for the predator population to grow.

Competition

Plants	Animals
Light Space Minerals ions Water	Food Mates Territory

Plant adaptations

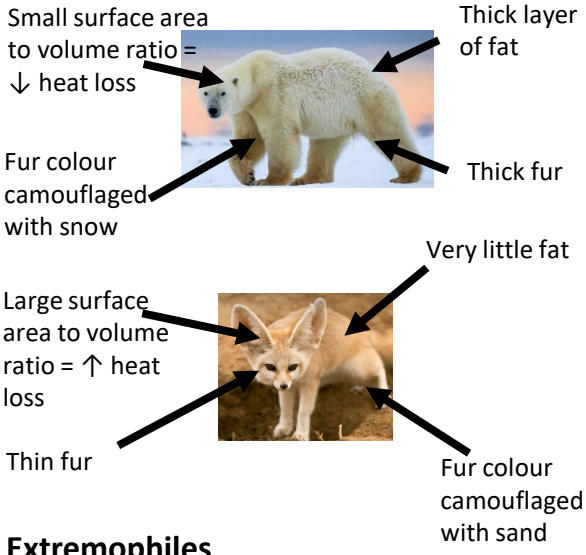
Plants in desert areas have :

- deep roots to maximise water uptake
- thin/no leaves to minimise water loss
- Spines to stop them being eaten

Animal Adaptations

Can be:

- Structural – a feature of the organism's body (e.g. thick fur, bright colours, camouflage)
- Behavioural – responses from the organism (e.g. hibernation, migration, huddling together)
- Functional – a body process (e.g. camel breaking down hump of fat into water, producing little urine



Extremophiles

Extremophiles are organisms that live in extreme environments.
Extreme environments = high temperatures, high pressure or high salt concentration.

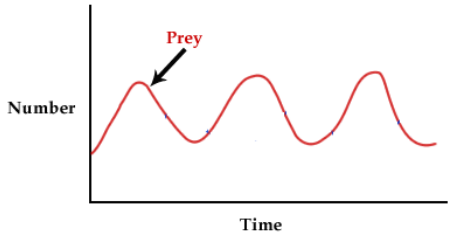
E.g. bacteria living in deep sea vents = extremophiles.

T3 Y11 Combined Science B7 – Ecology

Ecosystems

1. What is a community?
2. What is an ecosystem?
3. Give two things that animals rely on plants for
4. Give two things that plants rely on animals for
5. What is the term given to the predator at the very top of a food chain?
6. Why are green plants known as producers?
7. Name two biotic factors that can affect organisms within a habitat
8. What does the term 'abiotic' mean?
9. Name two abiotic factors

1. Name two things plants compete for
2. Name two things animals compete for
3. Sketch the line to show how the predator population would change on the graph below

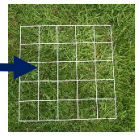


4. Why do some plants have spines instead of leaves?
5. Name two ways plants are adapted for living in desert climates.

1. Name the three types of adaptations
2. Name one behavioural adaptation
3. How are animals adapted to live in cold climates?
4. What are extremophiles?
5. What is the surface area : volume ratio like on desert animals?
6. Give an example of an extremophile

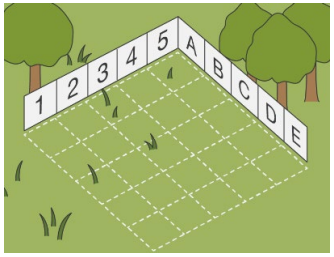
T3 Y11 Combined Science B7 – Ecology

RP7 – Estimating Populations Part 1



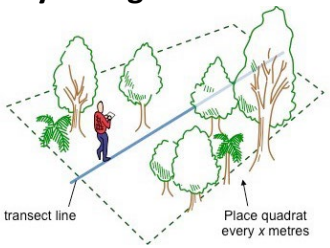
1. Calculate area of site.
2. Divide site up into a numbered grid
3. Use a random number generator to pick coordinates.
4. Randomly throw the 0.25m^2 quadrat at those coordinates.
5. Count the number of particular organism in the quadrat.
6. Repeat steps 3-5 **ten times (minimum).**
7. Calculate mean number of organism.
8. Calculate estimated number organism in site using the following equation

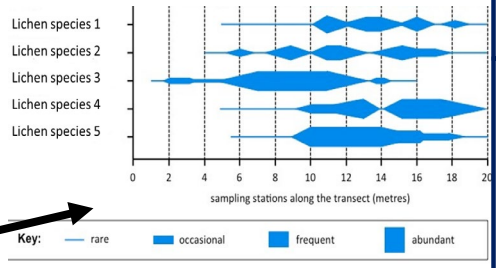
$$\frac{area\ of\ site}{area\ of\ quadrat}\ x\ mean$$



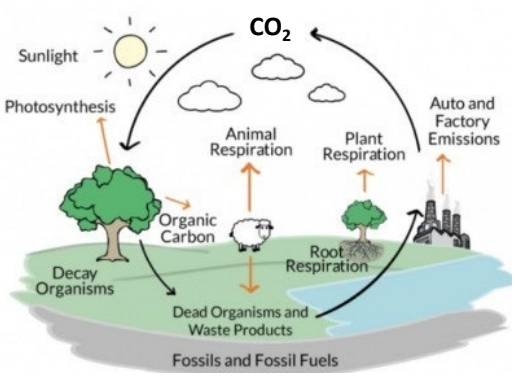
RP7 – how populations may change over a distance

1. Place tape measure (a transect line) through ecosystem being investigated.
2. Place quadrat at regular, random intervals along the transect line and count the number of particular organisms.
3. Draw a distribution graph of your results. (They might look like this.)

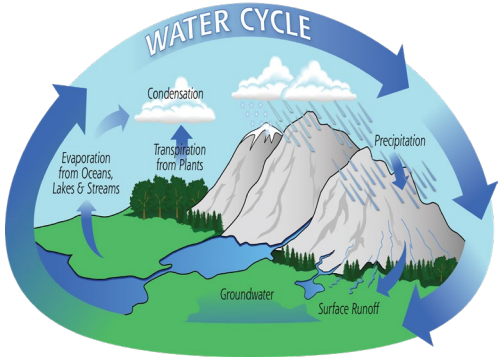




The Carbon Cycle



The Water Cycle



Human Impact on Biodiversity

Waste management	Rapid growth in the human population = more resources are used and more waste is produced – this contributes to pollution. Can occur in water, in air and on land.
Land Use	Humans reduce the amount of land available for other animals and plants by building, quarrying, farming, dumping waste and the destruction of peat bogs.
Deforestation	In tropical areas it has occurred to provide land for cattle and rice fields or grow crops for biofuels.
Global Warming	Levels of carbon dioxide, methane and water vapour in the atmosphere are increasing, and contribute to 'global warming'.

Decay

Microbes such as fungi and bacteria break down dead or dying material. This returns carbon to the atmosphere as carbon dioxide and mineral ions to the soil.

Maintaining Biodiversity

- breeding programmes for endangered species
- protection of rare habitats
- reintroduction of hedgerows
- reduction of deforestation and CO_2 emissions
- increased recycling to avoid landfill

T3 Y11 Combined Science B7 – Ecology

1. What is the minimum number of times the organism should be counted when estimating population size?
2. What is a quadrat?
3. What is the equation used to estimate population size?
4. How can you ensure the quadrat is randomly placed throughout the site?

1. What is a transect line?
2. What is a transect line used to investigate?
3. How is the quadrat placed?

1. Which process takes carbon into plants?
2. What do plants make with the carbon (and water)
3. Name 2 process that releases carbon into the atmosphere as carbon dioxide.
4. What happens to carbon that gets trapped deep underground for millions of years?
5. By which process do plants return water from the ground to the air?

1. Why has large scale deforestation occurred in tropical areas?
2. Name two ways humans use land that reduces biodiversity.
3. Which three gases contribute to global warming?
4. Name 3 types of pollution.

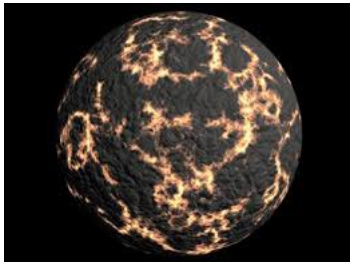
1. Which types of microbes cause decay?
2. What can decay release into the environment?

1. What has been done to prevent some species from becoming extinct?

T3 Y11 Combined Science C9 – Earth & Atmosphere

Early Atmosphere vs modern atmosphere:

Gas	Levels in earth's early atmosphere	Percentage in air today
Nitrogen	None	78
Oxygen	None	21
Others – CO_2 and argon	Very High	1
Water vapour	Very high	Varies – but usually only around 1%
Ammonia	High	None



4.6 billion years →

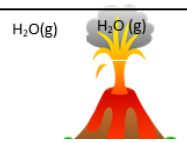
We think that the atmosphere on Earth was once like that of Mars or Venus is today

When Earth was formed it was so hot it was molten on the surface, and the atmosphere was full of toxic gases like methane and ammonia.

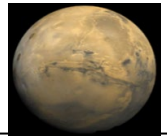
We cannot be sure about exactly what the Earth's early atmosphere as we have no evidence from so long ago

How did the atmosphere change?

1. Volcanoes released nitrogen, carbon dioxide and water vapour



2. The earth cooled and solidified

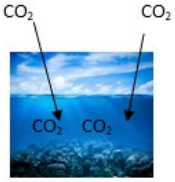


3. Water vapour in the atmosphere condensed and feel as rain

4. Oceans, lakes and rivers formed

5. Carbon dioxide from the air dissolved in the oceans

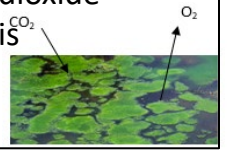
6. Some of this reacted to form sedimentary rocks like limestone



7. Algae and then plants evolved, removing carbon dioxide from the air and produced oxygen by photosynthesis

Carbon dioxide + water → glucose + oxygen

$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$



8. Many early plants and marine organisms were buried and decayed underground, locking up carbon in fossil fuels like coal (plants) and oil (animals)

T3 Y11 Combined Science C9 – Earth & Atmosphere

1. Name two gases that were present in large quantities in Earth's early atmosphere

2. What is the most abundant gas in today's atmosphere?

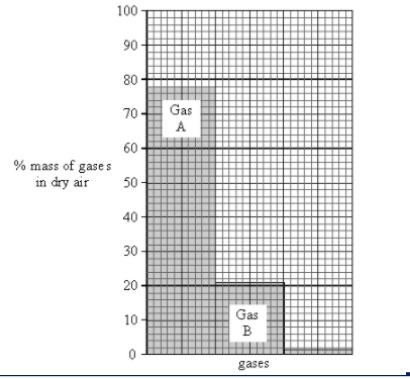
3. Which two planets do we think Earth's early atmosphere was similar to?

4. Why can we not be sure about the Earth's early atmosphere?

5. Give two differences between the early atmosphere and today's atmosphere.

6. The data for today's atmosphere is shown on the chart below:

Use the table on page 1 to name:
Gas A
Gas B



1. How did nitrogen form in the atmosphere?

2. How did water vapour levels decrease?

3. Name 2 ways carbon dioxide was removed from the early atmosphere before plants evolved.

4. Which organisms were the first to photosynthesise?

5. Why did oxygen levels rise?

6. Write the equation for photosynthesis

7. What is 'locked up carbon'?

8. Describe how carbon dioxide in the air ended up in rocks like limestone

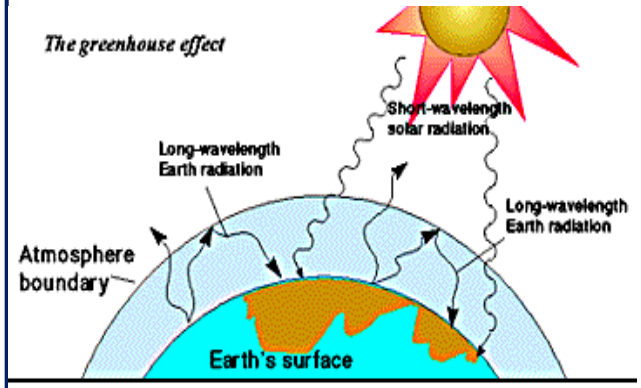
9. How was coal formed?

T3 Y11 Combined Science C9 – Earth & Atmosphere

The greenhouse effect

The greenhouse layer is a layer of gases in the atmosphere made of:

- carbon dioxide
- methane
- water vapour



1. Short wavelength infrared radiation from the sun reaches Earth
2. Some energy is absorbed by the Earth
3. Longer wavelength IR is reflected by the Earth
4. Longer wavelength IR cannot get through the greenhouse layer as easily so some is trapped, warming the Earth

The thicker the layer of gases, the more heat is trapped

Global warming

The greenhouse layer is getting thicker, because:

- CO_2 released from fossil fuels to generate electricity
- CO_2 released from fossil fuels in vehicles
- Methane released from cattle
- Methane released from rotting landfill sites

Many scientists believe that human activities are causing the warming of the Earth.

Potential consequences:

- Melting ice caps
- Loss of habitats for animals and plants
- Damage to coral reefs caused by warmer oceans
- Changes to animal migration patterns
- Extreme weather patterns – more hurricanes, heat waves, droughts, snow and ice
- Difficulty growing crops so reduced food supply

Carbon footprint

The total amount of CO_2, CH_4 and water vapour released by of a product or service.
E.g for a concert:

- electricity in performance
- Fossil fuels used by people travelling there
- Plastics used and disposed of in refreshments etc

Carbon footprints can be reduced by recycling, reducing energy use or eating vegetarian diets but this is hard to get people to do.

Pollutants :

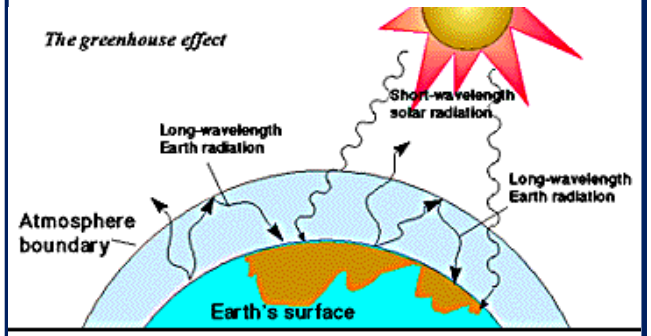
Pollutant	Source	Effects
Carbon dioxide	Combustion	Global warming
Carbon monoxide	Incomplete combustion of fuels	Toxic gas, can be fatal
Sulfur dioxide	Traces of sulfur in coal react with oxygen when burned	Acid rain
Nitrogen oxides	Hot engines provide the energy for N_2 to react with O_2	Acid rain
particulates	Incomplete combustion	Global dimming, breathing problems

T3 Y11 Combined Science C9 – Earth & Atmosphere

The greenhouse effect

1. What is the 'greenhouse' layer?

2. Name the 3 greenhouse gases



1. What sort of radiation is emitted from the sun?

2. How is the wavelength of the radiation reflected from Earth different than that from the sun?

3. Why is some heat trapped?

4. What is the relationship between the thickness of the layer and the amount of heat trapped?

Global warming

1. Name two human activities that release CO_2

2. Name two sources of methane

1. Name two impacts of global warming on animals

2. Why might coral reefs be damaged by global warming?

3. Why might our food supply be under threat?

Carbon footprint

1. What is the 'carbon footprint'?

2. Name two ways a person can reduce their carbon footprint.

3. Why is it difficult to get people to reduce their carbon footprint?

Pollutants :

Pollutant	Source	Effects
Carbon dioxide		Global warming
	Incomplete combustion of fuels	Toxic gas, can be fatal
Sulfur dioxide		
Nitrogen oxides		Acid rain
particulates		

T3 Y11 Combined Science C10 – Using Resources

Earth's Resources

We use Earth's resources to provide **warmth, shelter, food and transport**. E.g.:

- metals from the Earth's crust to build buildings and cars
- Timber and oil to burn for warmth
- Crop plants for food
- Products from crude oil to serve as fuels in cars, trains and planes

Finite resources – ones that will run out as they are being used much faster than they can be replaced, e.g. oil

Renewable resources – resources that will not run out, e.g. wood, wind etc.

Chemistry plays an important part in finding improvements or alternatives to current resources.

Natural	Improved or replaced by….
Wood for furniture	Plastic/polymers
Food crops	Fertilisers/artificially grown foods such as Quorn
Oil for fuel	Ethanol/hydrogen fuel cells
Rubber for tyres	Polymers

Life-Cycle Assessments (LCA)

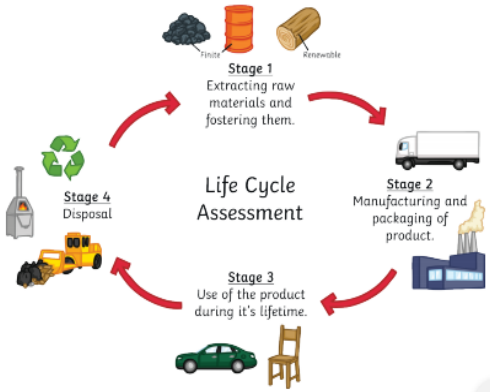
- These assess the environmental impact of a product in these stages:

Stage 1 – extracting raw materials needed to make products.
- Energy cost and effect on habitats of extraction
- Are the raw materials finite/renewable?

Stage 2 – Manufacturing and packaging product
- How much energy and resources are needed?
- What waste products/pollution are released?
- Transportation of goods from factors to user need considering.

Stage 3 – Use of product during its lifetime
- E.g. a car has a significant impact as needs filled up with petrol which is a finite resource.

Stage 4 – Disposal at end of product's life.
1) Landfill – high environmental impact
2) Incineration – burning of product
3) Recycling – e.g. batteries contain metals that are harmful to environment – recycling means no new compounds need to be taken out of the ground.



Example LCA for plastic vs paper bags:

Stage of Life Cycle Assessment	Plastic Bag	Paper Bag
Stage 1 – raw material	Uses finite resource. Process of fractional distillation, cracking and polymerisation all require energy.	Made from trees/recycled paper. Making paper from trees required more energy than recycled paper. Less energy than plastic bags.
Stage 2 – Manufacture	Cheap to make	More expensive to make
Stage 3 – Use	Low environmental impact as can be re-used many times. Much stronger product.	Only be reused a limited number of times – short lifetime.
Stage 4 - disposal	Do not biodegrade easily in landfill.	Paper bags degrade easily in landfill sites.

- Different people have different opinions and so depends on who completes the LCA. Bias may be added.
- Some companies may only discuss some of environmental impacts of their product.
- Accurate numerical values should be used where possible – for example to show how much energy has been used.

T3 Y11 Combined Science C10 – Using Resources

1. What are the 4 main uses of the Earth's materials?
2. What is a renewable resource?
3. What is a finite resource?
4. Give an example of a finite resource
5. Give an example of a renewable resource
6. Give an example of a natural product that has been replaced by modern chemistry or farming.

1. What does LCA stand for?
2. What does an LCA assess?
3. What are the 4 stages that are assessed in an LCA?
4. Suggest one environmental impact of extraction of raw materials such as metals or oil.
5. Name two ways products are disposed of at the end of their 'life'

1. Why might an LCA be inaccurate?
2. What are the raw materials for a

a) paper bag
b) plastic bag

3. Why might the disposal of a plastic bag have a greater environmental impact than the disposal of a paper one?

T3 Y11 Combined Science C10 – Using Resources

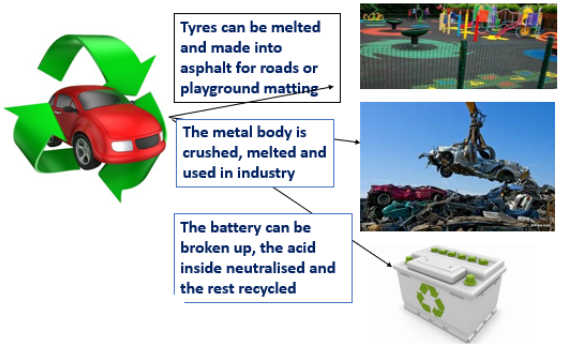
Reducing the use of resources

Metals, glass, ceramics, building materials and most plastics are produced from limited resources.
The energy for the processes involved in making/extracting raw materials also comes from limited resources – e.g. oil.
We can reduce the use of limited resources by reducing use, reusing materials and recycling materials at the end of their life.

Reduce, reuse, recycle.

E.g.

- Glass bottles can be reused.
- Metals can be melted down and recast and so recycled.
- Scrap steel can be added to extracted iron to reduce the amount of iron that has to be extracted in the blast furnace.



Evaluating methods to reduce, reuse, recycle

Advantages	Disadvantages
Fewer resources such as mines and quarries are needed to extract finite materials	Requires collection and transport of items – involving staff, vehicles and use of fuel
Crude oil does not need to be extracted – avoids high energy costs for fractional distillation etc.	Materials, such as metals, very often have to be separated from other materials first
Less greenhouse gases produced.	Some metals need melting before being reused – energy costs.
Less items in landfill	

Biological extraction techniques (HT only)

- Earth's supply of metal ores is limited.
- There are fewer sites that give lots of copper (high grade ore sites)
- New ways of extracting from low grade ore sites are:

- Phytomining
- Bioleaching

Disadvantage = **slow processes**
Advantage = reduce need for the traditional mining methods of digging, moving and disposing of large amounts of rock.

Phytomining (HT only)

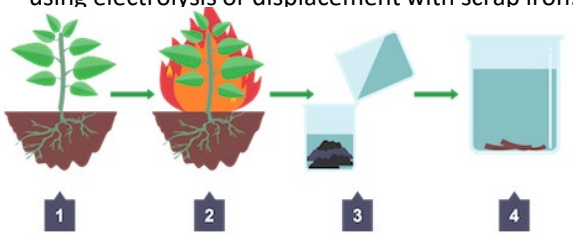
1) Plants are grown on a low-grade ore

2) The plants absorb metal ions through their roots

3) The plants are harvested and burnt

4) Ash left behind contains metal compounds

5) Ash is dissolved in acid and copper is extracted using electrolysis or displacement with scrap iron.



Bioleaching (HT only)

- Uses **bacteria** to produce a solution called **leachate** – contains copper ions.
- The copper can be extracted by using iron to **displace** the copper from the leachate.

- Does not need high temperatures
- Produces **toxic substances** which can damage the environment.

- Iron is cheaper than copper – use of scrap iron is a cost-effective way to produce copper from leachate.

- Can also undergo **electrolysis** to produce copper.

T3 Y11 Combined Science C10 – Using Resources

1. Give three ways we can reduce our use of limited resources.
2. Give an example of a product that can be reused
3. What has to be done to metals before they can be recast?
4. How is scrap iron used to reduce the amount of iron needing to be extracted?

1. State two advantages of recycling.
2. State two disadvantages of recycling.

1. What is a 'high grade ore' site?
2. Name the two biological extraction techniques
3. State a disadvantage of biological extraction techniques.

1. What organisms are used in phytomining?
2. What happens to the plants once they've grown?
3. What is used to displace the copper ions from solution?
4. What organisms are used in bioleaching?

T3 Y11 Combined Science C10 – Using Resources Water

Potable Water

- Water is **essential** for life.
- **Potable water is** water that is safe to drink.
- Potable water is not pure as it contains some dissolved substances.

In the UK – rain water provides water with low levels of dissolved substances that collects in the ground and in lakes and rivers. This is fresh water.

Most potable water is produced by:
1) Choosing an appropriate source of fresh water
2) Passing the water through filter beds
3) Sterilising to kill bacteria

Sterilising agents used for potable water include:
- Chlorine
- Ozone
- Ultraviolet light

Desalination of Sea Water

- **Potable** water can be made from sea water through desalination.
- Required a lot of **energy** to **remove salt** in sea water.

Can be done by:

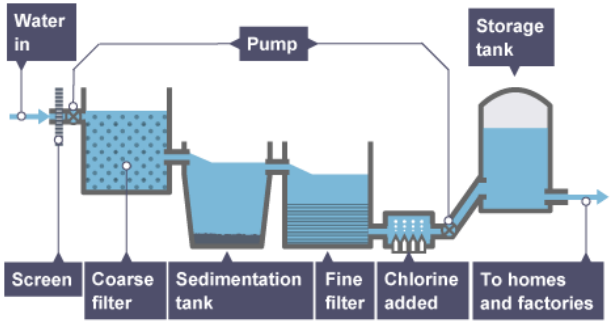
Distillation
- Sea water heated until it boils
- Steam is **condensed** to make potable water
- Requires a lot of **energy**

Reverse Osmosis
- Water put under **high pressure** and passed through **membrane** with tiny holes in.
- Holes allow water through but not salt/ions
- Very **expensive**
- Produces **large volumes** of waste water.

Waste Water Treatment

- Waste water needs to be treated before being released back into environment

Pollutants can be present in waste water including:
- Human waste contains harmful **bacteria** and nitrogen – can harm aquatic ecosystems.
- Industrial waste can contain **toxic** substances
- Agricultural waste water can contain **fertilisers** or **pesticides** – disrupt ecosystems.



Sewage treatment involves:

1) Screening and grit removal to remove large particles

2) Sedimentation – allows tiny particles to settle – produces sewage sludge and effluent (liquid that remains on the top)

3) Sewage sludge is digested anaerobically by specific bacteria

4) Effluent is treated with aerobic bacteria to reduce volume of solid waste.

T3 Y11 Combined Science C10 – Using Resources

1. What is potable water?

2. What is fresh water?

3. Where does fresh water collect in the UK?

4. After finding an appropriate source of water, what two stages are needed to make it potable?

5. What are the 3 methods of sterilising water?

6. Why is water treated with chlorine?

1. How can potable water be made from sea water?

2. Give a disadvantage of this technique.

3. Describe the process of distillation.

4. Describe the process of reverse osmosis.

1. State three pollutants that may be present in waste water.

2. Complete the table to explain the steps in treating waste water.

Step	**Explanation**
Screening	
Sedimentation	
Anaerobic digestion	
Aerobic digestion	

T3 Y11 Combined Science – Using Resources – Required Practical – Analysis and purification of water

Analysing the pH of Water Samples

- Test pH of each water sample using pH probe or universal indicator.
- Compare to pH chart if using universal indicator

Analysis the Mass of Dissolved Solids

1) Measure out 50 cm^3 of water sample using measuring cylinder.

2) Take the mass of evaporating basin using top pan balance.

3) Heat the sample in the evaporating basin gently until all liquid evaporates.

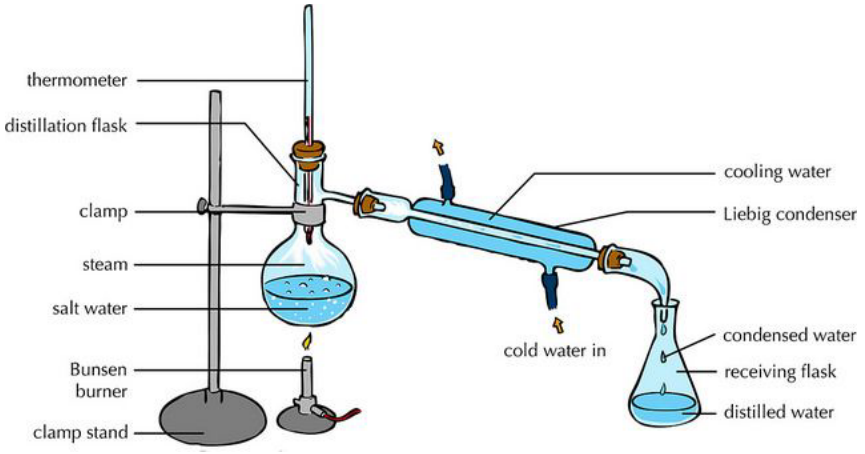
4) Let the evaporating basin cool

5) Re-take the mass of the evaporating basin.

6) Calculate the mass of the solid left behind by doing: final mass – initial mass.

7) Repeat with different water samples (e.g. rainwater, salt water, spring water)

Distillation of water Sample



1) Set up apparatus as shown in picture with the sample of water in the round bottom flask.

2) Heat water sample until it boils gently.

3) Water vapour enters the tube at the side (condenser)

4) There is cold water surrounding the tube

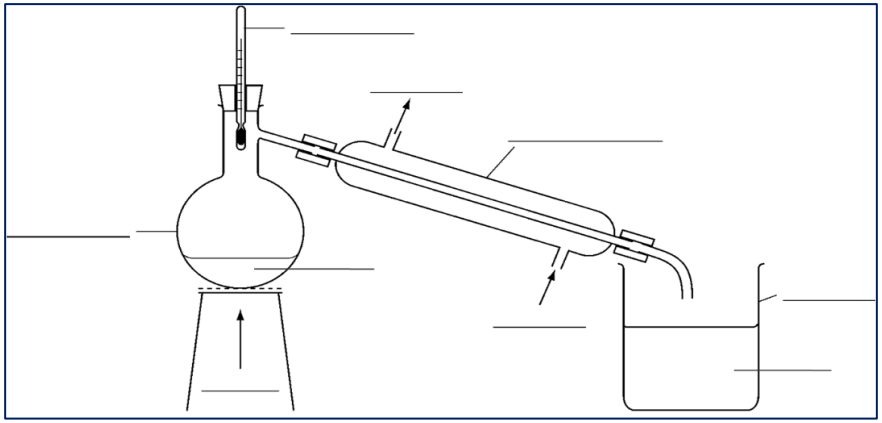
5) The water vapour cools and condenses and collects in the flask.

6) The water collected should be **pure**.

T3 Y11 Combined Science C10 – Using Resources – Required Practical – Analysis and purification of water

1. Write a method of how to investigate the mass of solids in different samples of water.

1. Label the diagram below to show how to purify salt water.



Bunsen, water sample, water, beaker, condenser, water in, water out, thermometer, round bottom flask

2. What is the name of this technique?

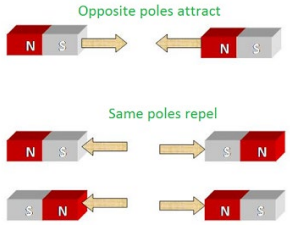
3. What two changes of state happen during this?

4. Describe the water that is collected in the beaker

T3 Y11 Combined Science P7 – Magnetism and Electromagnetism

Magnets

- Have two poles - **north** and **south**.



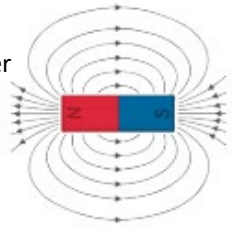
- **Like poles** will **repel** each other (e.g. N-N or S-S)
- **Opposite poles** will **attract** (e.g. N-S)

- Magnetism is a **non-contact** force – magnets do not need to be touching for effect to be observed.

Magnetic materials: only **iron/steel, cobalt** and **nickel** are magnetic.

Magnetic Fields

Magnetic field = the area surrounding a magnet where the force will act on another magnet or magnetic material.



- Magnet field is strongest at the **poles** where the field lines are **closest together**.

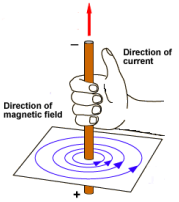
- Field lines always go away from **magnetic north** and towards **magnetic south**.

Earth's Magnetic Field

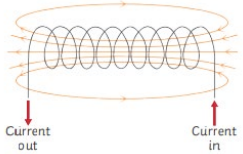
- Earth produces a magnetic field.
- Magnetic compasses use this to help navigation.
- The core of the Earth is made of **iron** (magnetic).

Electromagnetism

- When a current passes through a wire, a **magnetic field** is produced
- The direction of the field can be found by the right hand thumb rule
- curl the fingers of the right hand around the wire and point the thumb in the direction of the current (+ to -)
- The direction of the circular field is shown by the fingers
- Strength of magnet can be increased by increasing the current
- When the current is switched off, the magnetic field is lost



Coiling the wire will form a **solenoid**.



To increase strength of magnetic field around a solenoid you can:

- Add an **iron core**
- **Increase number of turns** in coil
- **Increase the current** passing through wire

Types of magnets

Permanent magnet

- Produces its own magnetic field.
- Magnetism cannot be turned on or off.

Induced magnet

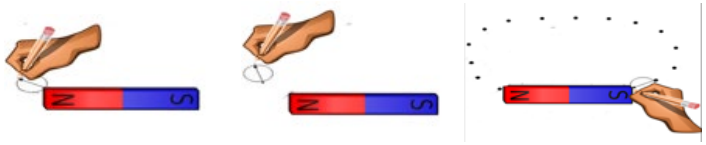
- Induced magnet = a material which becomes magnetic when placed in a magnetic field.
  - Induced magnets only attract other materials and lose magnetism when removed from the magnetic field.

Plotting Magnetic Field Lines

A magnetic compass can be used to plot and draw the magnetic field lines around a magnet.

You need to be able to describe this method!

1. Place the bar magnetic in centre of paper.
2. Place a plotting compass at one end of the magnet.
3. Put a pencil dot at the place the compass arrow is pointing to
4. Move the compass to line up the tail of the compass needle to the dot you just made.
5. Repeat until you reach the other end of the magnet



6. Join the dots using a line – this is the magnetic field line. Mark on the direction the arrow pointed – it should run N→S

Electromagnets

- Electromagnet is a solenoid with an iron core.
- Are **induced magnets** (can be turned on and off)

Uses = electric motors, loudspeakers, electric bells, scrapyards.

T3 Y11 Combined Science P7 – Magnetism and Electromagnetism

1. Name the two poles on a magnet.
2. What will like poles do?
3. What will opposite poles do?
4. Why is magnetism a 'non-contact' force?
5. Which metals are magnetic?

1. What is a magnetic field?
2. Where is the magnetic field the strongest?
3. Which direction do the field lines go?
4. Draw the magnetic field around a bar magnet.
5. What is the Earth's core made of?
6. What can the Earth's magnetic field be used for?

1. What is produced when a current flows through a wire?
2. How can you increase the strength of a magnetic field of a straight wire?
3. What is produced when you coil the wire?
4. How can you increase the magnetic field around a solenoid? (3 ways)

1. What are the two types of magnets?
2. Name two differences between these two types of magnets.

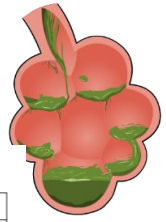
1. Describe a method to plot the magnetic field of a bar magnet.

5. What is an electromagnet?
6. What is meant by induced magnet?
7. State 2 uses of electromagnets.

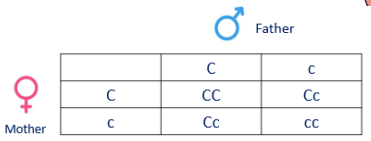
T3 Y11aSc2 Combined Science (for higher) B6 – Inheritance, Variation and Evolution

Inherited disorders

Cystic fibrosis
Disorder of cell membranes
Caused by a recessive allele
Causes thick mucus to form in membranes
Main organs affected are lungs, digestive & reproductive organs – pancreas and intestines.



Alveoli get blocked with mucus
Increases diffusion path so less O_2 gets into the blood



Polydactyly
Disorder of the hands and feet
Caused by a dominant allele
Causes extra digits, fingers and toes.

Embryo screening
Parents that have inherited disorders may opt for embryo screening

1. Multiple embryos are made in IVF
2. One cell is removed from each embryo
3. The cells are screened for faulty genes
4. Only embryos without the genes for disorders are transferred to the womb of the mother.

+ Babies born free of that inherited disorder
- no guarantee child will be free of other health issues
- Many embryos are destroyed, which are potential human lives

Variation

May be due to differences in:
- Genes that have been inherited(genetic causes)
- Conditions which they have lived in (environmental causes)

- Combination of genes and the environment.

Mutation = a change in the DNA during copying (randomly). Often has no effect on the gene, but sometimes leads to new proteins being made and a new characteristic being seen

Evolution

Evolution = a change in inherited characteristics of a population over time through natural selection – could lead to a new species.
A **species** is a group of organisms that can successfully breed.
Theory of evolution states that all species have evolved from a simple life forms more than 3 billion years ago.

Natural Selection

Described by Darwin
1. **Variation** within a species – different genes. (due to **mutation**)

2. One gene may give characteristics that are better **adapted** for survival in the environment.

3. Those with **advantageous genes** will survive and reproduce – passing genes to **offspring**.

4. Over long periods of time, all members of that species have the characteristic, may even lead to a new **species**.

Extinction

Extinction = no remaining individuals of a species still alive on Earth.

Factors which could cause extinction:
- New disease
- Rapid change in environment (e.g. meteor/volcano eruption)
- New predators
- New competitors (often man)

Evidence for evolution

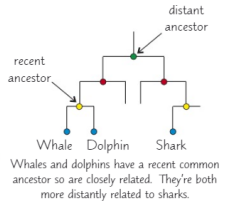
Fossils

Fossils are the **remains of plants or animals** from **millions of years ago:**
They are formed in different ways:
- Remains of an organism that has not fully decayed as one of the decay conditions was absent (e.g. too cold, not enough O_2)
- Mineralised forms of the harder parts of an organisms (such as bones)
- Traces of organisms such as footprints or burrows.

Many early life forms were **soft bodied** so have left few traces behind, as they decayed so we cannot be sure how life started on Earth. Many have been destroyed by Earth's rock cycle. Fossils help us understand how much or little organisms have changed as life developed on Earth.

Evolutionary trees

Show how species have volved from and are related to others



T3 Y11aSc2 Combined Science (for higher) B6 – Inheritance, Variation and Evolution

1. What is cystic fibrosis a disorder of?
2. Is the allele for cystic fibrosis dominant or recessive?
3. Why do cystic fibrosis sufferers struggle to get oxygen into the body?
4. What is polydactyly?
5. Is the allele for polydactyly dominant or recessive?
6. Give one advantage of embryo screening
7. Give one disadvantage of embryo screening

1. What are the two causes of variation?
2. What is a mutation?
3. Which scientist proposed the theory of evolution by natural selection?
4. What is the theory of evolution?
5. What is a species?
6. Why do mutations sometimes lead to new characteristics being seen?

1. What does 'extinct' mean?
2. What are fossils?
3. Describe one way fossils can form
4. What do fossils show us?
5. Why is the fossil record incomplete?
6. What factors can cause extinction?

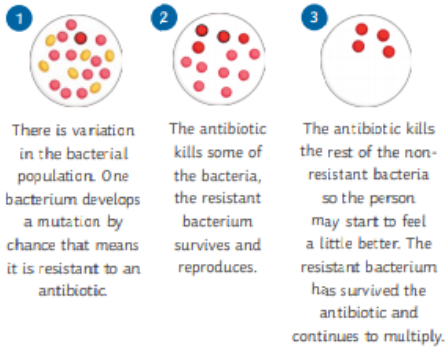
T3 Y11aSc2 Combined Science (for higher) B6 – Inheritance, Variation and Evolution

Resistant Bacteria

- Bacteria **evolve** rapidly as they reproduce at a fast rate. (reproduce approx. every 20 mins)
- Mutations of bacteria can produce new strains.

- Some strains are **resistant** to antibiotics (so are not killed).
- They **survive** and **reproduce** – population of resistant strain rises.
- Resistant strain will spread because people are not **immune** and there is no effective treatment.

- **MRSA** is **resistant** to antibiotics.



How to reduce antibiotic resistant strains:

- Doctors should not prescribe antibiotics for viral infections

- Patients must complete courses of antibiotics

- Agricultural use of antibiotics should be restricted.

Genetic Engineering

- Process which involves modifying the **genome** of an organism by introduction a gene from another organism to give a **desired characteristic**.

Uses of genetic engineering:

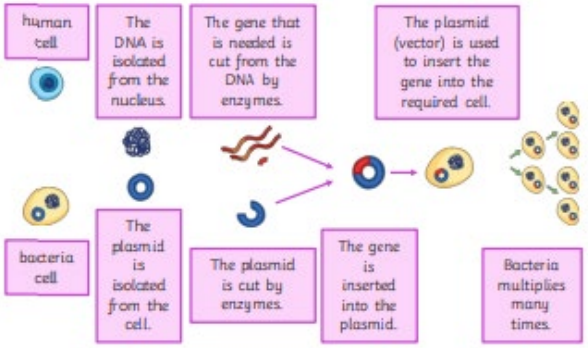
- Plant crops to be **resistant** to diseases or produce bigger, better fruits.

- Bacteria cells to produce useful substances, such as human insulin to treat diabetes.

Genetically modified (GM) crops

Advantages	Disadvantages
Resistant to insect attack	Not sure on long term effects when eating GM crops
Produce increased yields	Could affect populations of wild flowers and insects

Process of Genetic Engineering (HT only)

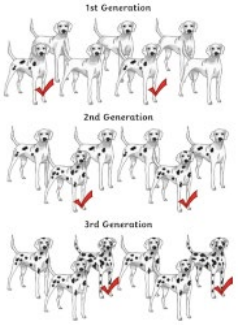


Selective Breeding

- Process which humans breed plants and animals for particular **genetic characteristics**.

Steps of selective breeding:

1. Choose a male and female with **desired characteristics.**



2. Breed together

3. Pick the offspring which have the desired characteristic and breed together.

4. Continue over many generations, selecting the best offspring each time, until all offspring show desired characteristics.

Classification

Linnaeus classified things into: Kingdom, phylum, class, order, family genus and species.

Organisms are named by the **binomial system** of genus and species. (2 names)

Due to evidence from chemical analysis, there is now a 'three-domain system' by Carl Woese:

Domain	bacteria	archaea	eukaryota			
Kingdom	eubacteria	archaebacteria	protista	fungi	plantae	animalia

T3 Y11aSc2 Combined Science (for higher) B6 – Inheritance, Variation and Evolution

1. Why do bacteria evolve rapidly?
2. What can cause new strains of bacteria?
3. Name a bacteria which is resistant to antibiotics.
4. What are the three ways to reduce antibiotic resistance strains?

1. What is genetic engineering?
2. State two uses of genetic engineering.
3. What does 'GM' stand for?
4. State two advantages of GM crops.
5. State two disadvantages of GM crops.
6. Describe the stages of genetic engineering (HT only).

1. 1. What is selective breeding?
2. Describe the four stages of selective breeding.
3. Why might a characteristic be chosen?
4. Give 3 examples of characteristics humans may choose.

1. How did Linnaeus classify organisms?
2. What are Carl Woese's three domains?
3. What does 'binomial' mean?

T3 Y11aSc2 Combined Science (for higher) ce C10 – Using Resources

Earth's Resources

We use Earth's resources to provide **warmth, shelter, food and transport**. E.g.:

- metals from the Earth's crust to build buildings and cars
- Timber and oil to burn for warmth
- Crop plants for food
- Products from crude oil to serve as fuels in cars, trains and planes

Finite resources – ones that will run out as they are being used much faster than they can be replaced, e.g. oil

Renewable resources – resources that will not run out, e.g. wood, wind etc.

Chemistry plays an important part in finding improvements or alternatives to current resources.

Natural	Improved or replaced by….
Wood for furniture	Plastic/polymers
Food crops	Fertilisers/artificially grown foods such as Quorn
Oil for fuel	Ethanol/hydrogen fuel cells
Rubber for tyres	Polymers

Life-Cycle Assessments (LCA)

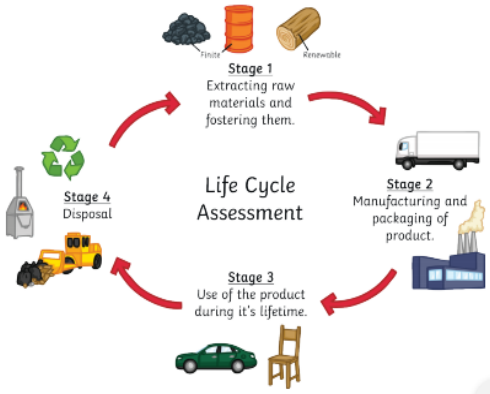
- These assess the environmental impact of a product in these stages:

Stage 1 – extracting raw materials needed to make products.
- Energy cost and effect on habitats of extraction
- Are the raw materials finite/renewable?

Stage 2 – Manufacturing and packaging product
- How much energy and resources are needed?
- What waste products/pollution are released?
- Transportation of goods from factors to user need considering.

Stage 3 – Use of product during its lifetime
- E.g. a car has a significant impact as needs filled up with petrol which is a finite resource.

Stage 4 – Disposal at end of product's life.
1) Landfill – high environmental impact
2) Incineration – burning of product
3) Recycling – e.g. batteries contain metals that are harmful to environment – recycling means no new compounds need to be taken out of the ground.



Example LCA for plastic vs paper bags:

Stage of Life Cycle Assessment	Plastic Bag	Paper Bag
Stage 1 – raw material	Uses finite resource. Process of fractional distillation, cracking and polymerisation all require energy.	Made from trees/recycled paper. Making paper from trees required more energy than recycled paper. Less energy than plastic bags.
Stage 2 – Manufacture	Cheap to make	More expensive to make
Stage 3 – Use	Low environmental impact as can be re-used many times. Much stronger product.	Only be reused a limited number of times – short lifetime.
Stage 4 - disposal	Do not biodegrade easily in landfill.	Paper bags degrade easily in landfill sites.

- Different people have different opinions and so depends on who completes the LCA. Bias may be added.
- Some companies may only discuss some of environmental impacts of their product.
- Accurate numerical values should be used where possible – for example to show how much energy has been used.

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources

1. What are the 4 main uses of the Earth's materials?

2. What is a renewable resource?

3. What is a finite resource?

4. Give an example of a finite resource

5. Give an example of a renewable resource

6. Give an example of a natural product that has been replaced by modern chemistry or farming.

1. What does LCA stand for?

2. What does an LCA assess?

3. What are the 4 stages that are assessed in an LCA?

4. Suggest one environmental impact of extraction of raw materials such as metals or oil.

5. Name two ways products are disposed of at the end of their 'life'

1. Why might an LCA be inaccurate?

2. What are the raw materials for a
a) paper bag
b) plastic bag

3. Why might the disposal of a plastic bag have a greater environmental impact than the disposal of a paper one?

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources

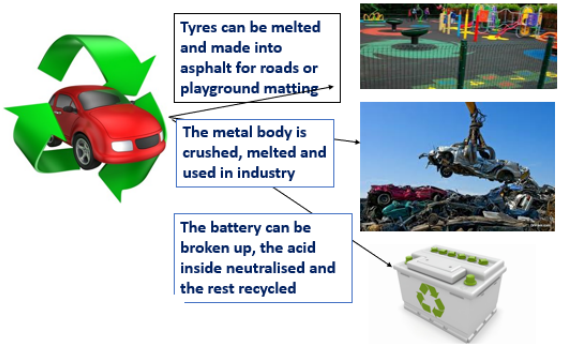
Reducing the use of resources

Metals, glass, ceramics, building materials and most plastics are produced from limited resources.
The energy for the processes involved in making/extracting raw materials also comes from limited resources – e.g. oil.
We can reduce the use of limited resources by reducing use, reusing materials and recycling materials at the end of their life.

Reduce, reuse, recycle.

E.g.

- Glass bottles can be reused.
- Metals can be melted down and recast and so recycled.
- Scrap steel can be added to extracted iron to reduce the amount of iron that has to be extracted in the blast furnace.



Evaluating methods to reduce, reuse, recycle

Advantages	Disadvantages
Fewer resources such as mines and quarries are needed to extract finite materials	Requires collection and transport of items – involving staff, vehicles and use of fuel
Crude oil does not need to be extracted – avoids high energy costs for fractional distillation etc.	Materials, such as metals, very often have to be separated from other materials first
Less greenhouse gases produced.	Some metals need melting before being reused – energy costs.
Less items in landfill	

Biological extraction techniques (HT only)

- Earth's supply of metal ores is limited.
- There are fewer sites that give lots of copper (high grade ore sites)
- New ways of extracting from low grade ore sites are:

- Phytomining
- Bioleaching

Disadvantage = **slow processes**
Advantage = reduce need for the traditional mining methods of digging, moving and disposing of large amounts of rock.

Phytomining (HT only)

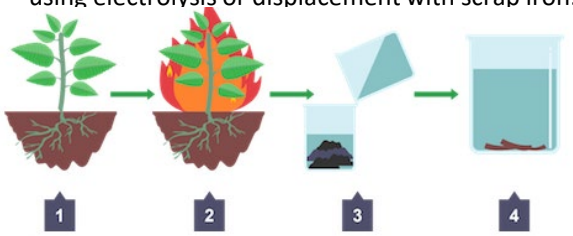
1) Plants are grown on a low-grade ore

2) The plants absorb metal ions through their roots

3) The plants are harvested and burnt

4) Ash left behind contains metal compounds

5) Ash is dissolved in acid and copper is extracted using electrolysis or displacement with scrap iron.



Bioleaching (HT only)

- Uses **bacteria** to produce a solution called **leachate** – contains copper ions.
- The copper can be extracted by using iron to **displace** the copper from the leachate.

- Does not need high temperatures
- Produces **toxic substances** which can damage the environment.

- Iron is cheaper than copper – use of scrap iron is a cost-effective way to produce copper from leachate.

- Can also undergo **electrolysis** to produce copper.

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources

1. Give three ways we can reduce our use of limited resources.
2. Give an example of a product that can be reused
3. What has to be done to metals before they can be recast?
4. How is scrap iron used to reduce the amount of iron needing to be extracted?

1. State two advantages of recycling.
2. State two disadvantages of recycling.

1. What is a 'high grade ore' site?
2. Name the two biological extraction techniques
3. State a disadvantage of biological extraction techniques.

1. What organisms are used in phytomining?
2. What happens to the plants once they've grown?
3. What is used to displace the copper ions from solution?
4. What organisms are used in bioleaching?

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources Water

Potable Water

- Water is **essential** for life.
- **Potable water is** water that is safe to drink.
- Potable water is not pure as it contains some dissolved substances.

In the UK – rain water provides water with low levels of dissolved substances that collects in the ground and in lakes and rivers. This is fresh water.

Most potable water is produced by:
1) Choosing an appropriate source of fresh water
2) Passing the water through filter beds
3) Sterilising to kill bacteria

Sterilising agents used for potable water include:
- Chlorine
- Ozone
- Ultraviolet light

Desalination of Sea Water

- **Potable** water can be made from sea water through desalination.
- Required a lot of **energy** to **remove salt** in sea water.

Can be done by:

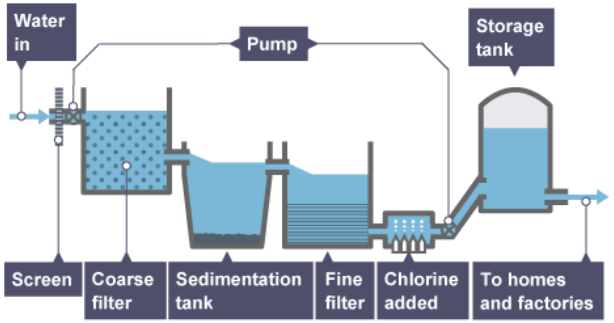
Distillation
- Sea water heated until it boils
- Steam is **condensed** to make potable water
- Requires a lot of **energy**

Reverse Osmosis
- Water put under **high pressure** and passed through **membrane** with tiny holes in.
- Holes allow water through but not salt/ions
- Very **expensive**
- Produces **large volumes** of waste water.

Waste Water Treatment

- Waste water needs to be treated before being released back into environment

Pollutants can be present in waste water including:
- Human waste contains harmful **bacteria** and nitrogen – can harm aquatic ecosystems.
- Industrial waste can contain **toxic** substances
- Agricultural waste water can contain **fertilisers** or **pesticides** – disrupt ecosystems.



Sewage treatment involves:

1) Screening and grit removal to remove large particles

2) Sedimentation – allows tiny particles to settle – produces sewage sludge and effluent (liquid that remains on the top)

3) Sewage sludge is digested anaerobically by specific bacteria

4) Effluent is treated with aerobic bacteria to reduce volume of solid waste.

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources

1. What is potable water?

2. What is fresh water?

3. Where does fresh water collect in the UK?

4. After finding an appropriate source of water, what two stages are needed to make it potable?

5. What are the 3 methods of sterilising water?

6. Why is water treated with chlorine?

1. How can potable water be made from sea water?

2. Give a disadvantage of this technique.

3. Describe the process of distillation.

4. Describe the process of reverse osmosis.

1. State three pollutants that may be present in waste water.

2. Complete the table to explain the steps in treating waste water.

Step	**Explanation**
Screening	
Sedimentation	
Anaerobic digestion	
Aerobic digestion	

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources – Required Practical – Analysis and purification of water

Analysing the pH of Water Samples

- Test pH of each water sample using pH probe or universal indicator.
- Compare to pH chart if using universal indicator

Analysis the Mass of Dissolved Solids

1) Measure out 50 cm^3 of water sample using measuring cylinder.

2) Take the mass of evaporating basin using top pan balance.

3) Heat the sample in the evaporating basin gently until all liquid evaporates.

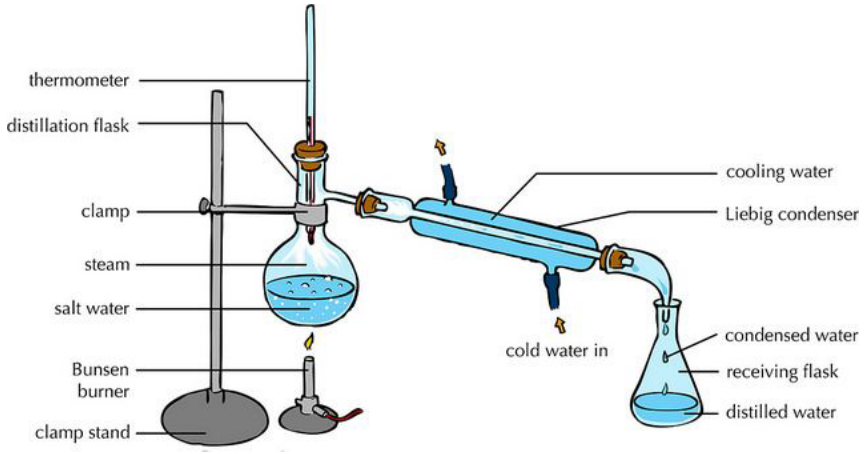
4) Let the evaporating basin cool

5) Re-take the mass of the evaporating basin.

6) Calculate the mass of the solid left behind by doing: final mass – initial mass.

7) Repeat with different water samples (e.g. rainwater, salt water, spring water)

Distillation of water Sample



1) Set up apparatus as shown in picture with the sample of water in the round bottom flask.

2) Heat water sample until it boils gently.

3) Water vapour enters the tube at the side (condenser)

4) There is cold water surrounding the tube

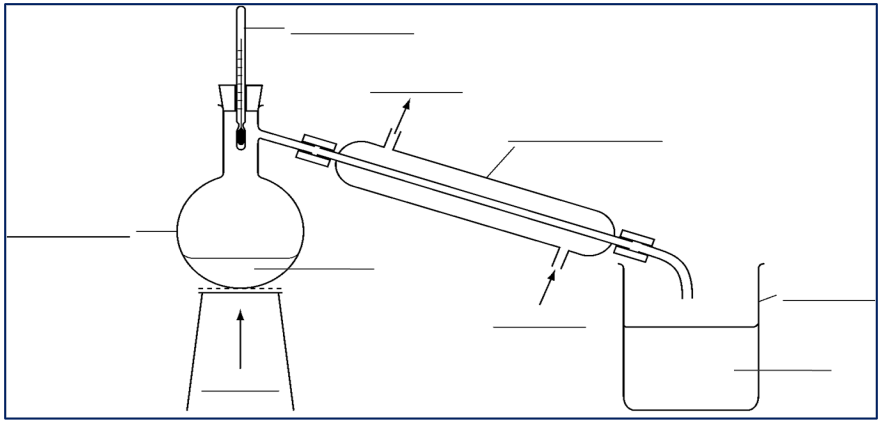
5) The water vapour cools and condenses and collects in the flask.

6) The water collected should be **pure**.

T3 Y11aSc2 Combined Science (for higher) C10 – Using Resources – Required Practical – Analysis and purification of water

1. Write a method of how to investigate the mass of solids in different samples of water.

1. Label the diagram below to show how to purify salt water.



Bunsen, water sample, water, beaker, condenser, water in, water out, thermometer, round bottom flask

2. What is the name of this technique?

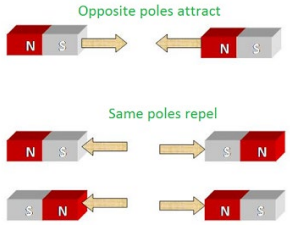
3. What two changes of state happen during this?

4. Describe the water that is collected in the beaker

T3 Y11aSc2 Combined Science (for higher) P7 – Magnetism and Electromagnetism

Magnets

- Have two poles - **north** and **south**.



- **Like poles** will **repel** each other (e.g. N-N or S-S)
- **Opposite poles** will **attract** (e.g. N-S)

- Magnetism is a **non-contact** force – magnets do not need to be touching for effect to be observed.

Magnetic materials: only **iron/steel, cobalt** and **nickel** are magnetic.

Types of magnets

Permanent magnet

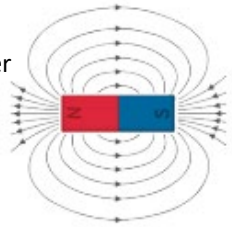
- Produces its own magnetic field.
- Magnetism cannot be turned on or off.

Induced magnet

- Induced magnet = a material which becomes magnetic when placed in a magnetic field.
  - Induced magnets only attract other materials and lose magnetism when removed from the magnetic field.

Magnetic Fields

Magnetic field = the area surrounding a magnet where the force will act on another magnet or magnetic material.



- Magnet field is strongest at the **poles** where the field lines are **closest together**.

- Field lines always go away from **magnetic north** and towards **magnetic south**.

Earth's Magnetic Field

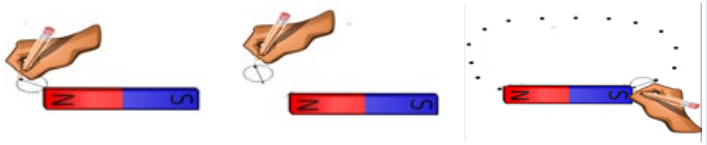
- Earth produces a magnetic field.
- Magnetic compasses use this to help navigation.
- The core of the Earth is made of **iron** (magnetic).

Plotting Magnetic Field Lines

A magnetic compass can be used to plot and draw the magnetic field lines around a magnet.

You need to be able to describe this method!

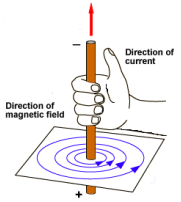
1. Place the bar magnetic in centre of paper.
2. Place a plotting compass at one end of the magnet.
3. Put a pencil dot at the place the compass arrow is pointing to
4. Move the compass to line up the tail of the compass needle to the dot you just made.
5. Repeat until you reach the other end of the magnet



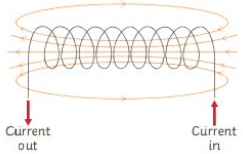
6. Join the dots using a line – this is the magnetic field line. Mark on the direction the arrow pointed – it should run N→S

Electromagnetism

- When a current passes through a wire, a **magnetic field** is produced
- The direction of the field can be found by the right hand thumb rule
- curl the fingers of the right hand around the wire and point the thumb in the direction of the current (+ to -)
- The direction of the circular field is shown by the fingers
- Strength of magnet can be increased by increasing the current
- When the current is switched off, the magnetic field is lost



Coiling the wire will form a **solenoid**.



To increase strength of magnetic field around a solenoid you can:

- Add an **iron core**
- **Increase number of turns** in coil
- **Increase the current** passing through wire

Electromagnets

- Electromagnet is a solenoid with an iron core.
- Are **induced magnets** (can be turned on and off)

Uses = electric motors, loudspeakers, electric bells, scrapyards.

T3 Y11aSc2 Combined Science (for higher) P7 – Magnetism and Electromagnetism

1. Name the two poles on a magnet.
2. What will like poles do?
3. What will opposite poles do?
4. Why is magnetism a 'non-contact' force?
5. Which metals are magnetic?

1. What is a magnetic field?
2. Where is the magnetic field the strongest?
3. Which direction do the field lines go?
4. Draw the magnetic field around a bar magnet.
5. What is the Earth's core made of?
6. What can the Earth's magnetic field be used for?

1. What is produced when a current flows through a wire?
2. How can you increase the strength of a magnetic field of a straight wire?
3. What is produced when you coil the wire?
4. How can you increase the magnetic field around a solenoid? (3 ways)

1. What are the two types of magnets?
2. Name two differences between these two types of magnets.

1. Describe a method to plot the magnetic field of a bar magnet.

5. What is an electromagnet?
6. What is meant by induced magnet?
7. State 2 uses of electromagnets.

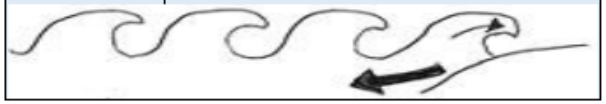
1. The UK's diverse landscapes

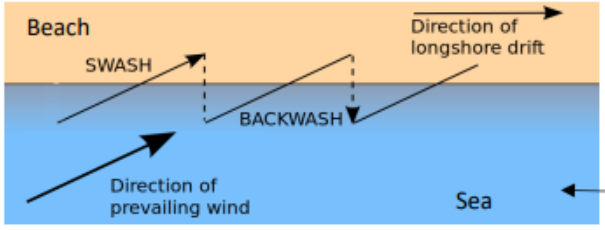
Term	Definition
Relief	Shape of the land.
Upland areas	Land over 200m. Highlands. Steep.
Lowland areas	Land below 100m. Flat or rolling hills

2. Waves

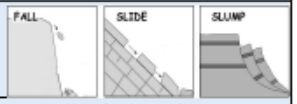
Term	Definition
Swash ↗	Movement of the water UP the beach in the direction of the prevailing wind.
Backwash ↓	Movement of water DOWN the beach at right angles (90°) due to gravity.
Constructive waves	Build up the beach. Strong swash. Weak backwash. Low height, long wave length. Low frequency.

Destructive waves	Erode the coast. Weak swash. Strong backwash. Tall height, short wave length. High frequency.



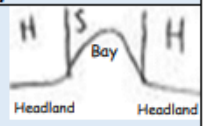


3. Processes

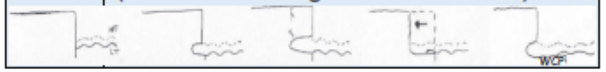
Sub-aerial processes (above the sea)	
Weathering	
Wearing away of rocks in situ. Material not removed.	
Mechanical weathering	The breaking down of rock without changing its composition. Freeze thaw.
Chemical weathering	The breaking down of rock caused by chemicals. (*e.g.* weak acid rain).
Mass movement	
The downhill movement of material under the force of gravity.	
Rockfall	Free fall of rocks under force of gravity.
Sliding	Material collapsing in a straight line.
Slumping	Downward rotation of sections of cliff along a slip plane. Worse when saturated.

Marine processes	
Erosion	
The wearing away and removal of material by a moving force such as a breaking wave.	
Hydraulic power	The sheer force of the water compressing air into cracks causes bits to break off.
Abrasion	Sediment scraping against the cliff (like sandpaper) removing small pieces.
Attrition	The 'smashing' of sediment against each other to become more rounded.
Solution	Chemical erosion caused by the dissolving of rocks by sea water.
Deposition	
Dropping of material	Occurs when there is a loss of energy. e.g.. Sheltered bays, when the wind drops.
Transportation	
Longshore drift	Zig zag movement of sediment along the coastline.

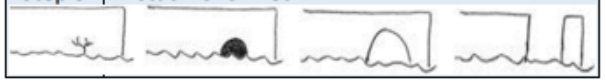
4. Erosional landforms

Headlands and bays	
Step 1	Discordant coastlines have alternating bands of more resistant (chalk) and less resistant rock (clay). 
Step 2	The less resistant rock is **eroded** faster through **abrasion,** creating bays.
Step 3	The more resistant rock **erodes** slower and is left jutting out to sea forming a headland.

Wave cut platforms	
Step 1	Waves **erode** cliff base between high+ low tide
Step 2	**Abrasion** create a wave cut notch which enlarges over time.
Step 3	The rock above the notch is unsupported so will collapse due to **gravity (mass movement).**
Step 4	Cliff **retreats**, leaving a wave cut platform (the un-eroded original cliff left behind).

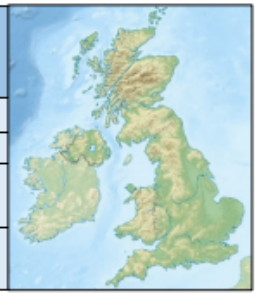


Cave, arch, stack	
Step 1	**Hydraulic power** enlarges cracks in headland
Step 2	Over time they turn into a cave.
Step 3	Back of cave is deepened by **abrasion** until it **erodes** through the headland > arch.
Step 4	**Weathering** and **erosion** wear away at the arch until it eventually collapses (gravity).
Step 5	A stack is formed.



Example of a UK coastline. Dorset coastline.	
Headlands and bays	Swanage Bay, Durlston Head
Wave cut platform	Kimmeridge
Arch	Durdle Door (concordant)
Stack	Old Harry

1. The UK's diverse landscapes



Term	Definition
Relief	
Upland areas	
Lowland areas	

2. Waves

Term	Definition
Swash ↗	
Backwash ↓	
Constructive waves	
Destructive waves	

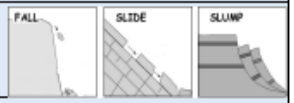
3. Processes

Sub-aerial processes (above the sea)

Weathering

Mechanical weathering	
Chemical weathering	

Mass movement



Rockfall	
Sliding	
Slumping	

Marine processes

Erosion

Hydraulic power	
Abrasion	
Attrition	
Solution	

Deposition

Dropping of material	

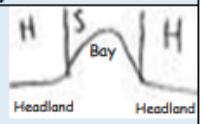
Transportation

Longshore drift	

4. Erosional landforms

Headlands and bays

Step 1



Step 2

Step 3

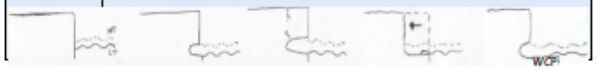
Wave cut platforms

Step 1

Step 2

Step 3

Step 4



Cave, arch, stack

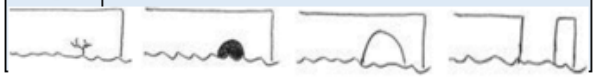
Step 1

Step 2

Step 3

Step 4

Step 5



Example of a UK coastline. Dorset coastline.

GCSE Geography. Paper 1.

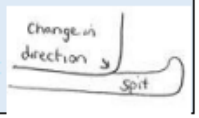
Physical landscapes. 3. Coasts

5. Depositional landforms

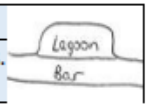
Beaches Swanage	
Step 1	Beaches form when **deposition** occurs.
Step 2	There needs to be a source of sediment nearby like soft cliffs.
Step 3	Constructive waves **deposit** material in sheltered areas like bays.

Sand dunes Studland	
Step 1	Wind blows sand up the beach (**saltation**).
Step 2	Obstacles such as seaweed cause the wind speed to decrease resulting in **deposition**.
Step 3	Over time sand dunes build up and are colonised by marram and lyme grass.
Step 4	This vegetation stabilises the sand dunes.

Spits Sandbanks	
Step 1	Longshore drift transports sediment along the coast in the direction of the prevailing wind (**swash** and **backwash**).
Step 2	Where the coastline changes direction…
Step 3	Sediment is **deposited** in calm weather out to sea.
Step 4	Can form a hooked end and a salt marsh behind the spit where it is sheltered.



Bar	
Step 1	When a spit joins two headlands.
Step 2	A lagoon forms behind the bar.



6. Coastal management

Hard engineering			
Man made structures built to control the sea. Reduces flooding and erosion.			
Strategy	**Explanation**	**Costs**	**Benefits**
Sea walls	A hard wall made out of concrete that reflects waves back out to sea	Expensive (£2000 per/m). Life span 75 years.	Prevents erosion / flooding. Often protects tourist resorts.
Rock armour	Boulders piled up along the coast. These erode rather than the coast.	Boulders can be moved by waves and need replacing.	Gaps allow water through, reducing wave energy. Cheap
Gabions	Wire cages filled with rocks at the base of cliffs. Absorb wave energy.	Ugly to look at. £100 per/m Metal corrodes over time.	Cheap and easy to build. Reduce erosion.
Groynes	Wooden fences at right angles to the coast, preventing sand moving by longshore drift = wider beach.	Starve beaches further along the coast = more erosion there. Life span only 25 years	Stops longshore drift removing beaches. Fairly cheap.

Soft engineering			
Schemes set up using a natural approach to managing the coast.			
Strategy	**Explanation**	**Costs**	**Benefits**
Beach nourishment	Sand and shingle from elsewhere is added to beaches. Wider beaches stop erosion and flooding	Needs redoing every 5 years. Sand has to be brought from elsewhere. Expensive.	Blends with existing beach. Larger beaches = tourists.
Reprofiling	Sediment is redistributed from the lower part to the upper part of the beach. Increases gradient.	Only works if wave energy is low. Needs to be redone lots.	Cheap and simple. Reduces energy of the waves.
Dune regeneration	Creating or restoring sand dunes by nourishment or planting marram grass to stabilise the sand	Protects only a small area. Areas zoned off from public which is unpopular.	Sand dunes create a barrier between the sea and land. Stabilisation is cheap.
Managed retreat Coastal realignment	Remove current defences, allow sea to flood the land behind. Over time land becomes a marshland.	Land is lost = conflict (farmers) Salt water can negatively impact existing ecosystems.	Cheap and easy. Doesn't need maintenance. New habitats created.

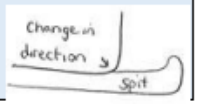
7. An example of a coastal management scheme

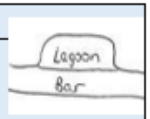
What?	**Reasons for management**	**Management strategy**	**Effects and conflicts**
Bournemouth Beach Management Scheme. Aim: Hold the line and protect tourism.	Coastline would erode at a metre a year. Beach important for tourism (£413million). 3114 homes at risk from collapsing cliffs.	3 phases costing £50 million. HARD: Replaced or added 53 groynes. SOFT: 3 lots of replenishment, every 5 yrs	✓ Beaches = More tourists = 9000 jobs ✗ Barton on Sea at risk from erosion. ✗ Conflict: locals vs construction.

5. Depositional landforms

Beaches Swanage	
Step 1 Step 2 Step 3	

Sand dunes Studland	
Step 1 Step 2 Step 3 Step 4	

Spits Sandbanks	
Step 1 Step 2 Step 3 Step 4	

Bar	
Step 1 Step 2	

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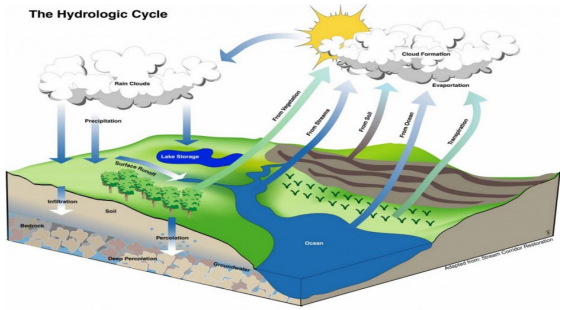
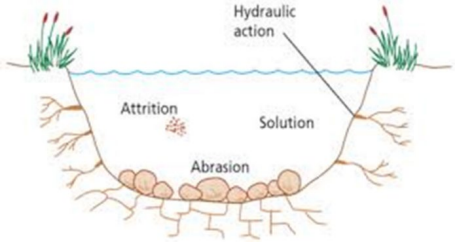
Geography Knowledge Organiser: Year 9 Term 5 Rivers



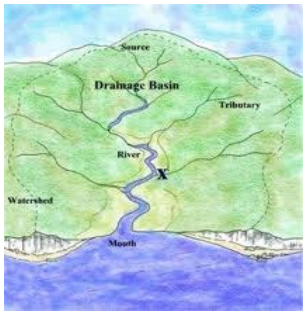
What are we learning this term

A. The Hydrological cycle
B. Drainage basins
C. Factors influencing the hydrological cycle
D. Key terms



Erosion in a river has a number of different forms.

A.	The hydrological cycle
The hydrological cycle is a closed system. This means that water never leaves, or enters the cycle of water from sea, land and atmosphere. The cycle is important because it shows us how water can enter the drainage basin, and how water can be responsible for increasing or decreasing our risk of flooding. Key words include:	
Evaporation	the process of water turning from a liquid in to water vapour as it is warmed.
Transpiration	Transpiration – the loss of water from trees and plants
Condensation	water vapour returning to a liquid once cooled.
Interception	water being trapped by tree leaves and plant leaves
Surface run off	water travelling **over** the land
Infiltration	water soaking into the soil
Throughflow	water flowing downhill in the soil
Percolation	water passing vertically through soil and rock
Groundwater flow	water flowing vertically through rock.
Channel flow	water flowing in a river channel
Channel storage	water being stored in the river

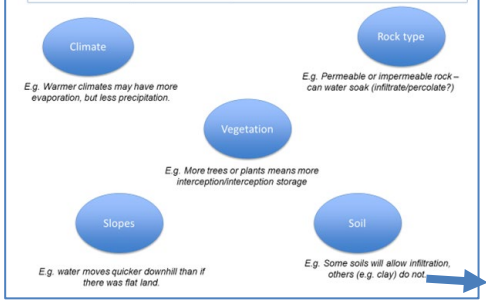


Some factors will influence the way that water travels to the river – see below.

The drainage basin is the area of land drained by a river and it's tributaries. Its boundary is the *watershed.* The start of a river is called the *source*, and the end of the river as it enters the sea is the *mouth*. The main river channel may be joined by smaller rivers called *tributaries,* and this meeting point is called a *confluence.*

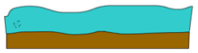
D	Key terms
Attrition	is the 'smashing' of sediment against each other to become more rounded.
Hydraulic action	is the sheer force of the water breaking down the river banks and bed.
Corrosion (solution)	is the dissolving of material.
Abrasion (corasion)	is the action of sediment scraping against the bed and bank of the river (like sandpaper

Factors influencing the hydrological cycle- what speeds it up, or slows it down?

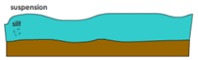


Transportation.

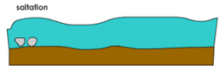
- Transportation happens in one of four ways:
- As solution: dissolved minerals carried in the water.



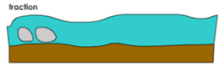
- Suspension: Small particles of rock and soil are carried along – they make the water look cloudy or muddy.



- As **saltation**: sand grains and small stones just bounce along.

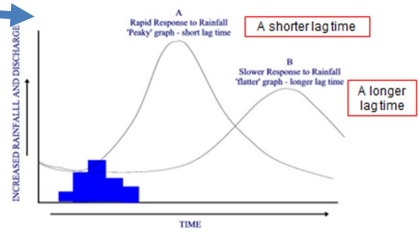


- As **traction**: Larger stones and rocks get rolled along.

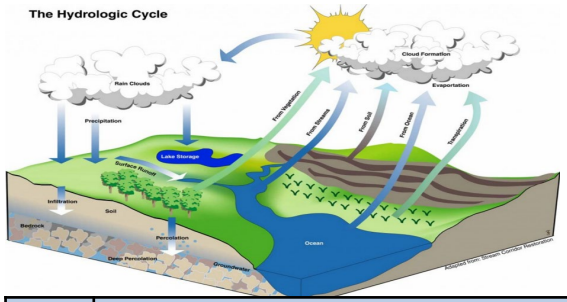


Hydrographs are a method to show us the relationship between rainfall and discharge (the amount of water in the river at a given time).
Hydrographs can help us to predict the risk of flooding, but also can help us to understand how water has made it's way the river…

The **lag time** of a hydrograph is the time between the peak rainfall and the peak discharge. If this is long (e.g. b) then it means water will have infiltrated rather than moved through surface run off, as surface run off would cause water to enter the river quickly, and so our hydrograph would have a shorter lag time (e.g. a).



Geography Knowledge Organiser: Year 9 Term 5 Rivers



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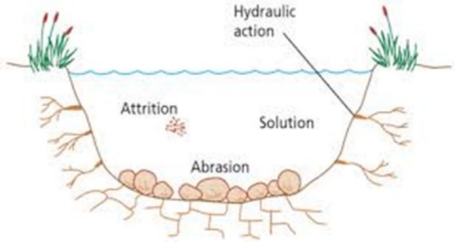

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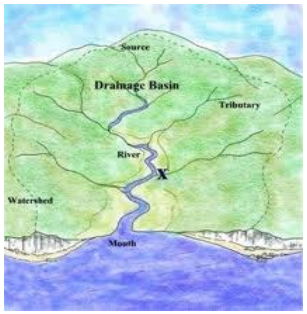

Some factors will influence the way that water travels to the river – see below.

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Corrosion (solution)	
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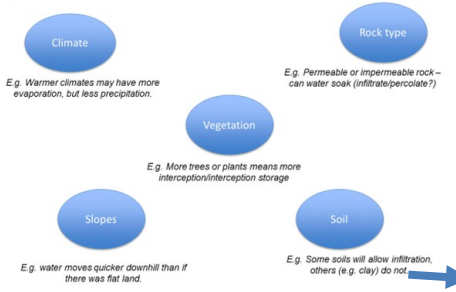
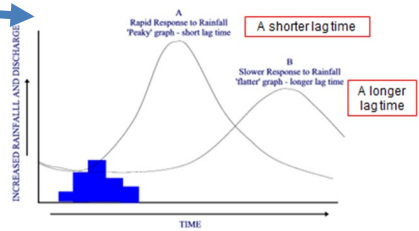
Factors influencing the hydrological cycle- what speeds it up, or slows it down?

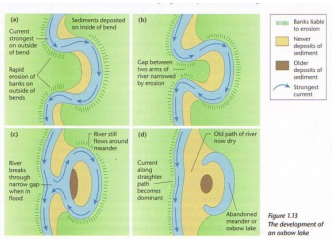




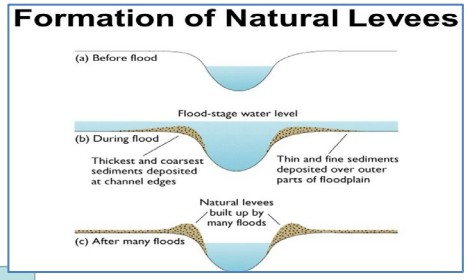
Geography Knowledge Organiser: Year 9 Term 5 Rivers

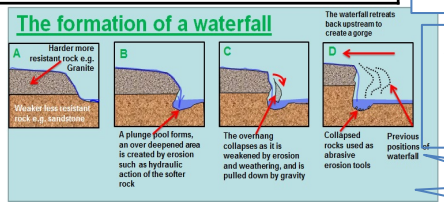
E	Reducing flooding
Rivers flooding can be caused by a number of factors. These could be human factors:	
Farming	ploughing can cause water to collect in the troughs and run directly in to the river.
Urbanisation	building with tarmac and concrete does not allow infiltration so water moves to the river through surface run off, or might sit on the land.
Deforestation	cutting down trees will reduce interception storage and increase surface run off.
Or physical factors:	Or physical factors:
Weather and climate:	hotter weather increases evaporation which will then decrease the amount of discharge. Colder weather will cause more surface run off as frozen ground cannot infiltrate water.
High amounts of rainfall	saturated ground will not infiltrate further rainfall, which increases surface run off, and therefore the discharge in the river.
Steep land	steep land increases surface run off and therefore the discharge in the river

The image above tracks the journey of a river from source to mouth. Note that the river starts on high land, and meets the sea on flat land. The features of a river will change from source to mouth. This is due to erosion and transportation of material. Typically larger material is found in the upper course of a river, and the material reduces in size as it makes it way to the mouth. Erosion will change from vertical (downwards) to horizontal erosion.



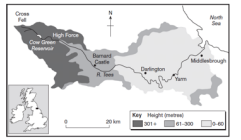
A meander is a bend in a river. Erosion happens on the outside of the bend as the velocity is faster. Deposition happens on the inside of the bend as velocity is slowest. This meander may over time become an oxbow lake as erosion on the outside of the bend exaggerates the bend, and when the river floods, water might take the quickest route – therefore cutting off the bend!





A waterfall will form when bands of hard and soft rock lie on top of each other. Over time the hard (more resistant) rock will be eroded, and therefore the soft rock will be eroded vertically. This creates a plunge pool – and overtime the waterfall will retreat backwards creating a gorge.

The river is 85 miles long, and drains an area of 710 square miles. Its source is in the Pennine hills, and flows in to the North Sea at Middlesbrough.



Upper course: The upper course of the river has impressive waterfalls. The river drops 20m in a single sheet of water – High Force Waterfall (tallest in England). The waterfall has retreated back overtime to form a gorge. There are high v-shaped valleys, and interlocking spurs in the upper course of the river.

Middle/lower course: There are good examples of meanders, levees and floodplains along the River Tees. The natural levees have built up over time as the river floods and sediment is deposited on the banks of the river. There are large industries in the lower course of the river, making the most of the flat land and river's flow in to the North Sea. This area of the river needs high levels of management. In Yarn there are extensive flood protection methods.

The river has been straightened and widened over time to allow navigation for industry and trade.

Banbury Floods:

River flooding might bring a lot of effects to an area. They are worse in LICs as the countries are unable to prepare, or protect.
These impacts can be social, economic or environmental.

Social: loss of homes, death, loss of possessions etc.

Economic: Cost of repairs, loss of income from flooded farmland, loss of business, loss of jobs etc.

Environmental: Damaged habitats, destroyed land, contaminated water sources etc.

Banbury is located in the Cotswolds, north of Oxford.

Impacts of flooding:
In 1998 flooding led to the closure of the railway station, local roads and caused £12.5m damage. More than 150 homes and businesses were affected. In 2007 these impacts were repeated.

What has been done to reduce flooding?
- A361 raised, and drainage below the road improved.
- Earth embankments built.
- Floodwalls built.
- Pumping station to transfer excess water.
- Creation of new Biodiversity Action Plan to allow nature to 'soak' up excess water.

What were the costs/benefits?
Socially: quality of life has improved, reduced levels of anxiety of flooding, the A361 will no longer need to be closed.
Economically: Cost £18.5m, but benefits of protecting are over £100m!
Environmentally: Small reservoir created from earth taken for embankments, new Biodiversity Action Plan has created new habitats, and floodplain protected for flooding.

Geography Knowledge Organiser: Year 9 Term 5 Rivers - quizzable

E	Reducing flooding

Rivers flooding can be caused by a number of factors.
These could be human factors:

Farming	
Urbanisation	
Deforestation	
Or physical factors:	
Weather and climate:	
High amounts of rainfall	
Steep land	

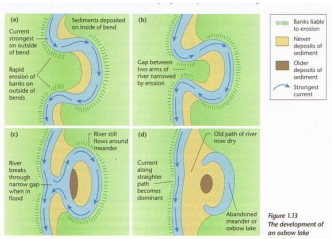
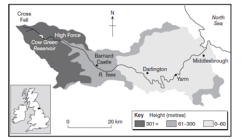


Figure 1.13 *The development of an oxbow lake*

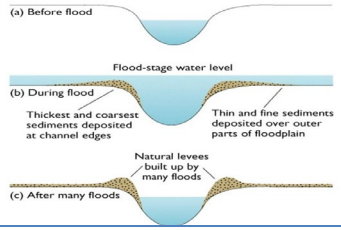
A meander is _____. Erosion happens on _____as the velocity _____. _____ happens on the inside of the bend as velocity _____. This meander may over time become _____as erosion on the _____ of the bend exaggerates the bend, and when the river floods, water might take the quickest route – _____!

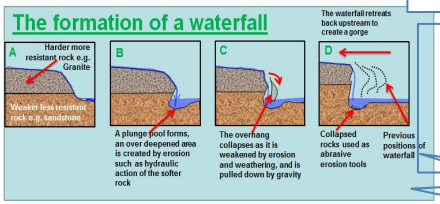
Upper course:



Middle/lower course:

Formation of Natural Levees





Banbury Floods:

What has been done to reduce flooding?

- .

Banbury is located in the Cotswolds, north of Oxford.

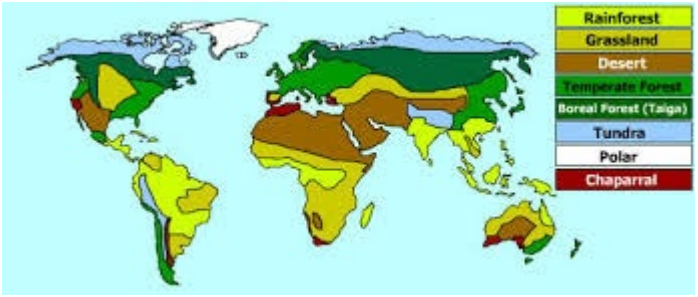
Impacts of flooding:

What were the costs/benefits?

The Living World:

Useful links:

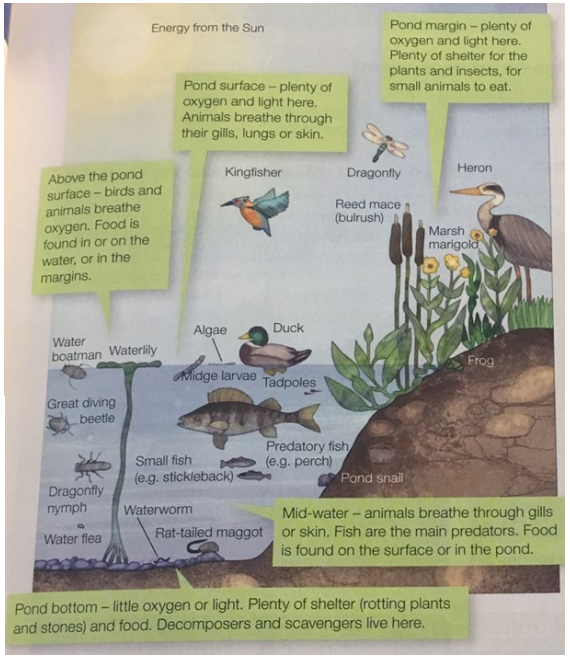
- http://www.worldbiomes.com/biomes_map.htm http://www.ducksters.com/science/ecosystems/world_biomes.php
- https://www.bbc.co.uk/education/topics/z2tqwxs
- http://www.softschools.com/facts/biomes/desert_biome_facts/167/
- http://www.softschools.com/facts/biomes/tropical_rainforest_biome_facts/160/

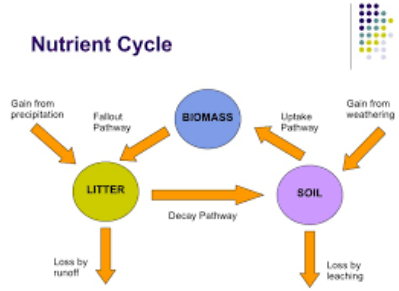


A **biome** is a large scale ecosystem. They are closely linked to climate belts globally.
E.g. **Deserts** are found at 22.5°N/S where pressure is high so air sinks leading to a lack of precipitation. **Rainforests** are found along the equator, in areas of low pressure where the air rises, leading to condensation and precipitation.

Ecosystems can also be small scale. By definition an ecosystem is an environment where there is an interaction/relationship between the **abiotic** (non living, e.g. soils/rain/rocks), and the **biotic** (living, e.g. plants/animals) components.

- A freshwater pond is a good example of a small scale ecosystem. Check out the interactions….



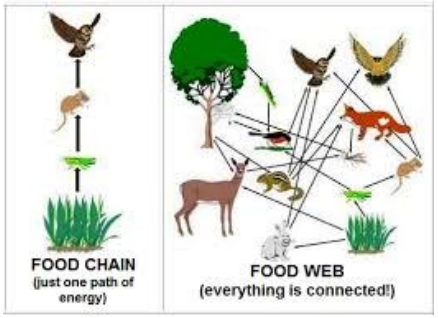


In an ecosystem there are three elements to it's existence.

- **A decomposer** (breaks down the waste e.g. Fungi)
- **A producer** (produces their own food e.g. grass)
- **A consumer** (eats the producer. Primary consumers may include snails/grasshoppers. Secondary consumers then refer to an animal that eats the primary consumer).

These three elements interact to recycle nutrients. Each one depends on one another.
Humans can upset the balance of ecosystems by introducing new consumers/producers; or removing consumers/producers. E.g. the introduction of the Grey Wolf in Yellowstone National Park meant that there was more competition for consumers, leading to an imbalance further down the food chain.
See an example of a food chain & food web opposite.

The nutrient cycle in an ecosystem is also incredibly important, and emphasises the links between the **abiotic** and **biotic** elements of the ecosystem.

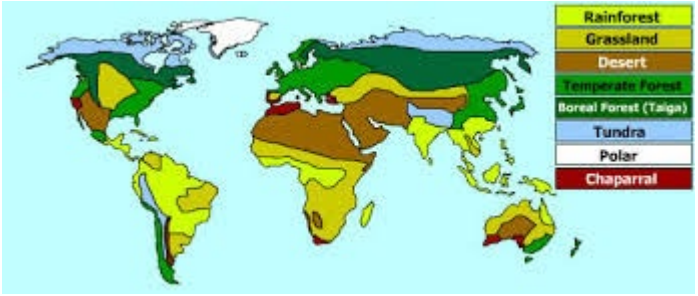


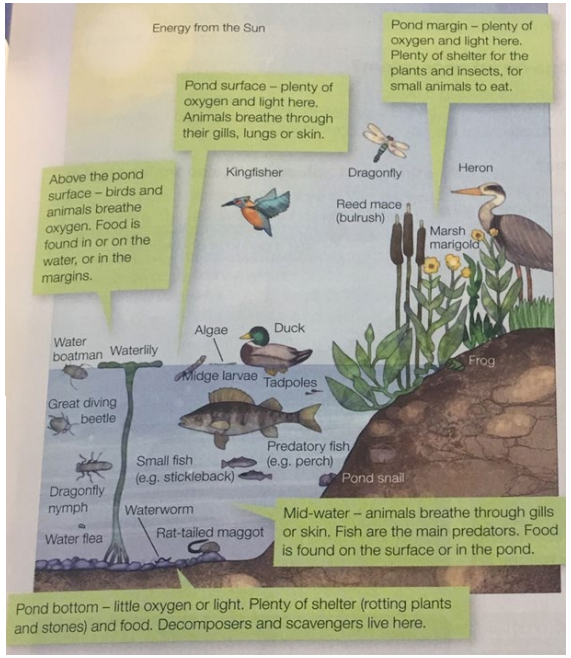
Carnivores (meat eaters), **herbivores** (plant eaters) and **omnivores** (meat & plant eaters) are all important too.

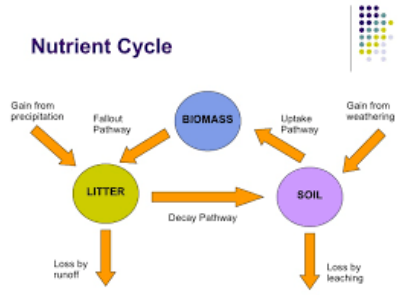
The Living World:

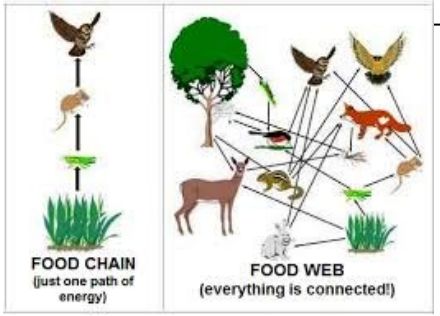
Useful links:

- http://www.worldbiomes.com/biomes_map.htm http://www.ducksters.com/science/ecosystems/world_biomes.php
- https://www.bbc.co.uk/education/topics/z2tqwxs
- http://www.softschools.com/facts/biomes/desert_biome_facts/167/
- http://www.softschools.com/facts/biomes/tropical_rainforest_biome_facts/160/





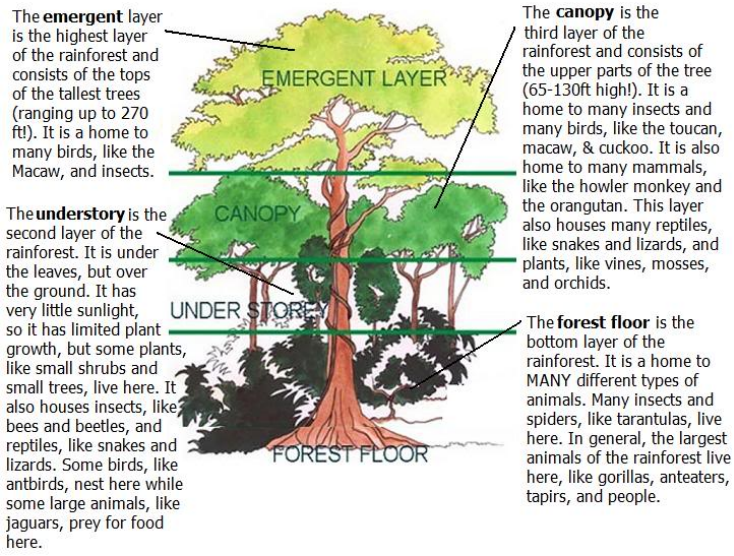




Biome case study 1: The Tropical Rainforest: The Amazon Rainforest:

Emergent trees have buttress roots to anchor them to the ground. Tress in the canopy/emergent layer will have drip tips to direct water to the floor.

Rainforests hold over ½ of the world's species of animals and plants. They are complex ecosystems with high levels of interdependence. The climate of the rainforest (humid, wet, high temperatures) means that there is huge competition between species, and therefore there is a high level of adaptation from plants and animals.



Causes of deforestation:

Logging *– this accounts for 3%. Timber companies are interested in trees such as mahogany and teak and sell them to other countries to make furniture (selective logging). Smaller trees are often used as wood for fuel or made into charcoal.*

Mineral extraction – *Some of the minerals that richer countries need are found beneath rainforest. In the Amazon, mining is mainly about gold. In 1999, there were 10, 0000 hectares of land being used for gold mining. Today, the area is over 50,000 hectares.*

Energy development *– The vast Amazon River has encouraged dams to be built to generate hydroelectric power. This involves flooding large areas of rainforest.*

Commercial Farming: *Cattle. This accounts for 80% of tropical rainforest destruction in Brazil. Crops. The forest is being cleared to make way for vast plantations, where crops such as bananas, palm oil, pineapple, sugar cane, tea and coffee are grown. The cultivation of soy bean has also caused a lot of clearance in the Amazon. The amount of rainforest cleared for this crop doubled between 1990 and 2010.*

Road building: *Roads are needed to bring in equipment and transport products to markets, but road building means cutting great swathes of rainforest. The Trans-Amazonian highway began construction in 1972 and is 4000km long.*

Impacts of deforestation:

Environmental:

- The Amazon stores around 100 billion tonnes of carbon, releasing this will contribute to global warming.
- Soil erosion is caused by deforestation which means that the soil loses its fertility and it takes a long time for things to grow.
- Loss of biodiversity – estimations that the Amazon could lose between 30-40% by 2030.

Economic:

- Wealth brought to countries that were very poor.
- Farming makes a lot of money for countries in the rainforest (E.g. Brazil made $6.9b in 2008).
- Mining creates jobs for people; and logging contributes to Brazil's economy.
- Decline of native (indigenous) tribes.

Sustainable management of deforestation:

Selective logging: Only some trees are cut down, reducing the pressure.

Replanting (afforestation) – replanting trees that are cut down.

Conservation: National parks/nature reserves set up to restrict activity.

International policies: Putting laws into place internationally to encourage conservation. This could relate to countries only using sustainably sourced materials.

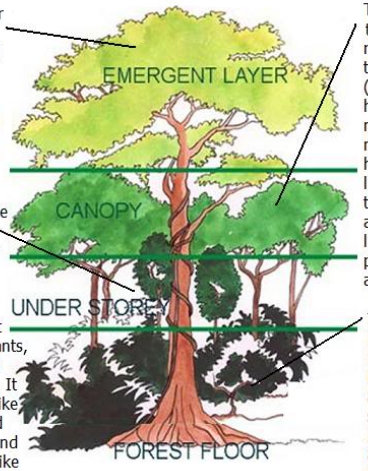
Education: Educating locally and globally to encourage sustainable use of the rainforest.

Biome case study 1: The Tropical Rainforest: The Amazon Rainforest:

Emergent trees have buttress roots to anchor them to the ground. Tress in the canopy/emergent layer will have drip tips to direct water to the floor.

The **emergent** layer is the highest layer of the rainforest and consists of the tops of the tallest trees (ranging up to 270 ft!). It is a home to many birds, like the Macaw, and insects.

The **understory** is the second layer of the rainforest. It is under the leaves, but over the ground. It has very little sunlight, so it has limited plant growth, but some plants, like small shrubs and small trees, live here. It also houses insects, like bees and beetles, and reptiles, like snakes and lizards. Some birds, like antbirds, nest here while some large animals, like jaguars, prey for food here.



The **canopy** is the third layer of the rainforest and consists of the upper parts of the tree (65-130ft high!). It is a home to many insects and many birds, like the toucan, macaw, & cuckoo. It is also home to many mammals, like the howler monkey and the orangutan. This layer also houses many reptiles, like snakes and lizards, and plants, like vines, mosses, and orchids.

The **forest floor** is the bottom layer of the rainforest. It is a home to MANY different types of animals. Many insects and spiders, like tarantulas, live here. In general, the largest animals of the rainforest live here, like gorillas, anteaters, tapirs, and people.

Biome case study 2: The Desert: The Thar Desert.

The desert is an ecosystem of harsh and extreme climatic conditions. During the day temperatures can hover near to 40°C, and during the night in some areas they can drop below freezing (due to lack of cloud cover because of the area being in high pressure zone). Deserts make living conditions difficult for both animals and plants, and adaptations are essential for these to survive.

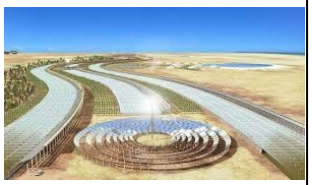
Very low biodiversity in the desert, as seen by the image above.

Development opportunities:

1. **Mineral resources** –Gypsum, Kaolin, Limestone
2. **Solar energy** – 12 or more hours of bright sunshine and cloudless skies everyday are perfect conditions. Badla Solar Farm produces enough energy to power factories and develop the Thar desert are
3. **Wind energy-** Jaisalmer Wind Farm
4. **Coal-** large coal ,mine owned by the Chinese however enough coal to provide energy to India for 200 years and allow development of factories
5. **Tourism** – camel trekking in the desert, Jaisalmer Fort to visit as a cultural experience
6. **Commercial Farming** – water is essential so farming only happens where there is enough water. Indira Ghandi Canal allows water to be used for commercial farming. Crops include, sesame, mustard and cotton.

Challenges to development:

- Extreme temperatures – daily temperatures can be as high as 40°C due to lack of cloud cover, and freezing at night.
- Inaccessibility – due to the sheer size of the desert it is often expensive and long distances for people to access the whole desert. Use of transport is limited due to poor quality roads and traditional use of camels
- Water supply – low annual rainfall (less than 70mm in some places) – unpredictable rainfall, and huge demand on rainfall/water means it is difficult to provide enough water for all.



Grand plans by the EU to use land in the Sahara Desert for a vast solar farm.

Desertification is a huge threat to the desert ecosystem. As pressure is placed on land by human and physical factors such as:

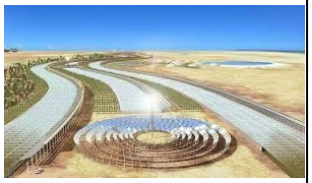
- Removal of vegetation cover.
- Overgrazing.
- Uncontrolled fuel wood collection.
- Unsustainable farming practice and loss in fertility of soil.
- Excessive tree felling.

It can be reduced by:

- Appropriate technology (e.g. Stone Lines used to reduce soil erosion) & planting pits
- Tree planting (to hold soil in place)
- Water & soil management (E.g. restricting overuse of water for irrigating crops) Great Green Wall

Biome case study 2: The Desert: The Thar Desert.

Very low biodiversity in the desert, as seen by the image above.



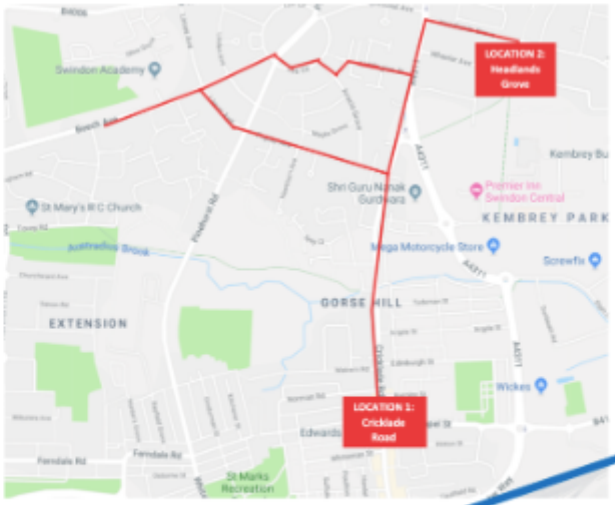
. Grand plans by the EU to use land in the Sahara Desert for a vast solar farm.

Title of Human investigation: Do inequalities in housing exist in Swindon?

Why is this suitable as a title? Swindon is a town which has a range of different housing estates. Housing quality and type varies depending on age within the town.

Why is this location suitable? 1) We can walk to locations easily from school.2) It is a safe location. 3) Easy access around the town 4) No permission needed

Location 1:
Inner city area, close to CBD
High density, low quality housing



Location 2:
Previously suburban area (Now central to Swindon due to urban sprawl)
Low density, higher quality housing

The risk rating (high, medium or low) indicates the level of response required to be taken when designing the action plan.

Risk assessment ranking of risk:

Rating Bands (a x b)		
LOW RISK (1 – 8)	MEDIUM RISK (9 - 12)	HIGH RISK (15 - 25)
Continue, but review periodically to ensure controls remain effective	Continue, but implement additional reasonably practicable controls where possible and monitor regularly	-STOP THE ACTIVITY- Identify new controls. Activity must not proceed until risks are reduced to a low or medium level

		Risk				
		1	2	3	4	5
Severity	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

Risk	Why is it a risk?	Solution	Rank score
Tripping on pavement	Urban area with uneven surfaces, so minor injuries could occur from tripping.	Wore sensible shoes / flat trainers.	Severity 2 Likelihood 3 Score 6

		A first aid kit and first aider attended the visit	LOW RISK
Traffic	Crossing roads and conducting the investigation in an urban area leaves participants open to risk from traffic. Especially when crossing the road and carrying out EQS.	Observe the green cross code, suing pedestrian crossings and looking both ways before crossing. Walk in single file on narrow pavements to avoid students walking in the road.	Severity – 1 Likelihood 5 Score 5 LOW RISK

Title of investigation: Do inequalities in housing exist in Swindon?

Hypothesis Inequalities in housing exist in Swindon. **Reasons for the hypothesis?** It gives a focus for my study. It is measurable. It allows me to find out if there are differences in housing quality across my home town. Only simple equipment needed.

Background / Location

Swindon is a town in the south west of England. It has a population of 182,000.

Swindon developed as a railway town in the 1840's. During the 1950's Swindon became an 'Expanded Town,' which led to a big increase in population. Today Swindon continues to grow due to Honda and Mini factories being in the area, and due to it being on the commuter belt to London.

Theory/ Secondary –Burgess Model

- Shows that towns and cities have different zones
- Housing type and quality varies in each zone.
- More modern, nicer housing is found on the outskirts of cities/ towns

Why is secondary information useful?

- I can test this theory by creating a hypothesis.
- I can link my results back to this model and it will help to explain my findings.
- It is a model based on extensive research.

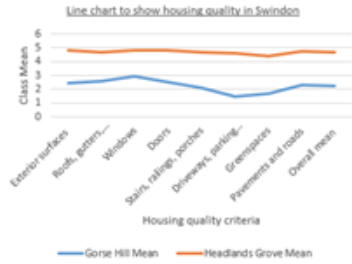
Limitations of this data.

- It is a general model it does not take into account other location issues e.g. the war.
- This may be out of date.

Methodology:

Method	How it was done?	Why it was done?	Sampling method and reason	Links to hypothesis
Housing quality survey	• Filled in bipolar building quality survey in 2 contrasting residential areas. • A scale of 1-5 used, this meant that we couldn't be impartial. • I will test 2 areas– one from the inner city and one from the suburbs.	• To show if housing differences were occurring across Swindon. • Using a scale of 1-5 for each of the categories would allow me to work out the mean housing quality score in the 2 areas and therefore it would be easy to compare. • Testing 2 areas means I can link findings back to the Burgess Model.	• Random sampling – we stopped at 5 points did the survey 5 times in each of the residential areas. • This means that we are able to work out a mean score therefore giving reliable and accurate results.	Would clearly show if inequalities in housing exist across Swindon.
Annotated photographs	Use phones to take pictures of housing at each site.	Show the building quality and aesthetics of each site.	Random sampling – area chosen to photograph to show housing quality differences.	As above

Presentation method 1 – Line graph



Interpretation:

- The building quality is better in Headlands Grove in comparison to Gorse Hill.
- The inner city area of **Gorse Hill scored lower in all** 8 categories, with the largest difference being for the quality of driveways and paths which was a score of -3.08 lower than Headlands Grove.
- **Gorse Hill** overall housing quality mean score is **2.23** lower than **Headlands Grove**, this is significant.

Explanation:

- Headlands Grove is in a suburban area. Housing is more modern. Furthermore, the people who live here are more likely to be home owners, so maintain their properties more.
- Proves hypothesis is correct.
- No anomalies exist.

Links to other data:

- This links with secondary data as it shows that housing quality improves as we move out towards the suburbs in Swindon.
- Photographs support the quantitative data that the differences shown in the graph above exist.

Evaluation of presentation method:

Advantages –

- Easy to see patterns differences in buildings quality, due to height of the line.
- ICT quick and accurate to use.

Disadvantages –

- Not easy to work out differences as the scores are in decimal points.
- Difficult to read and interpret scores accurately.

Improvements –

- Located bars using GIS, easier to interpret and consider the locational reasons for differences.

Presentation method 2

Location 1: Gorse Hill

Location 2: Headlands Grove

Interpretation:

- The housing in Gorse Hill is clearly older and suffering from signs of dereliction. Houses in Headlands Grove, are detached / semi-detached and more modern.

Explanation:

- The houses at Gorse Hill were built in the 19th century for railway workers. Today many people rent in this area, the houses are in decline due to age and people not being able to afford/ or caring about the upkeep.
- House in Headlands Grove have been built around 1930. They are often owner occupied and so maintenance and upkeep are clearly taking place.

Links to other data: This supports the building quality survey and the Burgess model. As both show housing quality would improve as we move out from the centre.

Evaluation of the presentation method:

Good:

- First-hand account of what we saw on the day.
- Can annotate back in class and **link to quantitative data.**
- It is qualitative data which supports the quantitative results which I have found.

Problems:

- May contain **errors**, as it is only focused on one part of the street, small things like damaged gutters maybe missed (no rain).
- **Biased** as the pictures were taken after the BQS was done = trying to prove hypothesis.
- Cannot see the exact location on the street.

Solution

- **Locate on a GIS** map next to quantitative data.

Conclusion:

- Inequalities in housing do exist in Swindon. Both pieces of information clearly show this. As we move outwards the quality of buildings improve. This is tightly linked to the Burgess model.
- The overall mean BQS for Gorse Hill is 2.26, whereas for Headlands Grove it is 4.68, this is a total difference of 2.43. This is a significant difference and no anomalies for any building feature were present.
- I can now conclude that my hypothesis is correct 'Inequalities in housing do exist in Swindon.'

Reliability of my conclusion:

- Two pieces of evidence clearly support my conclusion and this links to secondary information studied at the start.
- BQS score is reliable as completed four times and the mean worked out, therefore reducing anomalies.
- A significant difference between the mean scores of the 2 residential areas.

Unreliability of my data of my conclusion:

- Some of the building quality features are difficult to measure. For example, rain may have given better evidence in regards to things such as gutters. This means that information may have been missed, or what I have gathered is misleading in regards to the conclusion.
- Certain streets were chosen in each area, however the streets picked may not effectively show represent the variety of housing in that area e.g. In Gorse Hill we may have picked the worst street to test, the next street might have been much nicer – however time stopped us from doing this = inaccurate conclusion.
- Random sampling was used, this meant that we stopped to complete our BQS at the times we thought were best to support our hypothesis e.g. when we saw a bad house in Gorse Hill we tended to stop as we knew this would support our hypothesis – this could have exaggerated our results, which will have led to misleading conclusions.

Evaluation

Method	Problem	Impact on results and conclusion	Solution	Impact on results and conclusion
Building quality survey	• Random sampling used within the two sites to complete the BQS. • Biased when stopping to complete the BQS as we wanted to support our hypothesis. • Only compared 2 housing areas in the UK.	• Contains bias as we stopped where we wanted to, so the differences in housing quality maybe inaccurate and unreliable as they could be over exaggerated. • Only compared 2 areas. These areas were picked as we knew that housing quality would be different, this again could have exaggerated our results and led to unreliable conclusions.	• Measure a transect line across the two sites (not streets) which we will visit. Then use SYSTEMATIC sampling at four equal intervals along this transect. • I could add 2 more unknown housing areas in Swindon to the sites studied.	• This will remove bias as I will have to record the BQS based on fairly picked locations, covering a range of streets, meaning that my results will be more accurate and the conclusions will be valid as the mean scores will not have been over exaggerated. • Adding 2 more areas will show if the differences in housing quality in Swindon are as great as stated, or if they gradually change, from different areas = accurate representation in regards to housing quality differences in Swindon.
Photographs	• Random sampling taken in areas to show the building quality and sometimes the pictures were staged to support the hypothesis e.g. the most negative part of the street was pictured in Gorse Hill, even though some areas looked well kept.	• Bias results. Not accurate findings – does not take into account the full aspect of each sites building quality = over exaggerated conclusion.	• Take pictures with the systematic points mentioned above.	• Removes bias showing the variation in building quality in each location = valid results and accurate conclusions.

Name:

Apendix- Overall results table

	Gorse Hill Mean	Headlands Grove Mean	Difference
Exterior surfaces	2.44	4.78	**2.34**
Roofs, gutters, chimneys	2.55	4.65	**2.1**
Windows	2.94	4.84	**1.9**
Doors	2.54	4.8	**2.26**
Stairs, railings, porches	2.1	4.64	**2.54**
Driveways, parking areas	1.5	4.58	**3.08**
Greenspaces	1.66	4.4	**2.74**
Pavements and roads	2.31	4.77	**2.46**
Overall mean	**2.26**	**4.68**	**2.43**

Significance difference in overall mean - 2.42.
Overall mean for housing quality is higher in Headlands Grove

Quality of housing significantly better in Headlands Grove
Biggest difference between two areas is driveways, parking areas and greenspaces

Links to theory
Less space in Gorse Hill as inner-city area for parking and greenspaces
Headlands Grove had much bigger houses with gardens, driveways as more space in suburbs
Terraced hoursing in Gorse Hill vs Semi-detached in Headlands Grove
High density, low quality housing in Gorse Hill
Lower density, better quality housing in Headlands Grove

2. The Conquistadors 1513-1528

Balboa the Conquistador

1509
Balboa rescues Spanish expedition in trouble on mainland America.
1510
Founds first permanent settlement on mainland America, Santa Maria de la Antigua del Darien.
1511
Confirmed, by King Ferdinand, as captain general and governor of Darien.
1513
Expedition across Isthmus of Panama – finds the Pacific and claims it and surrounding lands for Spain.
1514
Plans an expedition to sail south on the Pacific. Replaced as governor by Pedrarias.
Arrested for treason, tried and beheaded.

Pedrarias and Espinosa: the significance of Panama

Pedrarias and Espinosa explored the south coast separately, but both ended up on the same point on the Pacific coast – this became Panama.
Panama significant because:
-Situated on Pacific coast – closest in distance to Nombre de Dios on the Caribbean Sea.
-a route between Panama and Nombre de Dios was the quickest way of moving goods, people and messages between the Pacific and the Caribbean sea.
-land surrounding Panama was fertile and had sea rich in fish.
-Panama was a port, well situated for Spanish treasure ships to off-load.

Velázquez conquers Cuba

1511 – Hatuey a native chief living in Haiti, flees to Cuba with 400 natives to escape Spanish cruelty. Velázquez and 300 conquistadors pursue them.

1512 – After strong native resistance, Hatuey is captured and burned alive.

1513 – Massacre at Canao – thousands of natives killed.

1514 – Conquest of Cuba complete. City of Santiago de Cuba founded and becomes capital of Cuba.

1515 – City of Havana founded.

Cortes' expedition to Mexico 1519

1519 February – Cortes sails from Cuba, despite Velázquez attempts to stop him.

March – Lands on Yucatan Peninsula and claims land for Spain.

April – Fights Tabascan natives and takes control of the city of Pontonchon. Makes peace with Tabascans. Given Malinche.

July – Re-establishes a Spanish settlement at Vera Cruz. Cortes also sinks his ships.

August – Cortes is met by cheering natives at Cempoala and allies with them.

September – Fights Tlaxcalans – enemies of the Aztecs – makes peace and allies with them.

Aztec religion

Quetzalcoatl

What beliefs did the Aztecs have towards the Spanish?

Some Aztecs wanted to treat Cortes and the Conquistadors as returning gods; others as dangerous invaders.
Aztecs worshipped many gods. They were usually connected to nature. Human sacrifices were common among the Aztecs.
The god Quetzalcoatl was the god of life. Aztecs believed he had vanished into the sea and would one day return.
Many Aztecs believed that Cortes and the conquistadors were returning gods.
Cortes and the conquistadors appeared from the same sea, and in the same spot, from which Aztecs believed Quetzalcoatl disappeared.

Magellan

Magellan and his ships managed to circumnavigate the world between 1519 and 1522 and claim the Phillipines for Spain.
This was important because:

- It meant that Spain could claim the Spice Islands – as they had found a western route to it.
- It brought prestige to Spain – Magellan and his ships were the first to complete a voyage of global circumnavigation.

Cortes removed as governor

Cortes had many enemies which were causing him problems back in Spain. In 1528 he was removed as governor because:

- Velázquez became a determined enemy.
- Rumours of greed reached the Spanish court.
- The king wanted to control Cortes.

In 1528 Cortes returns to Spain. Charles I was impressed with what Cortes had found but did not trust him. Cortes was no longer governor but he kept his land. An enemy of Cortes was installed so they could keep an eye on both, and to prevent one gaining too much power.

Date	Event
1519	
Feb	Cortes sails from Cuba
March	Lands on Yucatan peninsula and claims land for Spain
April	Fights Tabascan natives and takes control of Pontonchon. Makes peace with Tabascans. Given Mayan woman, Malinche.
July	Re-establishes Spanish settlement at Vera Cruz. Sinks his ships.
August	Met by cheering natives at Cempoala and allies with them.
Sept	Fights Tlaxcalans – enemies of the Aztecs – makes peace and allies with them.
October	Cortes and his forces massacre 3000 natives in the town of Cholula.
8th Nov	Cortes and his forces enter Tenochtitlan – welcomed by Montezuma.
14th Nov	Montezuma taken prisoner by Cortes – becomes a puppet emperor.
1520	
April	Spanish troops arrive at Vera Cruz under instructions from Velázquez, intending to arrest Cortes.
May	Cortes leaves Tenochtitlan to oppose Velázquez's troops. Cortes deputy, Alvarado, massacres thousands of Aztec nobles.
24-29 June	Spaniards trapped in Tenochtitlan as Aztecs rise against them.
29th June	Montezuma killed.
30th June	The Night of Tears: Spaniards are massacred as they flee from Tenochtitlan and spend nearly a year re-grouping and planning.
1521	
22nd May	Battle for Tenochtitlan begins.
1st Aug	Spaniards fight their way into the centre of Tenochtitlan.
13th Aug	Tenochtitlan falls to the Spaniards and the Aztecs surrender.

Cortes strengthens Spanish control

In the years to 1528, Cortes strengthened control in many ways:
-He continued killing Aztecs and natives that supported them.
-He took tribute from remaining Aztec chiefs.
-Tenochtitlan was rebuilt on the ruins of the Aztec city.
-He encourages exploration and establishment of new communities.
-Agriculture was developed.
-Industry was developed.
-He helped with the spread of Christianity.

Aztec priests killed

Temples pulled down

The Spanish impose the encomienda system of landholding

The fall of the Aztec Empire

Aztec leaders killed and Aztecs ruled by Spaniards

Millions of Aztecs die from smallpox

Christian priests and friars convert Aztecs to Christianity

Forced labour kills millions of Aztecs

2. The Conquistadors 1513-1528

Balboa the Conquistador

1509

1510

1511

1513

1514

Pedrarias and Espinosa: the significance of Panama

Velázquez conquers Cuba

1511 –	**1512 –**
1513 –	**1514 –**
1515 –	

Cortes' expedition to Mexico 1519

1519 February –	**March –**	**April –**
July –	**August –**	**September –**

Aztec religion

Quetzalcoatl

What beliefs did the Aztecs have towards the Spanish?

Magellan

Cortes removed as governor

Date	Event
1519	
Feb	
March	
April	
July	
August	
Sept	
October	
8th Nov	
14th Nov	
1520	
April	
May	
24-29 June	
29th June	
30th June	
22nd May	
1st Aug	
13th Aug	

Cortes strengthens Spanish control

Aztec priests killed

Temples pulled down

The Spanish impose the encomienda system of landholding

The fall of the Aztec Empire

Aztec leaders killed and Aztecs ruled by Spaniards

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Year 11 GCSE Religious Education KO - Islam Practices

Keywords	
Tawalla	Showing love for God and for those who follow Him
Tabarra	Disassociation with God's enemies
Khums	The obligation to pay one-fifth of acquired wealth
Lesser jihad	The physical struggle or holy war in defence of Islam
Greater jihad	The **daily** struggle and inner spiritual striving to live as a Muslim
Sunni	Muslims who believe in the successorship of Abu Bakr, Umar, Uthman and Ali as leaders after the Prophet Muhammad
Shi'a	Muslims who believe in the Imamah, leadership of Ali and his descendants
Niyyah	Intention during prayer - having the right intention to worship God
Du'a	A personal prayer that is done in addition to Salah e.g. asking Allah for help

What we are learning in this unit

A. The 5 Pillars and 10 Obligatory Acts
B. Salah
C. Sawm
D. Zakah
E. Hajj
F. Jihad
G. Id-ul-Adha
H. Id-ul-Fitr

A.	*5 Pillars of Islam and 10 obligatory acts*
What are the 5 pillars	• 5 key practices or duties for Muslims • Both Sunni and Shi'a keep these (Shi'a have them as part of the 10 obligations) • They are seen as pillars "holding up the religion" and are all of equal importance
What are the 10 obligatory acts	• There are 10 obligations for a Muslim according to the Shi'a branch of Islam. • These include prayer, fasting, almsgiving, pilgrimage, jihad, khums, directing others towards good, forbidding evil, tawalla and tabarra
Shahadah	• Shahadah is the first of the 5 pillars • It is the Muslim declaration of faith • ***"there is no God but Allah, and Muhammad is His messenger"*** • This is a statement that Muslims reject anything but Allah as their focus of belief • It also recognises that Muhammad has an important role and his life is an example to follow

	Jihad

Lesser Jihad	• Originated when Prophet Muhammad and early Muslims were being attacked and oppressed by the Meccans and had no choice but to engage
	• ***"Fight in the way of God those who fight against you but do not transgress"***
	• Conditions for declaration
	  • self-defense
	  • proportionate
	  • legitimate authority
	  • no harm to civilians

Greater Jihad	• A struggle within oneself to follow the teachings of Islam and be a better person • e.g. perform the Five Pillars, follow Sunnah and avoid temptation • ***"encourage what is right and forbid what is wrong"***

B.	*The 5 Pillars - Salah*
What is it?	• ***"Salah is a prescribed duty that has to be performed at the given time by the Qur'an"*** • ***Muslims pray 5 times per day and this allows them to communicate with Allah.*** • The prayers are done at dawn (fajr), afternoon • (zuhr), late afternoon (asr), dusk (maghrib) and night (isha) • Muslims face the holy city of Makkah when paying.
Wuzu	• The washing process to purify the mind and body for prayer • Muhammad said the key to Salah is cleanliness • Hands, arms, nose, mouth, head, neck and ears are cleaned as well as both feet up to the ankle.
Rak'ahs and recitations	• These are the movements that Muslims make during prayer • Takbir – raise hands to ears and say 'Allahu Akbar' • Qiyam – Standing, Muslims recite Surah • Then bow to the waist saying ***"Glory be to my Great Lord and praise be to Him"*** • Then sink to their knees saying ***"Glory be to my Lord, The Most Supreme...".***
Salah at home	• Salah is a big part of family life • Meals and other activities are usually scheduled to fit around prayer times • Families pray all together and might have a room set aside for prayer
Salah in the mosque	• All mosques have a qiblah wall which is to show where to face Makkah • Men and women pray in separate rooms at the Mosque
Jummah	• Jummah is congregational prayer held on a Friday at the mosque where the imam leads the prayer • Praying together as a community develops the feeling of unity amongst Muslims • Men are obliged to attend unless they are sick or too old • Women do not have to go – they may pray at home instead
Differences between Sunni and Shi'a	• Shi;a Muslims combine some prayers so they may only pray 3x a day • Shi'a use natural elements e.g. clay where their head rests

Year 11 GCSE Religious Education KO - Islam Practices

Keywords	
Tawalla	
Tabarra	
Khums	
Lesser jihad	
Greater jihad	
Sunni	
Shi'a	
Niyyah	
Du'a	

What we are learning in this unit

A. The 5 Pillars and 10 Obligatory Acts
B. Salah
C. Sawm
D. Zakah
E. Hajj
F. Jihad
G. Id-ul-Adha
H. Id-ul-Fitr

A.	*5 Pillars of Islam and 10 obligatory acts*
What are the 5 pillars	
What are the 10 obligatory acts	
Shahadah	

	Jihad
Lesser Jihad	
Greater Jihad	

B.	*The 5 Pillars - Salah*
What is it?	
Wuzu	
Rak'ahs and recitations	
Salah at home	
Salah in the mosque	
Jummah	
Differences between Sunni and Shi'a	

Year 11 GCSE Religious Education KO - Islam Practices

	The 5 Pillars - Zakah
The role of giving alms	• ***Muslims believe it is their duty to ensure Allah's wealth has been distributed equally as everyone is the same*** • The Qur'an commands to give to those in need
The significance of giving alms	• Giving 2.5% of savings/wealth to charity • Wealth can cause greed which is evil, so Zakah purifies wealth – wealth is given by God and must be shared • The Prophet Muhammad practiced Zakah as a practice in Medina • Given to the poor, needy and travellers • ***Sadaqah*** is giving from the heart out of generosity and compassion
Khums	• Shi'a Islam – one of the 10 obligatory acts • 20% of any profit earned by Shi'a Muslims paid as a tax • Split between charities that support Islamic education and anyone who is in need • ***"know that whatever of a thing you acquire, a fifth of it is for Allah, for the Messenger, for the near relative, and the orphans, the needy, and the wayfarer"***

	The 5 Pillars - Hajj
The role of pilgrimage	• A pilgrimage to Makkah which is compulsory for Muslims to take at least once as long as they can afford it and are healthy
The significance of pilgrimage	• God told Ibrahim to take his wife and son on a journey and leave them without food or water • Hajira ran up and down two hills in search of water, could not find any and prayed to God. Then water sprung from the ground. This is the Zamzam well • When Ibrahim returned he was commanded to build the Ka'ba as a shrine dedicated to Allah • Hajj is performed in the month of Dhu'l-Hijja
Actions	• Ihram – dressing in two pieces of white cloth • Circling the Ka'aba 7 times (tawaf) • Drinking water from the Zamzam well like Hajar • walking between Al-Safa and Al-Marwa hills seven times • Throwing stones at 3 pillars (jamarat) to represent casting out the devil and remembering Ibrahim throwing stones at the devil to drive him away • Asking Allah for forgiveness at Mt Arafat • Collecting pebbles at Muzdalifah

	The 5 Pillars - Sawm
The role of fasting	• Fasting during Ramadan (9th month in Muslim calendar) • Muslims give up food, drink, smoking and sexual activity in daylight hours • Pregnant people, children under 12, travellers and elderly people are exempt from fasting.
The significance of fasting	• Ramadan is believed to be the month that Prophet Muhammad began to receive revelations of the Qur'an • Helps Muslims to become spiritually stronger
Reasons for fasting	• Obeying God and exercising self-discipline • Develops empathy for the poor • Appreciation of God's gifts • Giving thanks for the Qur'an • Sharing fellowship and community with other Muslims
Night of power	• The night when the Angel Jibril first appeared to Muhammad and began revealing the Qur'an. • The most important event in history – ***"better than a thousand months" (Surah 97:3)*** • Laylat Al-Qadr is the holiest night of the year. Muslims try to stay awake for the whole night to pray and study for the Qur'an

	Id-ul-Adha, Id-ul-Fitr, Ashura
Id-ul-Adha Not an official holiday in UK	• ***Festival of sacrifice*** • Marks the end of Hajj and is a chance for whole Ummah to celebrate • ***Origins*** – Ibrahim's commitment to God in being willing to sacrifice his son, Ishmael. God was testing Ibrahim • ***Key events –*** new clothes, sacrificing an animal, visiting the Mosque. • People ask a butcher to slaughter a sheep for them and share the meat with the community
Id-ul-Fitr Public holiday in Muslim majority countries, not UK	• ***Festival of fast-breaking*** • Marks the end of Ramadan • ***Key events –*** Decorate homes with colourful light and banners, dress in new clothes, gather in Mosques, give gifts and money, give to the poor • ***Zakah ul-Fitr –*** donation to the poor so that everyone can eat a generous meal at the end of Ramadan.
Ashura	• Sunni celebration – many fast on this day which was established by Prophet Muhammad • Shi'a mourning – Husayn was murdered and beheaded. Muslims remember his death and betrayal • ***Key events –*** public displays of grief, day of sorrow, wear black, re-enactments of martyrdom, not a public holiday in Britain but Muslims may have day off school

Year 11 GCSE Religious Education KO - Islam Practices

	The 5 Pillars - Zakah
The role of giving alms	
The significance of giving alms	
Khums	

	The 5 Pillars - Sawm
The role of fasting	
The significance of fasting	
Reasons for fasting	
Night of power	

	The 5 Pillars - Hajj
The role of pilgrimage	
The significance of pilgrimage	
Actions	

	Id-ul-Adha, Id-ul-Fitr, Ashura
Id-ul-Adha Not an official holiday in UK	
Id-ul-Fitr Public holiday in Muslim majority countries, not UK	
Ashura	

GCSE unit 1 SPANISH Knowledge organiser.
Topic Me my family and friends

What we are learning this term:

A. Talking about your family
B. Describing your family and friends
C. Explaining family relationships
D. Describing relationships
E. Describing future plans
F. Translation practice

6 Key Words for this term

1. Me llevo bien
2. No soporto
3. discuto
4. El año próximo
5. Por otro lado
6. Voy a…

1.1G ¿Cómo es tu familia?

1.1G ¿Cómo es tu familia?

El/la abuelo/a	grandfather/grandmother
los abuelos	grandparents
alegre	happy
alto/a	tall
amable	kind
anciano/a	old
la barba	beard
calvo/a	bald
cariñoso/a	affectionate, tender
casi nearly,	almost
castaño/a	brown hair colour
corto/a	short
delgado/a	thin
las gafas	glasses
gracioso/a	funny
guapo/a	good looking, handsome
El/la hermano/a	brother/sister
El/la hijo/a	son/daughter
joven	young
largo/a	long
liso/a	straight
la madrastra	stepmother
los ojos	eyes
el padrastro	stepfather
las pecas	freckles
pelirrojo/a	red-haired
el pelo	hair
rizado/a	curly
la tía	aunt
el tío	uncle
viejo/a	old
sensible	sensitive

1.1F Hablando de los amigos

a menudo	often
alegrarse de	to be happy about
comprensivo/a	understanding
conocer	to know a person
el consejo	advice
la cosa	thing
cuidar	to look after
la discusión	argument
divertido/a	good fun
egoísta	selfish
el equipo	team
escribir	to write
fastidiar	to annoy, to bother
fuerte	strong
hablador/a	talkative
honrado/a	honest
maduro/a	mature
mismo/a	same
peligroso/a	dangerous
reírse	to laugh
seguro/a	certain, sure
el sentido del humor	sense of humour
travieso/a	naughty
triste	sad
el verano	summer
la vida	life

1.1H Relaciones con la familia

abierto/a	open
aconsejar	to advise
actualmente	nowadays
aguantar	to bear, to put up with
arreglar	to tidy
la barrera generacional	generation gap
el cariño	affection
celoso/a	jealous
la culpa	blame, fault
los demás	others
harto/a	fed up
el hogar	home
hoy en día	nowadays
incluso	even
injustamente	unfairly
juntos	together
la libertad	freedom
manera	way
molestar	to bother
oír hablar de	to hear about
olvidar	to forget
orgulloso/a	proud

Key Verbs

Llevarse to get on	Ir To go	Soportar To stand	Hacer – to do/make	Discutir – to argue
Me llevo I get on	Voy I go	Soporto I can stand	Hago I do	Discuto I argue
Te llevas You (s) get on	Vas You go	Soportas You can stand	Haces You do	Discutes You argue
Se lleva He/se gets on	Va s/he goes	Soporta He/she can stand	Hace s/he does	Discute He/she argues
Nos llevamos They get on	Vamos They go	Soportamos W can stand	Hacemos We do	Discutios We argue
Se llevan They get on	Van They go	Soportan They can stand	Hacen They do	Discuten They argue

1.1H Relaciones con la familia

parecido/a	similar
la pelea	fight
perezoso/a	lazy
provocar	to cause
el sobrino / la sobrina	nephew, niece
tender a	to tend to
todavía	still
tratar	to treat
triste	sad

1.2G Hablando de parejas

el beso	kiss
cada vez más	more and more
cocinar	to cook
comprar	to buy
echar de menos	to miss someone
enamorado/a	in love
los familiares	relatives
feliz	happy
la gente	people
el invitado/a	guest
maleducado/a	rude
el marido	husband
el matrimonio	marriage
la mujer	wife, woman
la novia	girlfriend, fiancée
el novio	boyfriend, fiancé
parecer	to seem
la pareja	partner
los parientes	relatives
pelear(se)	to fight
el piso	flat, apartment
serio/a	serious, responsible
sonreír	to smile

1.2F Planes para el futuro

así que	so, therefore
la boda	wedding
buscar	to look for
cambiar	to change
el casamiento	wedding
casarse	to get married
el compañero/a	colleague, friend
decepcionado/a	disappointed
encontrar	to find
la felicidad	happiness
la fiesta	party, festival
por eso	therefore
próximo/a	next
el sitio	place
solo/a	alone, only
soltero/a	single
tener suerte	to be lucky
las vacaciones	holidays
ya no	no longer

1.2H Las relaciones de hoy en día

ahora	now
alguien	someone
cara a cara	face to face
distinto/a	different
en contra	against
en primer lugar	in the first place,
la edad	age
estar de acuerdo	to agree
el/la jubilado/a	retired person,
pagar	to pay
la pareja	partner
la piel	skin
por otro lado	on the other hand

GCSE unit 1 SPANISH Knowledge organiser. Topic Me my family and friends

Translation Practice. G – blue F – orange H - Green	
Mi **a**_____ es	My **grandfather** is
a_____ y _____	**Happy** and **Kind**
Tiene los___verdes	He has green eyes
Y tiene el pelo ____	He has **Curly hair**
la _____ de mis sueños	The **wife** of my dreams
Quiero un _____ guapo	I want a pretty **boyfriend**
Mis padres me dan buenos _____	My parents give me good **advice**
Es importante _____a otros	It's important **to look after** others
Se debe _____ a los niños	It's necessary **to advise** kids
Mi hermano es _____	My brother **is understanding**
Es bueno _____ a otra gente	It's good **to know** other people
Tener una _____ me importa	Having a **partner** is important
____ me interesa	**Getting married** interests me
Mis padres me dan mucho _____	My parents give me lots of **affection**
No soy nunca _____	I'm never **jealous**
Estoy _____/a de los deberes	I'm **fed up** of homework
encontrar ____	To find a **partner**
Fue una buena ____	It was a good **party**
No quiero ser ____	I don't want to be **single**

Key Questions: Answer the following in your own words. Use these model answers	
¿Puedes describir te? ¿Cómo es tu aspecto físico, tu personalidad?	Soy bastante alto y delgado. Tengo los ojos azules y el pelo marrón y liso. Mis padres me describen como una persona cariñosa, comprensiva, sensible, honesta y un poco vaga.
¿Cómo sería un novio perfecto/una novia perfecta? ¿Por qué?	Mi novia perfecta sería muy guapa y honesta y tendría el pelo rubio, corto y rizado. Todos los días seria sensible y no sería nunca perezosa o torpe.
¿Quiénes son los miembros de tu familia?	Somos cinco en mi familia. Vivo con mis padres que se llaman …. Tengo un hermano menor que se llama .. y tengo una hermana mayor que tiene ____ años
¿Te llevas bien con tu familia? ¿Por qué?	Me llevo bien con mi hermano porque es cariñoso y siempre comprensivo. No me llevo bien con mi hermana porque nos peleamos mucho y mi hermana se enfada conmigo.
¿Hay discusiones en tu familia? ¿De qué se discute?	Sí, hay discusiones en mi familia. Hay tensión en la casa de vez en cuando. No estoy de acuerdo con los consejos de mis padres. También hay discusiones porque mi hermana pone su música demasiado fuerte
¿Quieres casarte y tener niños en el futuro? ¿Por qué?	Si, en el futuro me gustaría casarme con un hombre/mujer (man/woman) honesto y sensible. Quiero casarme porque el matrimonio es muy importante para mi y quiero una boda perfecta en una iglesia. Quiero tener dos niños, una chica y un chico. Voy a tener niños después de haber ido a la universidad
¿Qué has hecho recientemente con tu familia?	Recientemente, fui al centro de la ciudad con mi familia. Fuimos juntos en coche y fuimos para comprar unos regalos para el cumpleaños de mi abuelo. Después comimos en un restaurante, yo comí un bocadillo de pollo, mi hermana comió una ensalada. Me gustó mucho porque fue muy divertido y la comida fue muy deliciosa.
¿Crees que el matrimonio es importante para ti? ¿Por qué?	Quiero casarme porque el matrimonio es muy importante para mí y quiero una boda perfecta en una iglesia. Aunque las bodas son muy caras, tener una boda es mi ambición.

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

GCSE Unit 2 SPANISH Knowledge organiser.
Topic Technology in Everyday Life

What we are learning this term:

A. Saying how you keep in touch via the internet
B. Picking out key words when reading
C. Giving opinions about online messaging
D. Talking about using a mobile
E. Give opinions about mobile technology

6 Key Words for this term

1. chateo	4. sala de chat
2. redes sociales	5. descargar
3. en línea	6. subir

2.1G Comunicarse por internet

a veces	sometimes
allí	there
chatear	to chat online
colgar fotos	to post photos
el correo electrónico	email
demasiado/a	too much
hablar	to speak / talk
increíble	incredible
justo/a	fair
el país	country
un poco	a Little
propio/a	own
la razón	reason
la red	internet / network
la red social	social network
la sala de chat	chat room
la salida	outing
todos los días	every day
usar	to use
utilizar	to use
la vez	time

2.2H ¿Podrías vivir sin el móvil y la tableta?

raras veces	rarely
la sala de chat	chat room
la señal	signal
la tarjeta de crédito	credit card
todo lo contrario	the exact opposite

2.1F ¿Cómo prefieres mantenerte en contacto?

comunicarse	to communicate
desafortunadamente	unfortunately
empezar	to start
escoger	to choose
genial	brilliant / great
gratís	free of charge
el hecho	fact
el inconveniente	disadvantage
interactivo/a	interactive
el jefe / la jefa	boss
la letra	letter of the alphabet
mandar	to send
los medios sociales	social media
el móvil	mobile phone
ofrecer	to offer
el ordenador	computer
la pantalla	screen
poder	to be able to
por desgracia	unfortunately
por mi parte	as far as I'm concerned
la revista digital	digital magazine
sencillo/a	simple
tampoco	neither / nor

2.2G ¡El móvil para todo!

aunque	although
dar	to give
dar las gracias	to thank
enviar	to send
el juego	game
lento/a	slow
el mensaje de texto	text message
el móvil	mobile phone
navegar la red	to surf the internet
la norma	rule
prohibido	forbidden
el regalo	present, gift
la regla	rule
ridículo/a	ridiculous
roto/a	broken
único/a	only

Key Verbs

Descargar To download	Subir To upload	Mandar To send	Hacer – to do/make	Chatear To chat
Descargo I download	Subo I upload	Mando I send	Hago I do	Chateo I chat
Descargas You download	Subes You upload	Mandas You send	Haces You do	Chateas You chat
descarga He/she download	sube He/she uploads	Manda He/she sends	Hace s/he does	Chatea He/she chats
Descargamos We download	Subimos We upload	Mandamos We send	Hacemos We do	Chateamos We chat
Descargan They download	suben They upload	Mandan They send	Hacen They do	Chatean They chat

2.2F La tecnología portátil

andar	to walk
archivo	file
borrar	to delete, erase
la canción	song
cargar	to load
contestar	to answer
el correo basura	spam, junk mail
cualquier	any
de vez en cuando	from time to time
el disco duro	hard drive
el espacio	space
igual	same
el ordenador portátil	laptop
sacar fotos	to take photos
sentir	to feel
la tableta	tablet
la tecnología	technology

2.1H Las redes sociales

a mi juicio	in my opinion
acosar	to bully
el acoso	bullying
apasionar	to excite
aun	even
bajo	low
compartir	to share
el comportamiento	behaviour
el desarrollo	development
la desventaja	disadvantage
divertirse	to have a good time
gratuito/a	free of charge
mejorar	to improve
el riesgo	risk
el/la seguidor/a	follower
tener éxito	to be successful
el/la usuario/a	user

2.2H ¿Podrías vivir sin el móvil y la tableta?

la conexión inalámbrica	wireless connection
chatear	to chat online
correr	to run
darse cuenta de	to realise
en vez de	instead of
las felicidades	best wishes, congratulations
felicitar	to send best wishes/to congratulate
hasta	until
imprescindible	essential
preocupar	to worry

GCSE Unit 2 SPANISH Knowledge organiser. Topic Technology in Everyday Life

Translation Practice. G – blue F – orange H - Green	
Mando _____ _____ a mis amigos	I send **emails** to my friends
Me gusta usar ____ _____	I like to use **social networks**
Siempre _____ fotos a Instagram	I always **upload** photos to Instagram
Recibo más _____ en Facebook que Twitter	I receive more **messages** on FB than Twitter
El _____ _____ es más útil que Facebook	**Email** is more useful than Facebook
Twitter es menos divertido que las _____	Twitter is less fun than **chatrooms**
Estoy borrando _____	I am deleting **files**
Los _____ son muy caros	**Laptops** are very expensive
Me gusta _____ a los videojuegos	I like **playing** video games
_____ muchas fotos con mi tableta	**I take** lots of photos with my tablet
Prefiero _____ correos eléctronicos	I prefer **to send** emails
I hate _____	I hate **spam emails**
Estamos ayudando a niños usar un _____	We are helping young children to use **a laptop**
He _____ de usar Instagram	I have **stopped** using Instragram
Está _____ hablar con su familia en Francia	He's **trying** to talk to his family in France
He _____ con comprar un móvil nuevo	I have **dreamt** of buying a new mobile
_____ de hablar con nuestros amigos	**We have just finished** speaking to our friends
_____ es importante para todos	**Technology** is important for everyone
He _____ Facebook antes	I have **used** Facebook before

Key Questions: Answer the following in your own words. Use these model answers	
¿Cómo usas las nuevas tecnologías/los redes sociales?	Todos los días uso las nuevas tecnologías. Uso mi ordenador, mi portátil nuevo, mi móvil y las redes sociales. Uso mi ordenador para ver videos de mis artistas favoritos en YouTube. Uso mi ordenador para hacer mis deberes y uso mi móvil para jugar juegos y subir y descargar fotos de mis amigos en Facebook.
¿Las nuevas tecnologías/los redes sociales son importante para ti? ¿Por qué?	Las redes sociales son muy importantes para mí. Las uso para contactarme con mis amigos, para charlar con mis amigos, para compartir experiencias y fotos, para ver videos de mis músicos favoritos. Ayer usé mi móvil para llamar a mis amigos, mandé mensajes a mis amigos y hice mis deberes.
¿Crees que las redes sociales son buenas o malas? ¿Por qué?	De un lado, lo bueno de las redes sociales es que puedes compartir experiencias y fotos con tus amigos, puedes seguir tus artistas o músicos favoritos. También lo bueno es que es muy rápido y barato mantenerte en contacto con tu familia. Lo malo es que los móviles cuestan mucho dinero, tu vida no es muy privada, es difícil para, es muy fácil ser dependiente de las redes sociales. Lo malo es que las personas no hablan y solo usan sus móviles.
¿Para qué usaste tu ordenador ayer?	Ayer usé mi ordenador para charlar con mis amigos y para mandar mensajes. También, ayer descargué música de la Red y subí fotos en Facebook. Me gustó porque fue entretenido y fue mejor que hacer mis deberes.
¿Qué es tu opinión de Facebook/youtube/skype/Twitter/Instagram?	En mi opinión Facebook etc es muy importante/útil/entretenido/divertido.
¿Podrías vivir sin tu móvil / tu tableta? ¿Por qué?	No podría vivir sin mi móvil. Soy adicto a mi móvil. Lo uso todos los días para contactar con mi familia y es muy importante para buscar información, ayudar con los deberes

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a subir fotos = I'm going to upload photos Va a mandar un correo eléctronico = He / She is going to send an email

GCSE Unit 3 SPANISH Knowledge organiser.
Topic Free Time Activities

What we are learning this term:

A. Talking about free time
B. Talking about your plans for the weekend
C. Talking about eating out
D. Talking about special occasion meals
E. Extending what you can say about sport
F. Talking about sport in the world

6 Key Words for this term

1. disfrutar
2. jugar
3. los deportes
4. campeones
5. formentar
6. a selección

3.1G ¿Qué te gusta hacer?

aburrido/a	boring
bailar	to dance
cantar	to sing
el cine	cinema
de vez en cuando	from time to time,occasionally
entretenido/a	entertaining
estimulante	challenging
jugar	to play (game, sport)
leer	to read
libre	free
odiar	to hate
la película	film
practicar	to practise
salir	to go out
la tarde	afternoon, evening
el teclado	keyboard
tocar	to touch, to play(an instrument)
ver	to see, watch

3.3G ¿Haces deporte?

activo/a	active
al aire libre	in the open air, outdoors
ayudar	to help
el baloncesto	basketball
el campo	countryside, playing field
la cancha	court
los deberes	homework
la equitación	horse riding
el estadio	stadium
montar a caballo	to ride a horse
montar en bicicleta	to ride a bike

3.1F ¿Qué haces en tu tiempo libre?

a veces	sometimes
bastante	quite
cada	each, every
cenar	to have an evening meal
charlar	to chat
el coro	choir
descansar	to rest
los dibujos animados	cartoons
el documental	documentary
el fin de semana	weekend
genial	great
las noticias	news
nunca	never
ocupado/a	occupied, busy
policíaco/a (adj.)	police, detective, crime
poner	to put
por lo general	in general
siempre	always
el teatro	theatre
la telenovela	soap opera
terminar	to finish
el tiempo	time
todo/a/os/as	all, every
tonto/a	silly, stupid
la vez	time, occasion

3.2G Comer y Beber

el (fem.) agua (mineral)	(mineral) water
beber	to drink
el bocadillo	sandwich
la carne	meat
la cena	evening meal
cenar	to have supper / to have an evening meal
comer	to eat
la comida	lunch, food, meal
desayunar	to have breakfast
el desayuno	breakfast
después	afterwards
el helado	ice cream
el huevo	egg
el jamón	ham
la leche	milk
las legumbres	pulses
la mantequilla	butter
la manzana	apple
la mermelada	jam, marmalade
las patatas fritas	chips, fries

Key Verbs

Salir To go out	Ir To go	Jugar To play	Hacer – to do/make	Tocar To play (ins)
Salgo I go out	Voy I go	Juego I play	Hago I do	Toco I play
Sales You go out	Vas You go	Juegas You play	Haces You do	Tocas You play
Sale He/she goes out	Va s/he goes	Juega He/she plays	Hace s/he does	Toca He/she plays
Salimos We go out	Vamos They go	Jugamos We play	Hacemos We do	Tocamos We play
Salen They go out	Van They go	Juegan They play	Hacen They do	Tocan They play

3.2G Comer y Beber

el perrito caliente	hot dog
el pescado	fish
el pollo	chicken
el postre	dessert, pudding
el queso	cheese
la sopa	soup
el té	tea
tomar	to take, to have (food, drink)
la tortilla	omelette
la tostada	toast
el vaso	glass
las verduras	vegetables

3.2F Vamos a comer fuera

el atún	tuna
el bacalao	cod
la barra	loaf
el bistec	steak
los calamares	squid
la cebolla	onion
el cerdo	pork
la cerveza	beer
los champiñones	mushrooms
el chorizo	chorizo
la chuleta	chop
el cordero	lamb
el filete	fillet
la fresa	strawberry
las gambas	prawns
el gazpacho	chilled tomato soup
los guisantes	peas
el jamón serrano	cured ham
las judías verdes	green beans

3.1H Hablando del tiempo libre y de los planes

aburrido/a	boring
agradable	pleasant
al aire libre	in the open air, outdoors
la batería	drums
la canción	song
dar un paseo	to go for a walk
de vez en cuando	from time to time, occasionally
desafiante	challenging
divertido/a	fun
emocionante	exciting

3.3F ¿Qué deportes harás?

el alpinismo	rock climbing
cansado/a	tired
la carrera	race
el concurso (contest)	competition
contestar	to answer
durante	during
el ejercicio	exercise
el entrenamiento	training
entrenar	to train
el equipo	team
el esquí	skiing
este, esta	this
ganar	to win
el jugador	player
mañana	tomorrow
el miembro	member
el partido	match
probar	to try, to test

GCSE Unit 3 SPANISH Knowledge organiser. Topic Free Time Activities

Translation Practice. G – blue F – orange H - Green	
No me gusta _____	I don't like **going shopping**
Me encanta _____ con mis amgos	I love **going out** with my friends
Me _____ escuchar música	I **love** listening to music
No me gusta _____	I don't like **dancing**
Si tengo _____	If I have **the time**
Hago _____ de música	**I do** music classes
De vez en cuando _____ una novela	From time to time, **I read** a novel
Siempre _____ la guitarra con la banda	I always **play** the guitar with the group
A veces ____ a algún concierto	Sometimes **I go** to some concert
El fin de semana _____ juego al fútbol	On the weekend I **always** play football
Siempre _____ muy preocupada	**I am** always busy
Generalmente _____ música por las tardes	Generally **I listen** to music in the evenings
Me _____ jugar a los videojuegos	Playing video games **interests me**
Ella quiere patina en la pista de _____	She wants to skate on the **ice rink**
_____ al gimnasio	**I will come** to the gym
_____ if there is a match?	**Will you know** if there's a match?
_____ el ciclismo	**I will try** cycling
Fue una buena ____	It was a good **party**
No quiero _____	I don't want **to participate**

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué haces en tu tiempo libre? Frecuencia? Opiniones?	-Normalmente juego al futbol todos los días después del colegio. Lo que me encanta es jugar al futbol con mis amigos porque es bueno para la salud y es emocionante y relajante jugar contra tus amigos. De vez en cuando juego con videojuegos pero ayer hice ciclismo, hice mis deberes y toque mi guitarra. Ayer, fui al colegio durante el día. Después del colegio fui al polideportivo con mis amigos y jugué/jugamos al baloncesto juntos. Ayer por la mañana fui de compras en el centro de la cuidad con mi madre y fuimos a las tiendas de ropa. Lo que me encantó/gustó fue que ví una película entretenido por la noche/ fue que jugué mi deporte favorito y podía entrenarme.Todos los días juego al futbol y al baloncesto, que son mis deportes favoritos. De vez en cuando hago ciclismo y practico el atletismo pero son muy estresantes, duros y no son relajantes. Lo que me encanta es jugar al fútbol en mi equipo los fines de semana.
¿Te gusta ver la televisión? Qué has visto en la televisión recientemente?Tienes unprograma favorito?	Si, me gusta ver la televisión, me gustan los programas de horror, de tele-realidad, los documentales y de deporte. Lo que me encanta es ver los dibujos-animados porque son más entretenidos que las noticias. Ayer ví las noticias con mis padres. Mi programa favorito es … porque es ….
¿Qué es tu película favorita? Qué película has visto recientemente en el cine?	Mi película favorita es … porque me encantan las películas de acción/tiene mucha violencia/tiene buenos actores/es muy romántica/me encanta la historia/tiene buenos efectos especiales.
¿Cuando se cena en Inglaterra y en España? ¿Cuándo prefieres cenar o almorzar?	Normalmente se cena en Inglaterra a las seis, como mi almuerzo a las dos, como mi desayuno a las ocho.
Describe una cena especial	Recientemente fui a un restaurante con mi familia para celebrar el cumpleaños de mi abuelo. Fuimos a un restaurante chino porque es la comida favorita de mi abuela. Primero, comí .. y bebí. Para el postre comí y bebí . Lo que me gustó fue la buena comida/ver a y hablar con toda mi familia. Fue muy emocionante.

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Forming the future tense ('will')	**Future Tense ('will…')** **All verb groups:** -é, -ás, -á, -emos, -éis, -án
Imperfect Tense *(Past, ongoing actions, descriptions, 'used to' or 'was doing')*	**-ar** -aba, -abas, -aba, -ábamos, - abais, -aban **-er and –ir** -ía, -ías, -ía, -íamos, - íais, -ían

GCSE Unit 4 SPANISH Knowledge organiser.
Topic Customs and Festivals

What we are learning this term:

A. Learning about Spanish life and routines
B. Learning about local customs
C. Talking about a Spanish festival
D. Learning about Latin American culture
E. Skim reading for key information
F. Using past expressions of time

6 Key Words for this term

1. divertirse
2. hispánico
3. el turismo
4. el desfile
5. celebrarse
6. los antepasados

4.1G La vida en familia

a media mañana	at mid-morning
acostarse	to go to bed
el bollo	bun
la cena	evening meal
coger	to catch
la comida	food, meal, lunch
el desayuno	breakfast
la dieta	diet
la leche	milk
levantarse	to get up
ligero/a	light
participar	to participate, to take part
probar	to try, to try out
el recreo	break
saludable	healthy
la sobremesa	sitting chatting at the table after a meal
el trabajador	worker
la tradición	tradition
traer	to bring
tranquilamente	calmly
el vaso	glass

4.1H ¿Cambian las costumbres?

acostarse	to go to bed
cerrarse	to close
coger	to catch
corto/a	short
empezar	to start
hace calor	it is hot
levantarse	to get up
el marido	husband
la mayoría	majority
el ordenador	computer

4.1F Algunas costumbres regionales

la actuación	performance
agradable	pleasant
el ambiente	atmosphere
antiguo/a	old
la batalla	battle
el caballo	horse
la camisa	shirt
el concurso	competition
conmemorar	to commemorate
correr	to run
la costumbre	custom
demasiado	too much, too many
el desfile	parade, procession
el diablo	devil
divertirse	to enjoy oneself
emocionante	exciting
el encierro	bull run
encontrar	to find
enorme	enormous
entender	to understand
entrenarse	to train
el espectáculo	show, display
extraño/a	strange
fatal	awful
formar	to form
histórico	historic
humano	human
impresionante	impressive
incómodo/a	uncomfortable
llevar	to wear, take, carry
el Mediterráneo	Mediterranean
el/la moro/a	Moor (historically a person from North Africa)
nadie	no one
natural	natural
el origen	origin
pasarlo bien	to have a good time
el peligro	danger
peligroso/a	dangerous
por encima de	over
precioso/a	beautiful
el producto	product
saltar	to jump
la seguridad	safety, security
la suerte	luck
el toro	bull
la torre	tower
el traje	suit, costume
único/a	only, unique
varios/as	several
vestirse (de)	to dress (in)

Key Verbs

Celebrar To celebrate	Ir To go	Disfrutar To enjoy	Hacer – to do/make	Disfrazar To dress up
Celebro I celebrate	Voy I go	Disfruto I enjoy	Hago I do	Disfrazo I dress up
Celebras You celebrate	Vas You go	Disfrutas You enjoy	Haces You do	Disfrazas You dress up
Celebra – he/she celebrates	Va s/he goes	Disfruta He/she enjoys	Hace s/he does	Disfraza He/she dresses up
Celebramos We celebrate	Vamos They go	Disfrutamos We enjoy	Hacemos We do	Disfrazamos We dress up
Celebran They celebrate	Van They go	Disfrutan They enjoy	Hacen They do	Disfrazan They dress up

4.2G Las fiestas de España – la Tomatina

al final	at the end
americano/a	American
australiano/a	Australian
británico/a	British
el camión	lorry
la camiseta	T-shirt
el carnaval	carnival
divertirse	to enjoy oneself
duchar	to shower
empezar	to start
la entrada	(entry) ticket
la foto	photo
la gente	people
hace (+ tiempo)	(time) ago
japonés/esa	Japanese
limitar	to limit
limpiar	to clean
llegar	to arrive
la manguera	hose, hosepipe
mojado/a	wet, soaked
el montón	heap, pile
la plaza mayor	the main square
primero/a	first
pronto	soon
rojo/a	red
sucio/a	dirty
típico/a	typical
tirar	to throw
todo el mundo	everyone, everybody
el tomate	tomato
el turismo	tourism
varios/as	several
el/la visitante	visitor
el/la voluntario/a	volunteer
volver	to return, to go back

4.2F Las fiestas del mundo hispano

el altar	altar, shrine
los antepasados	ancestors
aparecer	to appear
el azúcar	sugar
la calavera	skull
celebrarse	to be held
el cementerio	cemetery
cerca de	close to, near to
la ciudad	city, town
comenzar	to start
completamente	completely
describir	to describe
el desfile	parade
el diablo	devil
disfrazado	dressed up, disguised
en honor a	in honour of
encendido/a	lit
el esqueleto	skeleton
el estaño	tin
los familiares	family members
famoso/a	famous
la flor	flower
hispánico	Hispanic (i.e. of the Spanish speaking world)
la mina	mine
el/la minero/a	miner
el mole	'mole' sauce / Mexican chocolate sauce
la montaña	mountain
muerto	dead
la normalidad	normality
el número	number
la plata	silver
proteger	to protect
el pueblo	village, (small) town

GCSE Unit 4 SPANISH Knowledge organiser. Topic Customs and Festivals

Translation Practice. G – blue F – orange H - Green	
Normalmente _____ cereals	Normally **for breakfast we have…**
Ayer _____ una manzana	Yesterday **I ate** an apple
Carmen _____ de casa a las ocho	Carmen **leaves** the house at 8.00
Esta tarde _____ con la familia de mi amigo	This afternoon **I chatted** with my friend's family
Muchas veces no _____ nada	Many times **they don't drink** anything
No hablamos _____	We don't speak **a lot**
El año pasado _____ Pamplona	Last year **I visited** Pamplona
El _____ es una tradición extraña	The **bull run** is a strange tradition
Fue muy _____	It was very **exciting**
_____ dos años fuimos a Burgos	2 years **ago** we went to Burgos
Ayer fuimos a ver el _____	Yesterday we went to see the **procession**
El pueblo _____ interesante	The town **was** interesting
Vimos un _____ muy interesante	We saw a very interesting **competition**
¿Qué_____?	What **did you do**?
Hoy me _____ muy temprano	Today **I got up** very early
Compré _____ para mi familia.	I bought **presents** for my family
La _____ fue que..	The **disadvantage** was that…
_____ mucha basura.	**There was** a lot of rubbish.

Key Questions: Answer the following in your own words. Use these model answers	
Describe una fiesta popular en España	Una fiesta muy popular en España es laTomatina. La gente celebra la Tomatina en Agosto en Buñol cerca de Valencia. Durante la fiesta, la gente tira tomates, hay desfiles y bailes, se puede comer comida tradicional, la gente lleva disfraces. Después de la fiesta las calles están llenas de tomates. Es mi fiesta española favorita porque es muy entretenida y cómica.
Describe una fiesta popular en tu país	En Inglaterra celebramos la fiesta de Fuegos artificiales. Cada 5 de noviembre, celebramos el día de Guy Fawkes. Durante la noche, la gente va a parques o el centro de la ciudad y hay muchos fuegos artificiales. Celebra la noche cuando GuyFawkes intentó poner fuego al gobierno de Inglaterra. Es muy entretenida y cómica.
Describe tu experiencia la última vez que fuiste a una fiesta en tu país	La última vez que fui a una fiesta en Inglaterra fue muy entretenida y cómica. Fue en Noviembre cuando celebramos la fiesta de Guy Fawkes. Fuimos en el centro de la ciudad o el parque para ver muchos fuegos artificiales. Fue muy entretenido, porque comí algodón de azúcar y pasé la noche con mis amigos.
¿Qué diferencias notas entre la vida española y la vida de tu propio país?	La vida en España y en Inglaterra es un poco diferente. En España se come una dieta mediterránea, la gente come muchas frutas, verduras, mucho pescado y aceite de oliva. En Inglaterra comemos más patatas fritas y más carne y menos frutas y verduras. En Inglaterra los jóvenes suelen llevar uniforme para ir al colegio pero en España los jóvenes no llevan uniforme. ¡Qué bueno! También, en España los jóvenes de 17 o 18 años no suelen emborracharse durante el fin de semana pero en Inglaterra hay más problemas con los jóvenes y el alcohol.

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Imperfect Tense *(Past, ongoing actions, descriptions, 'used to' or 'was doing')*	**-ar** -aba, -abas, -aba, -ábamos, - abais, -aban **-er and –ir** -ía, -ías, -ía, -íamos, - íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

GCSE Unit 5 SPANISH Knowledge organiser.
Topic Home, Town, Neighbourhood and Region

What we are learning this term:

A. Saying what your house is like
B. Describing your house and where it is
C. Talking about the amenities in your area
D. Discussing the advantages and disadvantages of living in the town and country

6 Key Words for this term

1. vivir
2. alojamiento
3. alquilar
4. el hogar
5. la casa
6. las afueras

5.1G Mi casa

la alfombra	carpet, rug
el armario	cupboard, wardrobe
el ascensor	lift
la butaca	armchair
la cocina	kitchen, cooker, cuisine
cómodo	comfortable, convenient, handy
compartir	to share
el cuarto de baño	bathroom
el dormitorio	bedroom
los electrodomésticos	(electrical) appliances
la escalera	stairs
el espejo	mirror
la estantería	shelves, shelving unit
el fregadero	kitchen sink
la habitación	room
el lavabo	washbasin
la lavadora	washing machine
el lavaplatos	dishwasher
el microondas	microwave oven
la nevera	fridge
la pared	wall
el salón	lounge, living room
el sillón	armchair
el suelo	ground, floor
la terraza	terrace

5.2G ¿Qué se puede hacer donde vives?

el barrio	neighbourhood, area
la biblioteca	library
la bolera	bowling alley
el bolso	handbag
la carnicería	butcher's
el césped	lawn
el collar	necklace
descansar	to rest
el dinero	money
divertirse	to enjoy oneself, to have a good time
el estanco	tobacconist's (also sells stamps)
los grandes almacenes	department stores
la joyería	jeweller's
la juguetería	toy shop
el mercado	market
la muñeca	doll
el museo	museum
la panadería	baker's
el parque	infantil park, playground
la pastelería	cake shop
los pendientes	earrings
la plaza de toros	bull ring
la ropa (de marca)	(designer) clothes
la tienda de comestibles	grocery store, food

5.2F Mi ciudad

la avenida	avenue
el ayuntamiento	Town Hall
bienvenido/a	welcome
el centro comercial	shopping centre
la ciudad	city, large town
el club de jóvenes	youth club
Correos	Post Office
construir	to build
convertirse en (+ noun)	to become
los espacios verdes	open spaces
la fábrica	factory
fundar	to found
el/la habitante	inhabitant
la iglesia	church
ir de compras	to go shopping
el país	country
la plaza	square (in a town)
el polideportivo	sports centre
el pueblo (small)	town, village, people
el puente	bridge
el puerto	port, harbour
el siglo	century

Key Verbs

Vivir To live	alquilar To rent	Comprar To buy	Hacer – to do/make	Mudarse To move
Vivo I live	Alquilo I rent	Compro I buy	Hago I do	Me mudo I move
Vives You live	Alquilas You rent	Compras You buy	Haces You do	Te mudas You move
Vive He/she lives	Alquila He/she rents	Compra He/she buys	Hace s/he does	Se muda He/she moves
Vivimos We live	Alquilamos We rent	Compramos We buy	Hacemos We do	Nos mudamos We move
Viven They live	Alquilan They rent	Compran They buy	Hacen They do	Se mudan They move

5.1H Mi casa y mi barrio

abajo	under, downstairs
amplio/a	spacious, roomy
arriba	above, upstairs, up
el balcón	balcony
la calefacción	heating
la cocina amueblada	fitted kitchen
el comedor	dining room
el comercio	business, shop
imprescindible	essential, indispensable
inferior	lower
el jardín	garden
lujoso/a	luxurious
la mascota	pet
la piscina	swimming pool
la planta	floor (of a building), plant
la planta baja	ground floor
superior	upper, higher
la tienda	shop
la torre	tower, tower block
la vista	view, sight

5.1F ¿Cómo es tu casa?

las afueras	outskirts
antiguo	old
el árbol	tree
el campo	countryside, field,sports ground
el chalet / chalé	bungalow, detached house, villa
la costa	coast
el estante	shelf
encontrar	to find
encontrarse	to be situated
encontrarse con	to meet up with
la granja	farm
guardar	to keep, to put away,to save
la librería	bookcase, bookshop
la montaña	mountain
el mueble	piece of furniture
los muebles	furniture
peor	worse

GCSE Unit 5 SPANISH Knowledge organiser. Topic Home, Town, Neighbourhood and Region

Translation Practice. G – blue F – orange H - Green	
La nevera _____ en la cocina	The fridge **is** in the kitchen
¿Dónde _____ el cuarto de baño?	Where **is** the bathroom?
En ___ casa hay muchos libros.	In **his / her** house there are many books.
Creo que esta _____ es muy bonita.	I think that this **house** is very beautiful.
¿Qué _____ ?	What **do you think**?
Estoy en _____ de esto.	I am **against** this.
Los libros están _____ de la mesa	The books are **under** the table
Vivo muy _____ de la ciudad	I live very **far** away from the city
Mi abuelo vive en el _____	My grandfather lives in the **countryside**
La _____ está debajo de la ventana.	The **bookcase** is under the window
La casa de mi amigo _____ cerca del colegio	My friend's house **is** near the school
Mi casa está _____ de la costa	My house is **near** to the coast
¿Cómo es tu _____ casa?	What is your **new** house like?
Es un _____ moderno	It's a modern **apartment**
_____ vivir en la ciudad	**I prefer** to live in the city
_____ falta un ascensor	**It's** missing a lift
¿Dónde _____ exactamente?	Where **is** it exactly?
Si _____ hay vistas del mar	**If** there are sea views

Key Questions: Answer the following in your own words. Use these model answers	
¿Cómo es tu casa y describe la casa de tus sueños? ¿Compartes piso? ¿Qué piensas de tu casa?	Vivo en una casa adosada en las afueras de Swindon. Mi casa tiene dos plantas. Abajo tenemos una cocina grande, un cuarto de baño pequeño y el salón acogedor. Arriba tenemos el dormitorio de mis padres y mi dormitorio. También tenemos un jardín enorme detrás del jardín con muchos árboles y flores. La casa de mis sueños estaría en los Estados Unidos, cerca de Los Ángeles en California. La casa de mis sueños estaría en la costa cerca de una playa bonita. La casa tendría una piscina enorme, cuatro plantas y un garaje doble. Habría mucho espacio para todas mis cosas y todos mis coches. No tengo que compartir mi dormitorio pero cuando era joven tenía que compartir mi dormitorio con mi hermano Lo que me gusta de mi casa es que está cerca de mis amigos y es bonito y caliente en invierno. Lo que me molesta de mi casa es que la cocina es muy vieja (tenemos que renovar la cocina) y también lo que odio es que no tenemos mucho espacio en el salón.
¿Cómo es tu habitación, donde está tu casa exactamente?	Mi habitación está arriba/en la segunda planta. Mi habitación está cerca del cuarto de baño y la habitación de mis padres. Me encanta mi habitación porque no tengo que compartir con mi hermano. Me encanta mi habitación porque tengo muchos posters de mis grupos favoritos y mi consola porque me encanta jugar con video-juegos.
¿Cómo es/era tu pueblo/región ahora/antes y como era en el pasado? ¿tu opinión de tu pueblo? ¿Qué puedes hacer en tu pueblo? ¿Qué hay en tu pueblo?	Mi pueblo se llama Swindon. Está en el sur-oeste de Inglaterra. Creo que mi pueblo es muy industrial y poco bonito. En el centro hay muchas tiendas de ropa donde se puede ir de compras durante el fin de semana. También hay buenas instalaciones si te gusta hacer deporte. Hay muchos polideportivos donde se puede ir al gimnasio, hacer musculación y hacer deportes de equipo. Antes el barrio era más bonito que ahora. Antes había muchas granjas y había mucho campo pero ahora hay más edificios, más industria y más contaminación del aire. Antes no había tanta contaminación del aire o basura en las calles pero ahora hay más basura y contaminación. Lo que me gusta/me chifla/me mola de mi barrio es que es/hay…

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Imperfect Tense *(Past, ongoing actions, descriptions, 'used to' or 'was doing')*	**-ar** -aba, -abas, -aba, -ábamos, - abais, -aban **-er and –ir** -ía, -ías, -ía, -íamos, - íais, -ían
Future Tense ('will…')	**All verb groups:** -é, -ás, -á, -emos, -éis, -án *With this tense, do NOT take the verb ending away but ADD it on to the infinitive.*

GCSE Unit 6 SPANISH Knowledge organiser.
Topic Social Issues

What we are learning this term:

A. Talking about different ways of volunteering
B. Talking about charities and voluntary work
C. Talking about healthy eating
D. Talking about healthy and unhealthy lifestyles
E. Listening for different tenses

6 Key Words for this term

1. un voluntario/a
2. ecologista
3. los sin techo
4. comedor social
5. banco de alimentos
6. quiero

6.1G ¿Quieres ser voluntario/a?

arreglar	to tidy, to fix, to arrange
ayudar (a)	to help (to)
el banco de alimentos	food bank
charlar	to chat
el comedor social	soup kitchen
el concurso	competition
cultivar	to grow, cultivate
disfrutar	to enjoy
ecologista	environmental
la gente mayor	old people
hogar	home
limpiar	to clean
marcar (un gol)	to score (a goal)
necesitado	needed, required
los necesitados	the needy
la organización benéfica	charitable organisation, charity
participar (en)	to take part (in)
pasarlo bien	to have a good time
proteger	to protect
la residencia de ancianos	old people's home
los "sin techo"	the homeless
el Tercer Mundo	the Third World
la tienda con fines benéficos /tienda solidaria	charity shop
el/la voluntario/a	volunteer

6.1F Me gustaría ayudar

agradecer	to thank
aprender	to learn
el asombro	amazement, surprise
contar (que)	to tell, to relate
el curso	school year, course
los/las demás	the others, the rest
esperar	to wait for, to hope, to expect
formar parte	to be part (of)
hacer la cama	to make the bed
el centro de menores tutelados	children's home
el idioma	language
inútil	uselessel
propósito	aim, purpose, objective
repartir	to deliver, to hand out
tener sueño	to be sleepy
la tienda solidaria	charity shop
útil	useful

6.2G ¿Comes bien?

acostarse	to go to bed
las bebidas alcohólicas	alcoholic drinks
las bebidas azucaradas	sugary drinks
borracho/a	drunk
el dolor	pain, ache
emborracharse	to get drunk
evitar	to avoid
glotón	greedy
la grasa	fat
grasiento/a	fatty, greasy
intentar (+ infinitive)	to try to
el ladrón	thief, robber
malsano	unhealthy
musulmán	Muslim
poco sano	not healthy
la ración	portion
saludable	healthy
sano	healthy

Key Verbs

Ayudar To help	Ir To go	Soportar To stand	Hacer – to do/make	Limpiar To clean
Ayudo I help	Voy I go	Soporto I can stand	Hago I do	Limpio I clean
Ayudas You help	Vas You go	Soportas You can stand	Haces You do	Limpias You clean
Ayuda He/she helps	Va s/he goes	Soporta He/she can stand	Hace s/he does	Limpia He/she cleans
Ayudamos We help	Vamos They go	Soportamos W can stand	Hacemos We do	Limpiamos We clean
Ayudan They help	Van They go	Soportan They can stand	Hacen They do	Limpian They clean

6.1H La importancia de hacer obras benéficas

andar	to walk
el bolsillo	pocket
contribuir	to contribute
dar asco	to nauseate
el dibujo	drawing
donar	to donate
en vías de extinción	threatened (threatened with extinction)
escaso/a	scarce
la exposición	exhibition
el ganador	winner
ganar	to win
gastar	to spend
las instalaciones	facilities
el medio ambiente	environment
las obras benéficas	charity, charitable works
la pérdida	loss
perteneciente a	belonging to
el/la político/a	politician
los recursos	resources
seropositivo/a	HIV positive
el sida	AIDS
temer	to fear

6.2H ¿Qué opinas?

aguantar	to put up with, to bear
asqueroso/a	disgusting
ataque cardíaco	heart attack
aumentar	to increase
el botellón	drinking party in the street
cada vez más	more and more
el cerebro	brain
el consumo	consumption
el corazón	heart
cuanto antes	as soon as possible
el/la drogadicto/a	drug addict
la edad	age
la encuesta	survey
enfrentar	to face
grave	serious
hacer daño a	to injure, to harm
el hígado	liver
nocivo/a	harmful
participar (en)	to take part (in)
pedir	to ask (for), to ask (someone to do something)
los primeros auxilios	first aid
prohibir	to prohibit, to forbid
provocar	to cause, to provoke
el pulmón	lung
reducir	to reduce
síndrome de abstinencia	withdrawal symptoms
el sobrepeso	excess weight, obesity
subir	to go up
el tabaquismo	addiction to tobacco
la venta	sale

GCSE Unit 6 SPANISH Knowledge organiser. Topic Social Issues

Translation Practice. G – blue F – orange H - Green	
Trabajo _____ voluntario	I work **as** a volunteer
_____ comida a los clients	**I serve** food to the customers
Pienso _____ en el instituto	I'm thinking about **working** in the school
_____ ayudar a otra gente	**I hope** to help other people
_____ muchas horas el fin de semana	**I work** many hours on the weekend
Pienso que _____ a otra gente es muy importante	I think that **helping** other people is very important
_____ ser voluntario/a	**I'd like** to be a volunteer
_____ ayudar	**I would like** to help
Quisiera _____ las comidas	I'd like **to prepare** the meals
Me gustaría _____fondos	I'd like to **raise** funds
_____ en un hospital	**I used to help** in a hospital
_____ el trabajo un poco difícil	**I find** the work a little difficult
No _____ hacer nada	I don't **want** to do anything
_____ imposible hacer todo ese trabajo	**It would be** impossible to do all that work
¿Qué _____ tú?	What **would you do**?
_____ de estudiar por voluntar	**I stopped** studying to volunteer
A mi _____ le encanta voluntar	My **boyfriend** loves volunteering
No _____nada	I **wouldn't give** anything
No _____ el tiempo	**I wouldn't have** the time

Key Questions: Answer the following in your own words. Use these model answers	
¿llevas una vida sana? ¿Comes demasiada comida rápida?	Pienso que llevo una vida sana. Todos los días como un poco de fruta y bebo agua que es sano aunque de vez en cuando como las patatas fritas que son grasientas y malsanas. Solo como la comida rápida a menudo porque lo que no me gusta es la comida grasienta. No fumo y nunca voy a fumar. Es asqueroso pero mi padre fuma. Hago también mucho ejercicio. Ayer comí una ensalada que fue muy sana y hice ciclismo y deporte en colegio.
¿Cómo te mantienes en forma? ¿te acuestas tarde? ¿haces ejercicio?	Creo que como suficiente fruta y verdura porque como frutas y verduras todos los días. Mi fruta favorita es la manzana porque es dulce y fácil a comer, aunque como bastante comida rápida también. Ayer para la cena comí dos manzanas y un plátano. ¡Qué sano! Cuando tengo calor bebo mucha coca light con hielo sin embargo los gaseosas/las bebidas azucaradas no son muy sanas. Cuando tengo frio bebo chocolate caliente con mucha leche que es delicioso. Ayer bebí demasiado coca light Normalmente hago bastante ejercicio, que es muy sano. Todos los días voy a pie al colegio y los fines de semana hago ciclismo con mis amigos en el campo que es entretenido y bueno para el cuerpo/la salud. No me acuesto tarde durante la semana. Me acuesto a las diez pero los fines de semana me acuesto a los doce de la noche porque veo películas y videos de Youtube en mi móvil. Ayer me acosté a las once.
¿Qué comes para el desayuno, la cena, tu almuerzo? ¿es sano?	Para el desayuno, como normalmente los cereales que son deliciosos con zumo de naranja. Para la cena como normalmente carne con patatas y verduras con mi familia en casa que es un poco sano. Para mi almuerzo, como un bocadillo con jamón y queso en el colegio con agua o coca. Ayer desayuné … cené …comí para mi almuerzo …
¿Crees que es necesario llevar una vida sana/es necesario para los jóvenes llevar una vida sana?	Creo que es muy importante llevar una vida sana/Creo que es muy importante para los jóvenes llevar una vida sana. Es importante llevar una vida sana para ayudar con el trabajo en el colegio, para mantenerse en forma, para no ser gordo, para tener un buen aspecto físico, para mantener una buena salud, porque ayuda con tus estudios

Key Grammar	
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Perfect Tense *('have done…')*	Formed with the verb '**haber**': he, has, ha, hemos, habéis, han + past participle: -ar: **-ado** -er/ir: **-ido** e.g. *He estudiado = I have studied*

GCSE Unit 7 SPANISH Knowledge organiser.
Topic Global Issues

What we are learning this term:

A. Talking about reusing things, reducing waste and recycling
B. Talking about ways of protecting the environment
C. Talking about poverty
D. Talking about homelessness

6 Key Words for this term

1. la libertad
2. pensamientos
3. asistir a
4. el destrozo
5. violento/a
6. la culpa

7.1G Reutilizar, reducir, reciclar

ahorrar	to save
la basura	rubbish
la bolsa de plástico	plastic bag
el cartón	cardboard
cerrar	to shut, to close,to turn off (tap)
el contenedor	container
en vez de	instead of
intentar	to try to
la lata	tin, can
el malgasto	waste
el papel (reciclado)	(recycled) paper
la papelera	wastepaper basket
la pila	battery
el plástico	plastic
ponerse	to put on (clothes)
los productos químicos	chemicals, chemical products
el proyecto	project
recargable	rechargeable
reciclar	to recycle
reutilizar	to reuse
la Tierra	Earth
tirar	to pull, to throw away
tratar de	to try to
el vidrio	glass

7.1F Protegiendo el medio ambiente

la basura	rubbish
la bombilla (de bajo consumo)	(low-energy) light bulb
el combustible	fuel
combatir	to fight, to combat
la contaminación atmosférica	air pollution
desaparecer	to disappear
el desastre	disaster
desconectar	to disconnect, to unplug, switch off
deshacer	to undo
los desperdicios	rubbish, refuse, waste
la especie	species
incluso	even
inquietante	worrying
luchar	to struggle, fight
la medida	measure, means
medioambiental	environmental
el motor	engine
los residuos	refuse, waste, rubbish
salvar	to save

7.2G Los necesitados

a favor (de)	in favour (of)
la alimentación	feeding, nourishment,food
la asistencia médica	medical care
asistir a	to attend
buscar	to look for
contribuir	to contribute
la creencia	belief
la culpa	blame, fault
la enfermedad	illness
en contra	against
estar dispuesto/a a	to be prepared to, to be ready to
faltar	to be lacking, to be missing
fresco	fresh
hace(n) falta	to be necessary, to need
la libertad (de pensamiento)	freedom (of thought)
merecer	to deserve
necesitar	to need
perder	to lose
perezoso/a	lazy
querer	to love

Key Verbs

Reciclar To recycle	Ir To go	Apagar To turn off	Hacer – to do/make	Encender To turn on
Reciclo I recycle	Voy I go	Apago I turn off	Hago I do	Enciendo I turn on
Reciclas You recycle	Vas You go	Apagas You turn off	Haces You do	Enciendas You turn on
Recicla Sh/e recycles	Va s/he goes	Apaga He/she turns off	Hace s/he does	Encienda He/she turns on
Reciclamos We recycle	Vamos They go	Apagamos We turn off	Hacemos We do	Encendemos We turn on
Reciclan They recycle	Van They go	Apagan They turn off	Hacen They do	Enciendan They turn on

7.2F Los "sin techo"

el destrozo	damage, destruction
escoger	to choose
la falta	lack
formar parte de	to be part of
el/la gamberro/a	hooligan, lout, troublemaker
maltratar	to mistreat, to ill-treat
los niños de la calle	street children
la ONG (organización no gubernamental)	NGO (non-governmental organisation)
la pobreza	poverty
recoger	to pick up
robar	to steal, rob
el vertedero	rubbish dump, tip
la violencia	violence
violento/a	violent

7.2H Es importante ayudar a los demás

el agua corriente (fem.)	running water
bastar	to be enough
la comisaría	police station
consumir	to consume
la corriente	(electric) current, electricity supply
crear	to create
la criminalidad	crime
cualquier(a)	any
el empleo	job
el/la encargado/a	person in charge
el éxito	success

7.1H Problemas ecológicos

acercarse a	to approach
el agujero	hole
la aldea	(small) village
alejar	to move (something) further away
alejarse de	to move further away from
amenazar	to threaten
arruinar	to ruin
el atasco	traffic jam, hold-up
el ave (marina) (fem.)	(sea) bird
el calentamiento global	global warming
la capa de ozono	ozone layer
el casco	helmet, hull (of ship)
el centenar	about a hundred
la central eléctrica	power station
la circulación	traffic
constituir	to constitute
cortar	to cut, to cut off
el efecto invernadero	greenhouse effect
extender	to spread, to stretch
frenar	to brake, to put a stop to
el humo	smoke
el huracán	hurricane
el incendio	fire
la lluvia	rain
la mancha	stain
la marea negra	oil slick
la muerte	death
el nivel	level
el petrolero	oil tanker
el/la pescador/a	fisherman/fisherwoman

GCSE Unit 7 SPANISH Knowledge organiser. Topic Global Issues

Translation Practice. G – blue F – orange H - Green	
_____ agua	**I save** water
_____ transporte público	**I use** public transport
Uso pilas _____	I use **rechargeable** batteries
_____ al instituto a pie	**I go** to school by foot
_____ latas	**I recycle** cans
_____ el uso de productos químicos	**I avoid** the use of chemical products
Es necesario tomar _____ urgentes	It's necessary **to take** urgent measures
_____ que luchar	**We have** to fight
_____ que proteger el medio ambiente	**We must** protect the environment
_____ uso bolsas reciclables	I **always** use recyclable bags
_____ reciclar lo mucho que posible	**I try** to recycle as much as possible
No _____ nada	**I don't recycle** anything
_____ ayudar	**I want** to help
Me _____que hay tanta probreza	It **worries** me that there is so much poverty
Me _____ que hay gente sin comida	It **annoys** me that there are people without food
Me _____ de que tu hermana pueda ayudar	I'm **delighted** that your brother can help
Me _____ triste la situación	It **makes** me sad the situation
Nos ____ falta recursos	We are **missing** resources
Me _____ mucho	It **matters** to me a lot

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué haces para ahorrar energía/agua?	Me importa ahorrar energía y agua. Normalmente me ducho en vez de bañarme. Siempre cierro los grifos. Intento no malgastar agua o energía. Me pongo un jersey en vez de ponerla calefacción y solo pongo el lavaplatos cuando el lavaplatos está lleno.
¿Qué cosas reutilizas?/reciclas? / ¿Usas papel reciclado?	Me preocupa el reciclaje. Me importa reutilizar cosas y reducir el malgasto de recursos. Uso pilas recargables y reutilizo bolsas de platico. Reciclo las latas, el papel, y el cartón, el plástico y el vidrio. Siempre separo la basura.
¿Qué deberías hacer para proteger el medio ambiente?	Hay muchas cosas que deberías hacer para proteger el medio ambiente. Deberías apagar las luces, el televisor y el ordenador. Tienes que cerrar las puertas en casa y debes reciclar las latas, las bolsas de plástico y el vidrio. Debes bañarte lo menos posible. Deberías usar el coche lo menos posible.
¿Qué vas a hacer para proteger el medio ambiente?	En el futuro voy a reciclar más. Siempre voy a reciclar las botellas de vidrio y de plástico. Voy a apagar el televisor y el ordenador cuando termino. Voy a ir lo más posible en bicicleta o a pie. Voy a ir en coche lo menos posible.
¿Qué hiciste ayer para proteger el medio ambiente?	Ayer reciclé la basura en casa. Ayer separé la basura en casa para mis padres. Ayer fui a colegio a pie en vez de ir en autobús/en coche. Ayer cerré las puertas y las ventanas en casa para conservar el calor en casa.
¿Qué es el problema del planeta que te preocupa más?	Lo que más me preocupa es la deforestación/el problema del tráfico/la sequía/las mareas negras/la contaminación del aire porque es importante evitar el cambio climático/porque causa huracanes/sequias/el calentamiento global/los incendios forestales/las enfermedades de los pulmones/afecta la flora y la fauna/ los animales/los seres humanos/amenaza el planeta//amenaza la vida humana/la vida de los animales.

Key Grammar	
Future Tense ('will…')	**All verb groups:** -é, -ás, -á, -emos, -éis, -án *With this tense, do NOT take the verb ending away but ADD it on to the infinitive.*
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

GCSE Unit 8 SPANISH Knowledge organiser.
Topic Holidays and Travel

What we are learning this term:

A. Talking about travelling to holiday destinations
B. Talking about the weather
C. Talking about holiday accommodation
D. Talking about the regions of Spain
E. Understanding tourist leaflets and websites

6 Key Words for this term

1. alojarse
2. veranear
3. la pensión
4. vacaciones
5. un folleto
6. el AVE

8.1G ¡Me voy de vacaciones!

el aire acondicionado air conditioning
el andén platform
el asiento seat
el autocar coach
el AVE (tren de alta velocidad) high-speed train
el avión plane
barato/a cheap
el barco boat
la bici(cleta) bike, bicycle
el coche car
la consigna left-luggage office
el crucero cruise
desde luego of course
echar de menos to miss
Escocia Scotland
estrecho/a narrow
el equipaje luggage
el ferrocarril railway
el invierno winter
la maleta suitcase
el metro underground
no fumador non smoking
el otoño autumn
la primavera spring
la sala de espera waiting room
Sudamérica South America
el tranvía tram
las vacaciones holidays
el verano summer
viajar to travel
el viaje journey

8.1F ¿Dónde te alojas?

el abrebotellas bottle-opener
el abrelatas tin-opener
el aeropuerto airport
a la derecha on the right
a la izquierda on the left
el albergue juvenil youth hostel
Alojarse to stay (in a hotel)
el bañador swimming costume
la cama de matrimonio double bed
camping campsite, camping
la estación de servicio petrol station
la estrella star
fatal awful, terrible
el folleto leaflet
la gasolina (sin plomo) (unleaded) petrol
el guía / la guía guide (person)
la guía guidebook
la habitación (doble/ (double/single) room individual)
la llave key
mojarse to get wet
la oficina de turismo tourist office
el papel higiénico toilet paper
el parador state-owned hotel (in Spain)
el pasaporte passport
la pensión boarding house, B & B
ponerse en camino to set off
por desgracia unfortunately
la recepción reception
la reserva reservation
el saco de dormir sleeping bag
los servicios toilets
la tarjeta de embarque boarding card
la tienda (de campaña) tent
la taquilla ticket office

8.2G ¿En qué región vives?

el desempleo unemployment
la diversión entertainment
muy poblado crowded
nacer to be born
Nací I was born
nació he/she was born
el país country
Pescar to fish
el río river
la sierra mountain range
tanto so much, so many

Key Verbs

Quedarse To stay	Ir To go	Veranear To summer holiday	Hacer – to do/make	Volar To fly
Me quedo I stay	Voy I go	Veraneo I summer holiday	Hago I do	Vuelo I fly
Te quedas You stay	Vas You go	Veraneas You summer hol	Haces You do	Vuelas You fly
Se queda He/she/it stays	Va s/he goes	Veranea He/she summer hol	Hace s/he does	Vuela He/she/ it flys
Nos quedamos We stay	Vamos They go	Veraneamos We summer hol	Hacemos We do	Volamos We fly
Se quedan They stay	Van They go	Veranean They summer hol	Hacen They do	Vuelan They fly

8.2F Un folleto turístico

abrir to open
abierto/a open
callado/a quiet, reserved
cargar to load
cerrar to close, shut
la cocina cuisine, cooking
conocer to know (a person /a place)
el cultivo crop
entero/a entire, whole
gruñón/oña grumpy
ir de paseo to go for a walk
la mina mine
el monasterio monastery
el monte hill, mountain
la oveja sheep
Pintoresco picturesque
recomendar to recommend
el recuerdo memory, reminder,souvenir
la refinería (de petróleo) (oil) refinery
la sombrilla sunshade, parasol
el taller workshop
tranquilo/a peaceful
la vaca cow
el valle valley
el/la visitante visitor

8.2H Describiendo tu región

acostumbrado/a accustomed to, used (adj) to
la barca pesquera fishing boat
casero/a home-made
la cita amorosa date (with someone)
el clima climate

8.1H ¿Qué hiciste y qué te gustaría hacer durante las vacaciones?

aburrirse to get bored
acabar de (+ infinitive) to have just (done something)
broncearse to get a tan
coger to catch, to take
el crucero cruise
descansar to rest
el esquí acuático water skiing
extranjero/a foreign
el extranjero (en el __, abroad al__)
Francia France
genial brilliant, great
Grecia Greece
la insolación sunstroke
la isla island
las Islas Canarias Canary Islands
a mediados de in the middle of (time)
el Mediterráneo Mediterranean
ocupado/a busy, engaged
el oro gold
la plata silver
regresar to return
relajarse to relax
la sombrilla sunshade, parasol
el vestuario changing room, cloakroom
la vida nocturna night life
volver to return
el vuelo flight
colocar to place, to put
la empresa company, firm
la época era, age, time

GCSE Unit 8 SPANISH Knowledge organiser. Topic Holidays and Travel

Translation Practice. G – blue F – orange H - Green	
¿Con quién _____?	Who do **you go** with?
Vamos a ir en _____	We are going to go by **coach**
Voy a _____ en avión	I'm going **to travel** by plane
_____ ir en barco	**I want** to go by boat
Me gusta _____ en coche	I like **going** by car
Voy con mis ____ en bici	I go with my **friends** by bike
Después de _____	After **arriving…**
_____ de comer voy a nadar	**Before** eating I'm going to swim
¿A dónde _____ el año pasado?	Where did **you go** last year?
Me _____en…	I **stayed** in…
Está _____ en el sur	It's **situated** in the south
Las casas están _____ blancas	The houses are **painted** white
La región está _____ por unos ríos	The region is **crossed** by some rivers
Cuando ____ pequeño/a…	When I **was** younger…
____ he ido a Francia.	I've **already** been to France.
El próximo verano _____ a Chipre	Next summer **I will go** to Cyprus
El pueblo ____ muy tranquilo	The town **was** very quiet
¿Dónde te _____?	Where did you **stay?**
Nunca _____ ido.	**We have** never been.

Key Questions: Answer the following in your own words. Use these model answers	
. ¿Dónde vas de vacaciones normalmente, con quien, cuando, como viajas, el tiempo, qué haces?	Normalmente en verano voy de vacaciones a Barcelona en España. suelo ir a ... / En general voy con ... (pero el año pasado fui con ... / en el futuro me encantaría ir con ... De vez en cuando hace ... weather .. pero a menudo hace ... weather Todos los años nos quedamos/me alojo en ... accomdation - Me parece que (accommodation) (describe opinion) es ... opinion pero preferería alojarme en ... where you would like to stay Viajamos en ... transport (opinion?), Durante las vacaciones hago ... nado ... practico ... tomo el sol ... etc
¿Donde fuiste el año pasado de vacaciones? ¿Cómo fueron, Qué hiciste? Comiste?	El año pasado fui a Málaga en España y fui con mis padres. Viajamos en tren y en avión. No me gustó el viaje porque fue demasiado largo y no fue relajante. Tuve que esperar demasiado tiempo en el aeropuerto. Durante las vacaciones nadé en el mar, tomé el sol en la playa y mis hermanas menores jugaron mucho en el agua. Probé platos típicos de la región de Málaga pero no me gustaron los mariscos o las gambas. Sobre todo, me encantaron mis vacaciones porque hizo mucho sol y España es mejor que Inglaterra. nadé … hice … jugué … fui a .. descansé… me relajé… me alojé … ¡Qué bueno!
¿Qué tipo de vacaciones prefieres?	Prefiero las vacaciones en las montañas/en el campo/en una ciudad/de verano/de invierno porque en verano suele hacer calor y puedo relajarme en la playa/en invierno porque me encanta el frio y me lo paso bomba celebrar las navidades con mi familia. ¡Que divertido!
¿Qué hacías en vacaciones cuando eras joven?	Cuando era joven, iba a Escocia cerca de Edimburgo. Siempre viajábamos en coche. Nos alojábamos en un hotel de lujo. Solía (I used to usually) ir a un restaurante para comer. Comía siempre las patatas fritas y pescado pero mi hermano comía siempre los platos típicos de escocia como el Haggis, que era asqueroso. Qué Asco

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Imperfect Tense *(Past, ongoing actions, descriptions, 'used to' or 'was doing')*	**-ar** -aba, -abas, -aba, -ábamos, - abais, -aban **-er and –ir** -ía, -ías, -ía, -íamos, - íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

GCSE Unit 9 SPANISH Knowledge organiser.
Topic My Studies

What we are learning this term:

A. Giving your opinion about different subjects
B. Talking about your studies
C. Talking about your school life and daily routine
D. Talking about school rules and uniform
E. Translating into English

6 Key Words for this term

1. asignaturas
2. notas
3. aprobar
4. suspender
5. licienciatura
6. elegir

9.1G El instituto y las asignaturas

el arte dramático drama
la asignatura subject
la carrera career, university course
las ciencias science
la clase class
la cocina cooking, food technology
continuar to continue, carry on
los deberes homework
dejar to drop
el dibujo art
difícil difficult, hard
divertido/a fun
la educación física PE
Escoger to choose
el español Spanish
estudiar to study
fácil easy
el francés French
la geografía geography
la historia history
el inglés English
las matemáticas maths
práctico/a practical
próximo/a next
la selección choice
Útil useful

9.1F ¿Cómo ser buen estudiante?

abrir to open
Afectar to affect
el apoyo support
aprender to learn
los apuntes notes
asistir a to attend
la biblioteca library
el/la compañero/a classmate
completar to complete
Consultar to consult
el debate discussion
los deberes homework
el diccionario dictionary
la duda doubt, query
el ejercicio exercise
entender to understand
la escuela school
Esperar to hope, to wait, to expect
el examen, exámenes exam, exams
la excursión trip
faltar a clase to miss lessons
la frase sentence
Intentar to try
interrumpir to interrupt
el instituto school
levantar la mano to raise your hand
la literatura literature
llevar to take, to carry, to wear
mejorar to improve
mirar to look at
el mundo world
necesitar to need
la nota grade
ofrecer to offer
el ordenador computer
organizar to organise
la palabra word
la pantalla screen
participar to take part
pedir to ask for, to request
pegado/a a glued to
perder to lose, miss
la pizarra blackboard
la pizarra interactiva smartboard
Preguntar to ask
el/la profesor(a) teacher
el progreso progress
la prueba test
Repasar to revise

Key Verbs

Aprobar To pass	Elegir To choose	Suspender To fail	Estudiar To study	Pensar To think
Apruebo I pass	Eligo I choose	Suspendo I fail	Estudio I study	Pienso I think
Apruebas You pass	Eliges You choose	Suspendes You fail	Estudias You study	Piensas You think
Aprueba He/she/it passes	Elige He/she/it chooses	Suspende He/she/it fails	Estudia He/she/it studies	Piensa He/she/it thinks
Aprobamos We pass	Elegimos We choose	Suspendemos We fail	Estudiamos We study	Pensamos We think
Aprueban They pass	Eligen They choose	Suspenden They fail	Estudian They study	Piensan They think

9.1F ¿Cómo ser buen estudiante?

el repaso revision
responsable responsible
resultar en to end up with, to lead to
saber to know
sacar buenas / malas notas to get good / bad grades
serio/a serious
las tareas homework
el trabajo work, piece of work
la tutoría tutorial
Usar to use
el vocabulario vocabulary

9.1H ¿Qué tal el instituto?

preocupar to worry
la sala de informática IT room
sencillo/a simple
Sentirse to feel
usar to use
el viaje journey
la zona área

9.1H ¿Qué tal el instituto?

el/la alumno/a pupil
antiguo/a old
asustado/a frightened
asustar to frighten
el atasco traffic jam, blockage
atento/a attentive
el aula (fem.) classroom
ayudar to help
buscar to look for
cambiar to change
cansado/a tired
conocer to meet, to get to know
contento/a glad, happy
contestar to answer
el curso school year, course
los deberes homework
deteriorado/a dilapidated, shabby
distinto/a different
la emoción excitement
emocionante exciting
encima on top
encontrar to find
explicar to explain
feo/a ugly
el gimnasio sports hall, gym
hambriento/a hungry
el idioma language
inmenso/a immense
el laboratorio laboratory
largo/a long
mejor better
nervioso/a anxious, nervous
el patio del recreo the school yard, playground
la pregunta question

GCSE Unit 9 SPANISH Knowledge organiser. Topic My studies

Translation Practice. G – blue F – orange H - Green	
Me _____ el francés	I **like** French
La historia es ____ divertida que el inglés	History is **more** fun than English
____ a estudiar las matemáticas	**I am** going to study maths
La literatura es más _____ que el francés	Literature is more **fun** that French
Me encanta dibujo. Voy a _____ en Septiembre	I love art. I'm going to **study it** in September.
No, no _____ elegir esa opción	No, **I don't want** to pick that option
Pienso que las ciencias son muy _____	I think that science is really **useful**
No creo que voy a _____	I don't believe that I'm going to **fail**
_____ informática en la escuela primaria	**I used to study** ICT in primary school
Ayer _____ mis deberes	Yesterday **I did** my homework
La semana pasada _____ con mi profesora	Last week **I spoke** with my teacher
Voy a _____ estudiando tecnología	I'm going to **continue** studying technology
Si necesitas algo, _____ al profesor.	If you need anything **ask** the teacher
_____ mucho estudiar ciencias	**I enjoy** studying science a lot
Ya ____ hablado con el profesor	**I have** already spoken with the teacher
Va a ____ muy interesante	It's going to **be** very interesting
He _____ esta opción	I have **chosen** this option
Quiero _____ mucho	I really want to **do it** a lot
No sé _____ hacer	I don't know **what** to do

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué estudias ahora, que te gustaría estudiar en el futuro, que vas a dejar?	Ahora en el colegio, estudio unas asignaturas obligatorias. Las asignaturas obligatorias son las matemáticas, las ciencias y el ingles. También he elegido estudiar el español, la geografía, la historia, la tecnología, el arte, el dibujo …. La asignatura que me interesa más es …… porque …. La asignatura que me molesta/irrita más es …. porque …
¿Cómo es tu colegio, las reglas, los edificios, las instalaciones?	Mi colegio es un colegio grande que tiene circa ochocientos alumnos. Está en las afueras de Swindon en los barrios de Pinehurst y Penhill. Tenemos una biblioteca nueva, una cantina acogedora, un patio grande … En el colegio no debes comer chicle, no debes acosar, no tienes que gritar, no deberías comportarse mal… En el colegio tienes que comportarse bien, llevar el uniforme, ir al baño solo durante el recreo, llegar al colegio a hora ….
¿Describe tu primer día en tu colegio?	El primer día, estaba un poco nervioso porque me preocupaban los profesores, los otros alumnos, las clases, .. me preocupaba que los profesores serian estrictos, me preocupaban los exámenes, me preocupaba que el colegio sería tan inmenso
Es obligatorio estudiar matemáticas. ¿Crees que es una buena idea? ... ¿Por qué (no)?	Si, en mi opinión me parece una buena idea porque … las matemáticas son muy importantes en el futuro/para un buen trabajo bien pagado/para mi futuro/para ir a una buena universidad/porque las matemáticas se usan en todos los trabajos
En tu opinión, ¿cuáles son las características más importantes de un buen profesor?	En mi opinión, un buen profesor es siempre simpático, nunca malhumorado, es de vez en cuando gracioso, es comprensivo y cariñoso, es siempre alegre y no es nunca antipático
¿Qué cambiarías de tu colegio si tuvieras la oportunidad?	Si tuviera la oportunidad, cambiaría/me gustaría cambiar las reglas. Me gustaría cambiar el uniforme porque me parece que es tan feo, me gustaría cambiar las reglas porque son demasiadas estrictas, me gustaría cambiar unos profesores porque son tan antipáticos

Key Grammar	
Imperfect Tense (Past, ongoing actions, descriptions, 'used to' or 'was doing')	-ar -aba, -abas, -aba, -ábamos, - abais, -aban -er and –ir -ía, -ías, -ía, -íamos, - íais, -ían
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Future Tense ('will…')	**All verb groups:** -é, -ás, -á, -emos, -éis, -án *With this tense, do NOT take the verb ending away but ADD it on to the infinitive.*

GCSE Unit 10 SPANISH Knowledge organiser.
Topic Life at School and College

What we are learning this term:

A. Talking about your school and daily routine
B. Talking about school rules and uniform
C. Translating into English
D. Revising 'se debe', 'hay que', 'tener que'
E. Using questions to help your answer
F. Using quantifiers and intensifiers

6 Key Words for this term

1. acabar de
2. actuar
3. la ausencia
4. demostrar
5. las instalaciones
6. el maquillaje

10.1G El día en el instituto

acabar de	to have just done something
actuar	to perform
el aire libre	the open air
aislado/a	isolated
el/la alumno/a	pupil
aprender	to learn
la asignatura	subject
el bachillerato	A-level equivalent
el bocadillo	sandwich
bonito	lovely
campo de deportes	sports field
la clase	class
el/la compañero/a	classmate
corto/a	short
durar	to last
empezar	to start, to begin
el equipo	team, equipment
el estante	shelf
la evaluación	assessment
funcionar	to work, to function
ganar	to win
ir al baño	to go to the bathroom
el juego de mesa	board game
la hora de comer	lunch hour
el laboratorio	laboratory
la obra de teatro	play
la opción	option
la oportunidad	opportunity
pasar la lista	to take the register
el producto químico	chemical

10.1F Las reglas y el uniforme

la agenda	diary, planner
el apellido	surname
el artículo	article
la ausencia	absence
buscar	to look for
el chicle	chewing gum
el daño	harm
dejar	to let, allow
demostrar	to show, demonstrate
el edificio	building
escolar	school (adj.)
firmar	to sign
el individuo	individual
las instalaciones	facilities
el intercambio	exchange
llevar	to take, carry, wear
el maquillaje	make up
los materiales	materials
mientras	while
el nombre	name
la palabra	word
el pasillo	corridor
el pendiente	earring
ponerse en contacto	to get in touch
prohibido	prohibited, banned
la puntualidad	punctuality
la regla	rule
el respeto	respect
sufrir	to suffer
traer	to bring
el trayecto	journey
el uniforme	uniform

Key Verbs

Acabar de To have just finished	Mejorar To improve	Maquillarse To put makeup on oneself	Hacer – to do/make	Ofrecer To offer
Acabo de I have just finished	Mejoro I improve	Me maquillo I put make up on	Hago I do	Ofrezco I offer
Acabas de You have just finished	Mejoras You improve	Te maquillas You put make up on	Haces You do	Ofreces You offer
Acaba de He/she it has just finished	Mejora He/she/ it improves	Se maquila He/she/it puts make up on	Hace s/he does	Ofrece He/she/it offers
Acabamos de We have just finished	Mejoramos We improve	Nos maquillamos We put make up on	Hacemos We do	Ofrecemos We offer
Acaban de They have just finished	Mejoran They improve	Se maquilan They put make up on	Hacen They do	Ofrecen They offer

10.1H Lo bueno y lo malo del instituto

el acoso	bullying
aguantar	to put up with
aislado/a	isolated
alegrar up	to brighten up, to cheer
aprobar	to pass an exam
el aspecto	appearance
la calefacción	heating
el castigo	punishment
el comportamiento	behaviour
la conducta	behaviour
corregir	to mark, to correct
cumplir con	to fulfil
en cuanto a	as regards
encenderse	to be turned on
enfadado/a	angry
enseñar	to teach, show
el equipo	equipment
la espalda	back
el estante	shelf
la explicación	explanation

10.1H Lo Bueno y lo malo del instituto

travieso/a	naughty, badly behaved
el trimestre	term
ya que	since, as
el fracaso	failure
golpear	to hit
hace falta	it is necessary
incómodo/a	uncomfortable
la intimidación	bullying
la pizarra	digital smartboard
mejorar	to improve
molestar	to disturb, to annoy
el ocio	leisure
la pared	wall
recordar	to remember
el repaso	revision
sucio/a	dirty
tardar	to take time, to delay

GCSE Unit 10 SPANISH Knowledge organiser. Topic Life at School and College

Translation Practice. G – blue F – orange H - Green	
Irene _____ porque estudió muy poco	Irene **failed** because she studied very little
No practicamos _____ atletismo.	We don't practise **much** athletics.
Cuando _____ de clase hay mucha gente	When **we change** class there are too many people
No _____ bastantes ordenadores	**We don't have** enough computers
El instituto está _____ lejos	The school is **too** far away
Hay _____ posibilidades de estudiarlo	There are **few** possibilities to study it
Hay ____ llevar uniform	**You have to** wear a uniform
No _____ usar el móvil	**We cannot** use mobile phones
No _____ fumar	You **must** not smoke
Me gustaría _____ para ir al colegio	I would like **to put makeup on** to go to school
Soy educado y _____	I am polite and **considerate**
Odio _____ los deberes en casa	I hate **doing** homework at home
Hay muchas _____ entre los dos	There are many **differences** between the two
Las aulas _____ ser más grandes	The classrooms **ought** to be bigger
Debería _____ más ordenadores	There ought **to be** more computers
Deberían _____ una piscina	They ought **to build** a swimming pool
He _____ mis estudios	I have **finished** my studies
Han _____ a casa	They have **returned** home

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué crees que es lo peor / lo mejor aspecto del instituto?	El mejor aspecto del colegio es … porque … El peor aspecto del colegio es … porque …
¿Qué cambiarías de tu colegio si tuvieras la oportunidad?	Si tuviera la oportunidad, cambiaría/me gustaría cambiar las reglas. Me gustaría cambiar el uniforme porque me parece que es tan feo, me gustaría cambiar las reglas porque son demasiadas estrictas, me gustaría cambiar unos profesores porque son tan antipáticos
En tu opinión, ¿cuáles son las características más importantes de un buen profesor?	En mi opinión, un buen profesor es siempre simpático, nunca malhumorado, es de vez en cuando gracioso, es comprensivo y cariñoso, es siempre alegre y no es nunca antipático
¿Cómo es tu colegio, las reglas, los edificios, las instalaciones?	Mi colegio es un colegio grande que tiene circa ochocientos alumnos. Está en las afueras de Swindon en los barrios de Pinehurst y Penhill. Tenemos una biblioteca nueva, una cantina acogedora, un patio grande … En el colegio no debes comer chicle, no debes acosar, no tienes que gritar, no deberías comportarse mal… En el colegio tienes que comportarse bien, llevar el uniforme, ir al baño solo durante el recreo, llegar al colegio a hora ….

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father
Perfect Tense *('have done…')* Formed with the verb '**haber**':	Formed with the verb '**haber**': he, has, ha, hemos, habéis, han + past participle: -ar: **-ado** -er/ir: **-ido** e.g. *He estudiado = I have studied*

GCSE Unit 11 SPANISH Knowledge organiser.
Topic Education Post - 16

What we are learning this term:

A. Talking about options at 16
B. Discussing choices at 18: work or university?
C. Talking about different jobs
D. Looking for and applying for jobs
E. Using a variety of tenses
F. Using 'quisiera'

6 Key Words for this term

1. porcentaje
2. por ciento
3. la ama de casa
4. la empresa
5. el/la jefe/a
6. cuidar a

11.1G ¿Qué voy a hacer?

a tiempo completo	full time
a tiempo parcial	part time
el/la alumno/a	pupil
aprender	to learn
el aprendizaje	apprenticeship
aprobar	to pass
la asignatura	subject
avanzado/a	advanced
el beneficio	benefit
buscar	to look for
la carrera (universitaria),(university) course, career	
carrera profesional	
conseguir	to get, to manage, to achieve
el consejo	advice
continuar	to continue
dejar	to leave
el dinero	money
encontrar	to find
esperar	to wait for, to hope, expect
los estudios	studies
el examen	exam
la experiencia	experience
la experiencia laboral	work experience
feo/a	ugly
la informática	information technology, IT
mejor	better, best
mientras	while
la nota	grade, mark, result
la opción	option
la oportunidad	opportunity
quedar	to stay
el resultado	result
sacar buenas / malas notas	to get good / to get bad grades
seguir + gerund	to carry on …ing

11.1F ¿Trabajar o estudiar?

considerar	to consider
demostrar	to show, demonstrate
la desventaja	disadvantage
estar harto/a de	to be fed up with
estar obsesionado/a con	to be obsessed with
furioso/a	furious
ganar	to earn, to win, to gain
la habilidad	skill, ability
horroroso/a	dreadful
imaginar	to imagine
inútil	useless
mundo	world
necesitar	to need
pedir	to ask for
peor	worse, worst
por otra parte	on the other hand
la promoción	promotion
relacionarse con	to relate to, to get on with
repasar	to revise
el repaso	revision
seguro/a	sure
la sociedad	society
todavía	still
vale la pena	it's worth it, it's worthwhile

Key Verbs

Aprender To learn	Ir To go	Querer To want	Preparar To prepare	Dar To give
Aprendo I learn	Voy I go	Quiero I want	Preparo I prepare	Doy I give
Aprendes You learn	Vas You go	Quieres You want	Preparas You prepare	Das You give
Aprende He/she/it learns	Va s/he goes	Quiere He/she/ it wants	Prepara He/she/it prepares	Da He/she/it gives
Aprendemos We learn	Vamos They go	Queremos We want	Preparamos We prepare	Damos We give
Aprenden They learn	Van They go	Quieren They want	Preparan They prepare	Dan They give

11.1H ¿Vale la pena ir a la universidad?

a solas	on one's own
acabar de + infinitive	to have just
adecuado/a	adequate, decent
aislado/a	isolated
al final de	at the end of
apetecer	to appeal
aprender	to learn
así que	so
avanzado/a	advanced
el beneficio	benefit
bien pagado/a	well paid
la calidad	quality
la carrera (universitaria)	university course, career
claro	of course
conseguir	to get, to manage, to achieve
el consejo	advice
deber	to owe
devolver	to give back, to pay back
disfrutar	to enjoy
la edad	age
escoger	to choose
esperar	to wait for, to hope, to expect
estar a punto de	to be about to
la experiencia laboral	work experience
feo/a	ugly
el folleto	leaflet
el/la graduado/a	graduate
hacerse miembro	to become a member
inquietar	to worry, to concern
lejos de	far from
mejor	better, best

11.1H ¿Vale la pena ir a la universidad?

el mundo laboral	world of work
ofrecer	to offer
olvidarse	to forget
pedir prestado	to borrow
poco a poco	bit by bit
preocupar	to worry, to be concerned
recoger	to pick up, to collect
la residencia de estudiantes	student residence
el resultado	result
seguir	to follow
seguir + gerund	to carry on …ing
tan pronto como	as soon as
el título (university)	degree
tomar un año libre	to take a year out
la ventaja	advantage

GCSE Unit 11 SPANISH Knowledge organiser. Topic Education Post 16

Translation Practice. G – blue F – orange H - Green	
Quiero _____ estudiando	I want **to carry on** studying
Quiero _____ más dinero	I want **to earn** more money
_____ que seguir estudiando	**I will have to** carry on studying
Si _____ buenas notas, iré a la universidad	If **I get** good grades I will go to the university
Voy a _____ el instituto	I am going **to quit** school
No ____ que hacer	I don't **know** what to do
He _____ que no quiero trabajar	I have **decided** that I don't want to work
Creo que _____ mejor estudiar	I believe that **it will be** better to study
Quiero buscar un _____	I want to find an **apprenticeship**
La _____ de mi plan es que…	The **advantage** to my plan is that…
Hemos _____ otro plan	We have **considered** another plan
_____ un titulo universitario	**I need** a degree
Mi madre es _____	My mum is **a dentist**
_____ contento cuando termine mis estudios	**I will be** content when I finish my studies
_____ la decision tan pronto como tenga mis resultados	**I will make** the decision as soon as I have my results
Espero _____ una casa	I hope to **buy myself** a house
Se puede _____ de todo lo que hay	You can **enjoy** everything there is
_____ dejado de estudiar	**She had** quit studying

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué vas a hacer/estudiar/trabajar cuando termines en el colegio/ si sacas buenas notas?	Si saco buenas notas/en el futuro .. …voy a estudiar/me gustaría estudiar …. en la universidad porque será muy útil para mi carrera, porque quiero trabajar en el aire libre/porque siempre me encanta trabajar con niños … En el futuro, voy a trabajar como (job) porque …
¿Qué son tus planes para el futuro? - ¿Cúal es la ventaja de este plan?	Las desventajas de mi trabajo preferido son que… Las ventajas de mi trabajo preferido son que…
¿Qué son las ventajas y desventajas de ir a la universidad?	Las ventajas/desventajas son que .. es cara pagar los gastos para la universidad, el precio es muy caro, tienes que prestar dinero del gobierno, tienes que trabajar y estudiar mucho, tienes que esforzarse mucho, es inquietante no vivir con los padres, y vivir con otra gente, va a ser fenomenal encontrar nuevos amigos …
¿Qué trabajo quieres hacer? Por qué te interesa este trabajo? Qué son las ventajas y desventajas de hacer este trabajo?	En el futuro, quiero ser (job). Quiero hacer este trabajo porque… me interesa mucho / puedo ganar mucho dinero / tengo la oportunidad de trabajar en equipos / prefiero trabajar en una oficina/ prefiero trabajar en el aire libre/ quiero un trabajo donde puedo utilizar mis idiomas / quiero un trabajo donde puedo mejorar mi confianza con el público.
¿Cuáles son los aspectos positivos de encontrar un trabajo a los dieciocho años?	…Las (des)ventajas de empezar a trabajar a los 18 años son que… …No tienes la oportunidad de ir a la universidad …No tienes tantas oportunidades de ganar tanto dinero …Puedes empezar a ganar dinero más joven que es importante para el futuro …Puedes aprender una carrera mientras estás haciendo el trabajo – no tienes que estudiar más

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

GCSE Unit 12 SPANISH Knowledge organiser.
Topic Jobs, Career choices and Ambitions

What we are learning this term:

A. Talking about different jobs
B. Looking for and applying for jobs
C. Recognising percentages and fractions
D. Learning useful phrases
E. Using a variety of tenses

6 Key Words for this term

1. buscar
2. una entrevista
3. anuncios
4. empezar
5. ganar
6. desafiante

12.1G Los trabajos

el ama de casa (fem.)	housewife
el banco	bank
el/la cajero/a	cashier
el/la cliente/a	customer
el cocinero/a	cook
estar en paro	to be unemployed
el ingeniero/a	engineer
el jardinero/a	gardener
limpiar	to clean
la mitad	half
la oficina	office
la peluquería	hairdresser's
el peluquero/a	hairdresser
el/la policía	police officer
por ciento	per cent
el/la porcentaje	percentage
quisiera	I would like
resolver	to solve, resolve
salvar	to save
temporal	temporary
el/la veterinario/a	vet
la vida	life

12.1F Buscar trabajo

a principios de	at the beginning of
el/la administrativo/a	clerk, office worker
ambicioso/a	ambitious
anciano/a	elderly
animado/a	lively
arreglar	to sort, fix, arrange
el aspecto	appearance, aspect
atender a	to attend to
la caja	till, check-out
el camping	campsite
el carnicero/a	butcher
el carpintero/a	carpenter
la carta	letter
los conocimientos	knowledge
el correo electrónico	email
cortés	polite, courteous
cuidar a	to care for, look after
el/la dependiente/a	shop assistant
el detalle	detail
dominar + language	to be fluent in
el/la electricista	electrician
el empleado/a	employee
la empresa	company, firm
en seguida	straightaway
la energía	energy
fiable	reliable
la gente	people
el/la hombre / mujer de negocios	businessman / business woman
el juego	game
el/la maestro/a	primary school teacher
mayor	older
organizado/a	organised
paciente	patient
la panadería	bakery
el panadero/a	baker
práctico/a	practical
el problema	problem
el/la recepcionista	receptionist
servir	to serve
sincero/a	honest
el sitio web	website
el sobre	envelope
sueldo	wage
trabajador/a	hard-working
el traductor/a	translator
el trimestre	term
la variedad	variety

Key Verbs

Tener To have	Ir To go	Buscar To look for	Hacer – to do/make	Encontrar To find
Tengo I have	Voy I go	Busco I'm looking for	Hago I do	Encuentro I find
Tienes You have	Vas You go	Buscas You're looking for	Haces You do	Encuentras You find
Tiene He/she/it has	Va s/he goes	Busca He/she/it is looking	Hace s/he does	Encuentra He/she/it finds
Tenemos We have	Vamos They go	Buscamos We're looking for	Hacemos We do	Encontramos We find
Tienen They have	Van They go	Buscan They're looking	Hacen They do	Encuentran They find

12.1H El trabajo ideal

el/la abogado/a	lawyer
el/la albañil	builder, bricklayer
el/la amo/a de casa	house husband/housewife
ascender	to move up
el/la azafato/a	flight attendant
el/la cajero/a	cashier
el/la camionero/a	lorry driver
la capacidad	ability, capacity
el/la cartero/a	postal worker
el/la cliente/a	customer
la compañía aérea	airline
compartir	to share
el/la contable	accountant
la cuenta	account
diseñar	to design
fijo/a	fixed, permanent
físico/a	physical
la formación	training
funcionar	to function
el/la gerente	manager
el/la granjero/a	farmer
las horas de trabajo flexibles	flexitime, flexible working hours
el/la jardinero/a	gardener
el/la jefe/jefa	boss
limpiar	to clean
la lluvia	rain
mejorar	to improve
la peluquería	hairdresser's
el/la peluquero/a	hairdresser
la perspectiva	prospect
el proyecto	project
el rincón	corner

12.1H El trabajo ideal

temporal	temporary
utilizar	to use
el viento	wind
ya que	as, since

GCSE Unit 12 SPANISH Knowledge organiser. Topic Jobs, Career choices and Ambitions

Translation Practice. G – blue F – orange H - Green	
Me gustaría _____ policia	I would like **to be** a policeman
_____ trabajar en una tienda	**I would like** to work in a shop
Quisiera ser _____	I would like to be **a nurse**
Me gustaría _____ con animales	I would like **to work** with animals
Mi madre _____ profesora	My mum **is** a teacher
Mi hermana _____ en el hospital	My sister **works** in the hospital
Me interesa _____ el trabajo	The job **really** interests me
El trabajo me _____ muchas oportunidades	The job **will offer** me many opportunities
_____ que soy una persona muy trabajadora	**I think** that I am a very hard working person
_____empezar el lunes	**I can** start on Monday
He _____ en una oficina	I have **worked** in an office
_____ ayudado en el colegio	**I have** helped at school
El _____ ideal dominará dos idiomas	The ideal **candidate** will be fluent in 2 languages
_____ un trabajo que me da oportunidades	**I'm looking for** a job that gives me opportunities
_____ trabajar con una empresa que tiene oficinas en el extranjero	**I want** to work with a company that has offices abroad
_____ un trabajo que ofrece buen sueldo	**I need** a job that offers a good salary
_____ con una empresa muy buena	**I used to work** with a really good company
En el futuro _____ con mis padres	In the future **I will work** with my parents

Key Questions: Answer the following in your own words. Use these model answers	
¿Te gustaría trabajar en España? ... ¿Por qué (no)?	…Si/No – (no) me gustaría trabajar en España porque …Seria guay trabajar en un país caloroso …Seria guay trabajar en un país donde puedo utilizar mis idiomas y mi español …Seria chulo porque hay la posibilidad to ganar más dinero trabajando entre dos países …Seria bueno conocer a otra gente y hacer nuevos amigos en el extrajero
A los dieciséis años, ¿crees que es mejor seguir un curso académico o uno de formación profesional?	…Hay ventajas y desventajas de hacer un curso académico y formación profesional …Las ventajas de hacer un curso académico son que… …tienes la oportunidad de ganar más dinero en el futuro …tienes la oportunidad de aprender más habilidades que serán útiles en el futuro De otro lado, las ventajas de hacer formación profesional son que … … puedes aprender mientras haces el trabajo puedes ganar más dinero a una edad joven puedes disfrutar de tus días y tus tardes porque no tienes que estudiar y tienes más dinero puedes ganar más confianza con el público mientras trabajas con otra gente
¿Qué trabajo quieres hacer? Por qué te interesa este trabajo? Qué son las ventajas y desventajas de hacer este trabajo?	En el futuro, quiero ser (job). Quiero hacer este trabajo porque… me interesa mucho / puedo ganar mucho dinero / tengo la oportunidad de trabajar en equipos / prefiero trabajar en una oficina/ prefiero trabajar en el aire libre/ quiero un trabajo donde puedo utilizar mis idiomas / quiero un trabajo donde puedo mejorar mi confianza con el público.

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Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father
Conditional Perfect Tense (the 2 tenses put together) "I would have bought…"	habría, habrías, habría, habríamos, habríais, habrían **+ past participle** *E.g. lo habría comprado pero no tenía tiempo –I would have bought it but I didn't have time*

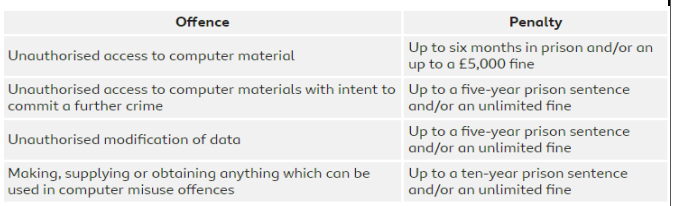
Year 11 Computer Science – Term 4

What we are learning this term:

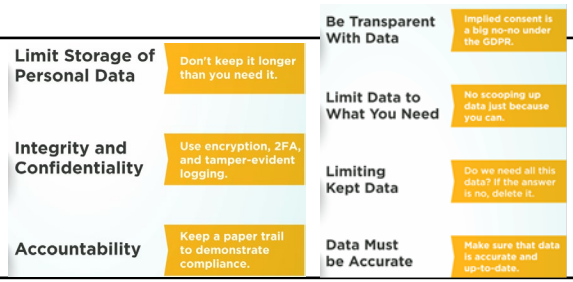
A. Ethical Terms
B. Networking Terms
C. Laws
C. Malware
E. Stages of Software Development

A.	Ethical Terms
E-Waste	Electronic Waste consisting of digital products.
Planned Obsolescence	Producing goods which are designed to become obsolete and require replacement.
Ethical Concerns	Ensuring public safety and the security of data.

B.	Networking Terms
	A network that covers a small area, e.g. a school or office.
	A piece of hardware used in Computer Networks to connect multiple devices.
	A network of personal devices, such as Bluetooth etc.
	A device for connecting multiple networks together.
	A group of two or more computers connected together and communicating with each other.
	A circuit board installed in a computer allowing it to connect to a network.
	A network which spans across a large geographical area. Multiple buildings, national, internet. Etc.

C.	Laws
Computer Misuse Act of 1990.	

Offence	Penalty
Unauthorised access to computer material	Up to six months in prison and/or an up to a £5,000 fine
Unauthorised access to computer materials with intent to commit a further crime	Up to a five-year prison sentence and/or an unlimited fine
Unauthorised modification of data	Up to a five-year prison sentence and/or an unlimited fine
Making, supplying or obtaining anything which can be used in computer misuse offences	Up to a ten-year prison sentence and/or an unlimited fine

Data Protection Act 1998.	Controls how your personal information is used by organisations, businesses or the government. You have the right to find out what information the government and other organisations store about you.
GDPR General Data Protection Regulation.	
Investigatory Powers Bill 2016	Requires companies and internet service providers to store records on emails and browsing histories. It also gives the authority for police and security services to access computers and phones to search for data.
Copyright, Designs and Patents Act	As soon as something is created, it becomes intellectual property and is protected by copyright. In the case of software, the copyright holder can choose to sell and license it (proprietary) or give that right away (open-source).

D.	Malware	Legal? Tick or cross
Adware	Software which causes advertising popups and collects marketing data.	✓
Ransomware	Malware which encrypts a user's files then demands a ransom to decrypt them.	✗
Spyware	Malware which collects information about the user and their activities.	✗
Trojan	Malware which appears legitimate but performs malicious activity when running.	✗
Virus	Malware which replicates itself and damages computer systems and files.	✗

E.	Stages of Software Development
Design	This should be a representation of the algorithm such as in a flowchart or pseudocode.
Implementation	Implementing the designed algorithm in code in order to turn it into a working program/ solution.
Testing	Testing the implemented program for errors. This looks for valid, boundary and erroneous data.
Evaluation	Refining and assessing the implemented program based on testing.

Year 11 Computer Science – Term 4

What we are learning this term:

A. Ethical Terms
B. Networking Terms
C. Laws
C. Malware
E. Stages of Software Development

A.	Ethical Terms
E-Waste	
Planned Obsolescence	
Ethical Concerns	

B.	Networking Terms
	A network that covers a small area, e.g. a school or office.
	A piece of hardware used in Computer Networks to connect multiple devices.
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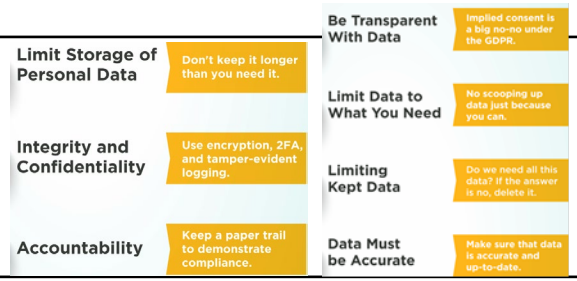
	A device for connecting multiple networks together.
	A group of two or more computers connected together and communicating with each other.
	A circuit board installed in a computer allowing it to connect to a network.
	A network which spans across a large geographical area. Multiple buildings, national, internet. Etc.

C.	Laws
	<table><tr><th>Offence</th><th>Penalty</th></tr><tr><td>Unauthorised access to computer material</td><td>Up to six months in prison and/or an up to a £5,000 fine</td></tr><tr><td>Unauthorised access to computer materials with intent to commit a further crime</td><td>Up to a five-year prison sentence and/or an unlimited fine</td></tr><tr><td>Unauthorised modification of data</td><td>Up to a five-year prison sentence and/or an unlimited fine</td></tr><tr><td>Making, supplying or obtaining anything which can be used in computer misuse offences</td><td>Up to a ten-year prison sentence and/or an unlimited fine</td></tr></table>
	Controls how your personal information is used by organisations, businesses or the government. You have the right to find out what information the government and other organisations store about you.
	
	Requires companies and internet service providers to store records on emails and browsing histories. It also gives the authority for police and security services to access computers and phones to search for data.
	As soon as something is created, it becomes intellectual property and is protected by copyright. In the case of software, the copyright holder can choose to sell and license it (proprietary) or give that right away (open-source).

D.	Malware	Legal? Tick or cross
Adware		
Ransomware		
Spyware		
Trojan		
Virus		

E.	Stages of Software Development
Design	
Implementation	
Testing	
Evaluation	

GCSE Business

Making Operational Decisions (2.3)

Name:

1. Types of Production

There are three main types of production:

Type of Production	Explanation
Job Production	Job production is one-off production for a one-off order. It is tailored-made to the specific requirements of a single customer. This can be a very costly method production however this means that the business has increased flexibility in terms of the product produced.
Batch Production	Batch production involves producing a limited number of the same item. This method of production is cheaper than job production however this method of production is not as flexible.
Flow Production	Flow production is continuous output of identical products. This is the cheapest method of production as production becomes fully automated. However this affords the business no flexibility in terms of product differentiation.

2. Types of Production (Advantages and Disadvantages)

There are three main types of production:

Type of Production	**Advantages and Disadvantages**
Job Production	**Advantages:** Highly flexible; gives the customer exactly what they want. **Disadvantages:** High production costs. Skills may be in short supply, making it hard for the business to grow
Batch Production	**Advantages:** Gain some cost advantages from producing several items at once…yet still able to offer customers the colour/size they want **Disadvantages:** May be limited scope for automation, making production costs far higher than with flow production. Not as flexible as job production.
Flow Production	**Advantages:** Can automate production fully, making it highly cost effective (which should be good for customers as well as suppliers). Many customers value consistency, and flow will provide an identical product each time. **Disadvantages:** Likely to be expensive to set up and inflexible to use; could be a disaster if a product life cycle proves much shorter than expected. Lacks flexibility in terms of meeting individual customer needs.

3. Managing Stock – Key Definitions

Term	Explanations
Bar Gate Stock Graph	A diagram used to manage stock.
Buffer (stock)	The minimum stock level always held to avoid running out.
Just in Time (JIT)	When new supplies must arrive 'just in time' moments before they are required.
Stock	Items held by a firm for use or sale, for example components for manufacturing or sellable products for a retailer

Managing Stock well is vital to the success of a business. Successful stock management requires the right balance between reliability and cost. **Too little stock and customers will feel let down. Too much stock and high costs will force high prices. Without stock, sales cannot happen. Manufacturers and retailers need to make sure they supply the right amount of goods to keep the shelves full.**

4. Procurement – Working with Suppliers	
There are five main factors at the heart of a relationship between a company and its suppliers:	
Quality	Suppliers must supply high quality products to businesses, suppliers will struggle to maintain a good relationship with a company if they are not supplying good durable products. First and fore most suppliers must supply high quality materials to businesses.
Delivery	Suppliers must deliver on time to clients, there is little point supplying at the right price and with the right product, if the product doesn't arrive on time. Failing to deliver supplies on time can bring manufacturing to a halt or leave shops with empty shelves.
Availability	Suppliers must be available and able to cope with varying orders in a timely fashion and sometimes within a short timeframe. Suppliers must be flexible and aware of the needs of their customers.
Cost	Cheaper supplies mean lower variable costs and higher profit margins. Therefore, the price charged by a supplier will be a key factor in the relationship between a firm and its suppliers. Price to highly and firms may look to alternative suppliers, price to low and firms may question the quality of merchandise. Pricing is key to the relationship between supplier and firm.
Trust	Trust is key for the relationship between firm and supplier. Most business transactions are on credit and not cash – therefore suppliers have to be able to trust that a firm will make a profit and be able to pay them back in cash.
8. Placing Strategy – Managing Quality within a Business	
Type of Quality Control	**Explanation:**
Quality Control	Quality control is a system of inspection to try to make sure that customers don't experience a poor-quality product or service. Such controls may include Factory Inspectors at the end of a production line checking the quality of a product
Quality Assurance	Quality Assurance describes the system put into place by a company to assure quality within the production system. Every member of staff will have responsibilities to quality assure products. Over time this should lead to quality products as people become better at their roles.
Quality Culture	Quality culture means the general attitudes and behaviours among staff within a workplace is focussed on high quality production. Quality culture describes motivated, punctual, diligent and invested employees who care about the business and strive to improve it.

9. The Sales Process	
Term	**Definition**
Customer Engagement	The attempt to make a customer feel part of something rather than an outsider.
Customer Feedback	Comments, praise or criticisms given to the company by its customers
Post-Sales Service	Service received after the purchase is completed because something has gone wrong or as a way of promoting customer engagement
Product Knowledge	How well staff know all the features of the products and service issues surrounding the products.

10. Customer Service

Great Customer Service is pivotal to any successful business, but there is far more than that to the sales process. To succeed in sales, a business must make sure it provides:

Component of Customer Service	Term
Product Knowledge	Customers expect that staff will be sufficiently well trained and well-motivated to have good knowledge of the products and services being offered. In order to ensure staff, have good product knowledge, certain things are essential: **Good Training** – if businesses provide good training to staff, then staff will be knowledgeable about products and therefore will be able to improve the customer experience **Loyal Staff** – The longer staff stay working in a job the better they become. If staff only stay three to six months, they will never develop a rich understanding of the products and services that the business provides. Well managed businesses pay fairly and treat staff with respect. **Committed Staff** – Committed and enthusiastic staff are crucial to the smooth running of any business. This is affected by the quality of recruitment, the standard of training and the overall culture that exists within the company's workforce.
Speedy and Efficient Service	**Good customer service is designed for the customer not the company.** **Efficient service:** Gets products to customers exactly when you want them Gets products to customers in good condition If there is anything wrong - it will be sorted out as soon as possible and considerately
Customer Engagement	**In the world of social media, it becomes possible to try to keep customers engaged with the business on a regular basis.** **Companies engage customers in a variety of ways:** E-Mail Social Media (Facebook and Instagram) Post Text Television/Web advertisements. **It is vital that customers feel up to date and informed about any product innovations**
Responses to Customer Feedback	How companies respond to customer feedback is vital, providing great customers service where people feel listened too ensures customers continue to come back and buy products from the business. It can cost a lot of money to persuade new customers to come advertising is expensive and it's affects are hard to judge. Building up a reputation for responding to customer feedback can travel by word of mouth and this is much cheaper.

Excellent Post Sales Service	

GCSE Business

Making financial Decisions (2.4)

Name:

1. Gross Profit Margin

	Explanation
Gross profit	Gross profit is the difference between a product's selling price and what it costs the business to manufacture/purchase.
Gross profit margin	The percentage of gross profit made from the sales revenue for a product.
Gross profit margin calculation.	Gross profit margin = $\frac{\text{Gross Profit}}{\text{Sales revenue}} \times 100$

2. Net Profit Margin

There are three main types of production:

Type of Production	**Advantages and Disadvantages**
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3. Average rate of return

Year 11 PRODUCT DESIGN Term 3

A. Physical & Working Properties

Physical properties are the traits a material has before it is used.

Absorbency	Ability to soak up moisture, light or heat
Density	How solid a material is
Fusibility	Ability of a material to be heated and joined to another material when cooled
Electrical Conductivity	Ability to conduct electricity
Thermal Conductivity	Ability to conduct heat

Working properties are how a material behaves when it is manipulated.

Strength	Ability of a material to withstand compression, tension and shear
Hardness	The ability to withstand impact with damage
Toughness	Materials that are hard to break or snap are tough & can absorb shock
Malleability	Being able to bend or shape easily would make a material easily malleable
Ductility	Materials that can be stretched are ductile
Elasticity	Ability to be stretched and then return to its original shape

What we are learning this term:

A. Physical & Working Properties B. Forces & Stressors C. Types of Motion
D. Paper & Card/Boards E. 6 R's F. Natural & Manufactured Timbers

B. Forces and Stressors

Forces apply stress to objects, causing them to break or change shape.

Different materials can withstand different forces.

Tension	Is a stretching or pulling force. E.g. the ropes of a suspension bridge
Compression	Is a pushing or squashing force, e.g. the weight of a building on its foundation
Bending	Is a combination of tension and compression. It exerts tension on one side and compression on the other, e.g. bending anything
Shear	Is a cutting force. The opposing forces are not directly opposite each other, e.g. cutting paper with scissors.
Torsion	Is a twisting force that attempts to rotate two ends of a material in opposite directions, e.g. wringing out a wet cloth.

C. Types of Motions

Linear	Moves something in a straight line. E.g. a train moving down a track
Reciprocating	Has a repeated up and down motion or back-and-forth motion. E.g a piston or pump
Rotary	Is where something moves around an axis or pivot point. E.g a wheel
Oscillating	Has a curved backwards and forwards movement that wings on an axis or pivot point. E.g a swing or clock pendulum

D. Paper & Card/Boards

Paper and cards/boards both come from wood pulp.

Paper	Board
Cartridge Paper	Corrugated Card
Grid Paper	Duplex Board
Layout Paper	Foil-Lined Board
Tracing Paper	Foam Core Board
Corrugated Card	Inkjet Card
	Solid White Board

E. 6 R's

You can use the 6R's when designing to help reduce the impact that new products have on the environment.

Repair	It's better to fix things instead of throwing them away.
Reuse	You can extend a products life by passing it on or using it again.
Recycle	The uses less energy than obtaining new materials.
Rethink	You should think about your design carefully. Is it needed?
Reduce	Making long-lasting durable products. Think rechargeable!
Refuse	You can refuse to buy a product if you think it is wasteful. Such as plastic bags.

F. Natural & Manufactured Timbers

Natural timber comes from trees.

Hardwood	Softwood
Ash	Larch
Beech	Pine
Mahogany	Spruce
Oak	Softwoods are faster growing and cheaper to buy.
Balsa	

Manufactured Boards

Manufactured boards are usually made from natural timber waste and adhesive.

- Medium-density fibreboard (MDF)
- Plywood
- Chipboard

Year 11 PRODUCT DESIGN Term 3

A. Physical & Working Properties

Physical properties are _____ _____.

Absorbency	
	How solid a material is
Fusibility	
	Ability to conduct electricity
Thermal Conductivity	Ability to conduct heat

Working properties are _____ _____.

Strength	
	The ability to withstand impact with damage
Toughness	
	Being able to bend or shape easily would make a material easily malleable
Ductility	
Elasticity	Ability to be stretched and then return to its original shape

What we are learning this term:

A. Physical & Working Properties B. Forces & Stressors C. Types of Motion
D. Paper & Card/Boards E. 6 R's F. Natural & Manufactured Timbers

B. Forces and Stressors

Forces apply _____ to objects, causing them to _____ or _____.

Different materials can withstand different forces.

Tension	
	Is a pushing or squashing force, e.g. _____ _____ _____
Bending	
	Is a cutting force. The opposing forces are not directly opposite each other, e.g. _____ _____
Torsion	

C. Types of Motions

Linear	
	Has a repeated up and down motion or back-and-forth motion. E.g _____ _____
Rotary	
	Has a curved backwards and forwards movement that wings on an axis or pivot point. E.g __ _____ _____

D. Paper & Card/Boards

Paper and cards/boards both come from _____.

Paper	Board
Cartridge Paper	
	Duplex Board
Layout Paper	
	Foam Core Board
Corrugated Card	
	Solid White Board

E. 6 R's

You can use the 6R's when designing to help reduce the impact that new products have on the environment.

Repair	
	You can extend a products life by passing it on or using it again.
Recycle	
	You should think about your design carefully. Is it needed?
Reduce	
	You can refuse to buy a product if you think it is wasteful. Such as plastic bags.

F. Natural & Manufactured Timbers

Natural timber comes from _____.

Hardwood	Softwood
Ash	
	Pine
Mahogany	
	Softwoods are _____ _____ _____
Balsa	

Manufactured Boards

Manufactured boards are usually made from _____.

Plywood

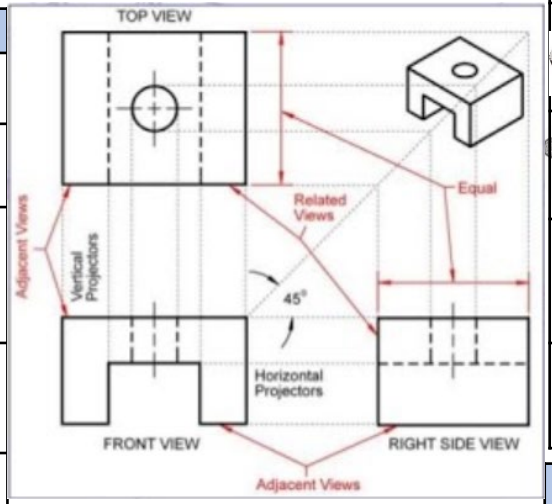
Year 11 Engineering Term 4 (Unit 2)

What we are learning this term:

A. Types of hazard B. Isometric and orthographic C. material properties D. Tools and equipment E. Categories of materials

A. Types of hazard

Sharp force	Anything that has the potential to cut, scratch or slice.
Blunt Force	Anything that has the potential to crush or bruise.
Entrapment	Any moving parts that have the potential to pull you in to the machinery. This leads to crushing / pulling.
Ejection	Any process that has the potential to have material/objects thrown out at you. For example, splinters of wood.
Inhalation	Any process that releases chemicals or particles that are dangerous if breathed in.
Control measure	What is done to reduce the risk of a hazard happening.



B. Orthographic and isometric

To translate isometric to orthographic, you need to always **draw your guidelines** and your **45° guide line.**

C. Material properties

Strength	Ability of a material to withstand compression, tension, torsion, bending, and shear.
Hardness	Ability to withstand abrasion and wear and tear.
Toughness	Materials that can withstand impact or are hard to break or snap are tough & can absorb shock.
Malleability	Being able to bend or shape easily would make a material easily malleable
Ductility	Materials that can be stretched along their length are ductile
Elasticity	Ability to be stretched and then return to its original shape

D. Tools & Equipment

	Forstner bit. Used to cut large diameter circular holes in wood.
	Lathe knurling tool, used to add surface texture to turned objects on the lathe.
	Chuck key, used to loosen or tighten the chucks (gripping parts) of various machinery.
	The centre punch is made from mild steel, with the point hardened and tempered, so that it withstands impact with the material it is marking. It is normally used to mark the centre of a hole to be drilled
	A Vernier caliper. Can take internal, external and depth measurements.

E. Material categories

Polymers (Plastics)	**Thermoforming –** melt when reheated **Thermoset –** burn when reheated
Metals	**Ferrous –** contain iron, rust and can be magnetic **Non-ferrous –** corrode instead of rusting, no iron
Timbers (wood)	**Hardwoods –** from trees that drop leaves in winter, slow growing and expensive **Softwoods –** from trees that keep their leaves in winter, fast growing and soft
Composites (combined materials)	**Sheet-based –** sheets of material glued together plywood, chipboard. Cheap and easy to manufacture with. **Fibre-based –** glass reinforced plastic, carbon fibre. Very strong and light
Smart materials	Materials that change their properties when given a stimulus. **Thermochromic –** changes colour in heat **Photochromic –** changes colour in light **Shape memory alloy –** can return to its original shape when heated

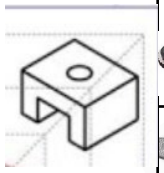
Year 11 Engineering Term 4 (Unit 2)

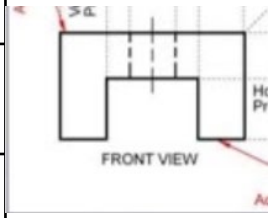
What we are learning this term:

A. Types of hazard B. Isometric and orthographic C. material properties D. Tools and equipment E. Categories of materials

A. Types of hazard

Sharp force	
Blunt Force	
Entrapment	
Ejection	
Inhalation	
Control measure	





B. Orthographic and isometric

Complete the orthographic drawing. Remember to **draw your guidelines** and your **45° guide line.**

C. Material properties

Strength	
Hardness	
Toughness	
Malleability	
Ductility	
Elasticity	

D. Tools & Equipment

E. Material categories

Polymers (Plastics)	
Metals	
Timbers (wood)	
Composites (combined materials)	
Smart materials	

Year 11 Engineering Term 3

E.	Materials and properties
Strength	Ability of a material to withstand compression, tension, torsion, bending, and shear.
Hardness	Ability to withstand abrasion and wear and tear.
Toughness	Materials that can withstand impact, or are hard to break or snap are tough & can absorb shock.
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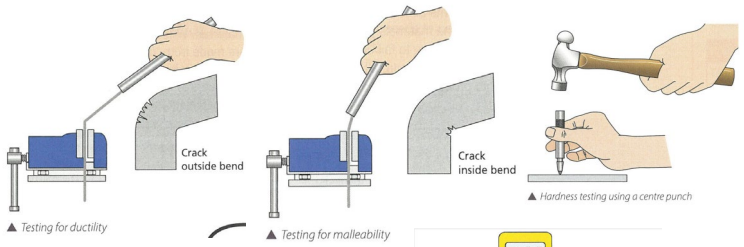
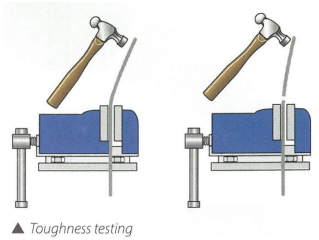
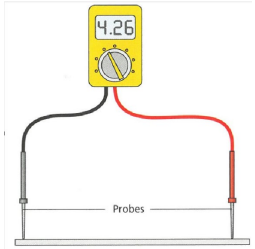


▲ Testing for ductility ▲ Testing for malleability ▲ Hardness testing using a centre punch


▲ Toughness testing



▲ Testing the electrical conductivity of a material


▲ Tensile strength testing

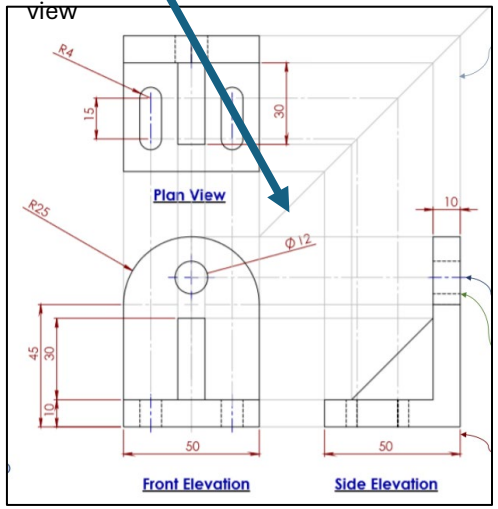
This test can be used to measure elasticity if you measure how much it springs back

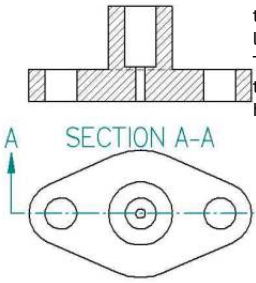
	Common exam question types
Identify which tool/ process/ property is needed	Consider the context of the question and underline the key information. If you are stuck on a tool/process question, think back to what we have used in the workshop. State your answer in a few words.
Analyze / evaluate products	Read the context, is it asking you for the pros and cons of the product or to explain how it is constructed? Underline the key words. Key areas to analyse are; structural features, mechanical features, electrical features, material choices, mechanical properties.
Compare / contrast products	Read the context, are they asking you to talk about just the pros and cons or are they talking about how one product is a **development** of the other? Key points: engineers now have a better range of materials to choose from, electronic components are now smaller and more powerful, modern products can be less durable and recyclable, modern designers can use CAD/CAM.
"Describe using notes and sketches" question	Read the question and underline what process they are asking you to describe. What would be reasonable for an engineer to do in that situation? 1.Break your process down into stages – 1.2.3 etc. For example, Stage 1. Place metal in vice 2 Draw quick diagrams of each step with annotations to show meaning 3. Make a list of the equipment needed for the process

Technical drawing questions

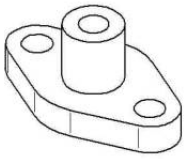
Always use pencil and ruler.
Always draw faint guide lines first.
If you are asked to draw isometric, they will give you isometric grid paper. Follow the lines on the grid paper.

Use a 45 degree line to bounce the guidelines from the top view to the side view





Section lines and letters are used to show what the product looks like sliced into by the section line. The section view is labeled with the two letters and solid parts are hatched.



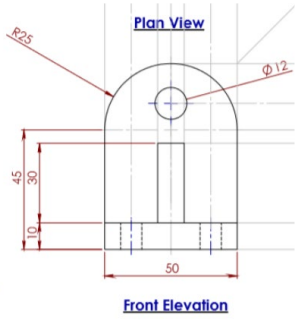
Year 11 Engineering Term 3

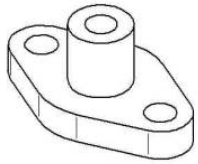
E.	Materials and properties
Strength	
Hardness	
Toughness	
Malleability	
Ductility	
Elasticity	

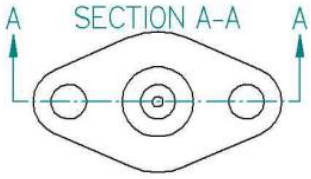
Describe using **notes and sketches** the process of testing a tennis racket for **elasticity** in a school workshop. [6]

Technical drawing questions

1. Complete the orthographic drawing, showing how you used guidelines.
2. Draw the section view







Practice question	Answer
Identify which material properties are most needed for a car tire.	
Developments in technology over recent years have had an impact on society. Discuss the **advantages and disadvantages** of using an electric car	
Below are images of a modern cordless drill and an older mains operated drill. Describe how **modern technology** has made the modern cordless drill **safer** to use. 	

Interpreting Theatre –
COMPONENT 3 –

Eduqas GCSE DRAMA
SECTION B - 15 marks
Question focus on design

Remember: Questions can vary and can focus on the following: LIGHT, SOUND, SET and PROPS, COSTUME, MAKE-UP and HAIR, ATMOSPHERE and MOOD, and USE OF SPACE.

COSTUMES MAKE-UP AND HAIR:

You will need to start by discussing the production style, e.g. Musical, Naturalistic or Symbolic Drama; then the period, venue and time. Choose the characters that are a good example of costume, make-up and hair design. You can discuss the costume's fabric, colours and style. The colour might symbolise the character's emotion or motivation and helps the interpretation. You can discuss the costume in detail from head to toe, giving your opinion on the effectiveness of design. Also discuss the costume's condition and quality and also how this lead the audience to judge or sympathise with the character.

Remember - The hair and make-up will need to be discussed and their effect explained, e.g. messy hair, white make-up, a lot of lipstick.

USE OF SPACE:

Explain what was the set's production style and also, was it essential to the shape of the stage? This will give an idea of the size of the space. The stage might be narrow and the set might be bare to give fair attention and a chance for the actors to use as much space as possible. If so, how were the locations created? Was there a change in atmosphere? Did a particular light suggest that? Were simple levels changed from one area of space to another? Was the space meant to be closed in order to create the theme of frustration and boredom? How did the actors make the most of the space they had? If the production was on a wide stage, there would be an opportunity to use several resources, sets, levels and rostra to create locations. Actors' locations could vary frequently and move to create an atmosphere of excitement and vitality. There may be many actors and a chorus coordinating and making effective use of the space in one scene of the production. Remember, when discussing space, you will need to refer to the equipment in the space and characters' locations.

MOOD AND ATMOSPHERE:

Many theatrical resources can create mood and atmosphere in a production. But whilst referring to the designer's role, you could discuss the lighting, sound, costumes and set designer's work. However, one of these may have made more of an impression on you than the others. So, choose the show carefully, and initially, discuss the drama's style and context, e.g. Musical, Theatre Show in Education, production of Shakespeare's work, perhaps. Try to describe a scene (or scenes) that was/were full of tension and built tension amongst the audience, e.g. slowly increasing sound, the light fading or changing colour, the actor adding a piece of costume or using props in a symbolic way. A series of images on screen or a film might add to the mood. Theatre designers have so many possibilities to create mood and atmosphere.

LIGHT:

You will need to start by discussing the style of the production, e.g. Musical, Naturalistic or Symbolic Play, then the type of set and stage shape. The designer will have selected the types of light in order to reinforce this style. Choose a particular scene or scenes (depending on the question), which will be effective examples of lighting. You can discuss the types of lamps used, e.g. wash, fresnel, beams, profile and strength; and also the angles and how the set and actors were lit. Discuss the colours and gels and how this created an atmosphere. Gobos, cyclorama, a video screen or specific images might have been used. Lighting from the back can cast shadows and create a more sinister mood. The lighting for your production may be more simple but effective for different reasons, e. g. to emphasize themes or symbolize emotion.

SOUND:

You will need to start by mentioning the style of the production and then discuss how the sound enriched the show. The designer may have chosen the sound to match the period, social background of the play or specific themes. However, the designer may want to create a more vague or suggestive sound. Once again, the sound will have to be discussed in one scene or scenes. Sound can be a piece of music that's already been recorded or live music. It may also be a recorded sound effect or a live sound effect, e. g. a gun firing on or off stage, sounds off stage. Explain how the sound created a mood and atmosphere in this piece and helped the production to flow smoothly, or created a blanket in the background. You will need to mention the sound levels and volume and its impact, e.g. sinister or peaceful sound, classical or contemporary music; appropriate instruments to create a mood e.g. saxophone.

SET AND PROPS:

Comment on the style of the production and the design of the set. You will need to mention the shape of the stage, the drama period and the general appearance of the set, e.g. naturalistic, minimalistic, symbolic, bare. You can also discuss where the audience is situated in relation to the show, e.g. theatre in the round, traverse or proscenium theatre. Then proceed to explain the type of set used and how effective that was, e.g. painted flats, the colours and patterns; they may have been covered by material. The mobile platforms and rostrum that created a specific shape and location on the stage floor. Different levels that represented the status of particular characters or areas in the plays, e.g. scaffolding, the use of stage furniture and equipment, curtains and gauze. Consider the back of the stage as well and what was used to cover the walls, and also the ceiling and floor. You can discuss the materials, e.g. metal, wood or plastics, and also the colours used.

PROPS - Don't forget to discuss the props in terms of their period, colour, quality and condition and how they created impact and reinforced the production.

Interpreting Theatre –
COMPONENT 3 –

Eduqas GCSE DRAMA
SECTION B - 15 marks
Question focus on design

Have a go at answering these questions about the live performance you watched - Curious Incident

COSTUMES MAKE-UP AND HAIR:

USE OF SPACE:

MOOD AND ATMOSPHERE:

LIGHT:

SOUND:

SET AND PROPS:

Interpreting Theatre –
COMPONENT 3 –
Eduqas GCSE DRAMA
SECTION B - 15 marks
Question Focus on Acting

Remember: The questions can vary and focus on the actor's use of PHYSICAL SKILLS, VOCAL SKILLS, INTERACTION, INTERPRETATION OF CHARACTER.

PHYSICAL SKILLS:

You will need to specify how the actor interprets the character through his use of gestures, posture, walk, physical responses, facial expressions, position on the stage, special territories, stillness, use of space, set and personal equipment and props. To begin with, briefly mention the character, background, age, importance and social status because all of this is dependent on the actor's interpretation of the role he/she portrays. You can then specify and give examples of how the actor succeeded in physically conveying the character in a scene OR two scenes of the production in question (read the question carefully). You can give examples from the beginning, middle and end of the scene in order to organise the answer.

Remember to use plenty of terminology.

VOCAL SKILLS:

You will need to specify how the actor interprets the character through their use of tone and vocal tempo, perhaps accent, pitch, emphasis on words, use of pauses to create tension, pronunciation and constructiveness. Choose a specific scene or two, and discuss how the actor used the skills to create and enrich the role. You can refer to the character's background, age, status and motivation in this particular part. You can refer to the beginning, middle and end of a scene of your choice and elaborate on the skills associated with the voice.

Remember to use plenty of terminology.

INTERACTION SKILLS:

You will need to specify how the actor responds to the rest of the actors on stage, the distance and proximity between them and what was the significance of this. Was the actor moving deliberately to suggest a feeling or emotion? The actor may be using a series of facial gestures and responses, e.g. folded arms, eyes rolling, scrunched face, walking back and forth, pointing or back turned. Remember that the impact of this on the rest of the actors needs to be explained and how this succeeded in causing tension, a feeling or an emotion. What was the impact of this on the audience? Decide on specific examples from a scene or two scenes - once again, it depends on the question.

CHARACTER INTERPRETATION:

The character (or characters) in question will need to be discussed in terms of age, social class, intent and motivation, background and their relationship with the rest of the characters in the scene. Explain how the actor used the physical skills to interpret the role, then the vocal skills and interaction skills. Stick to the order of referring to the beginning, middle and end of a scene or scenes to organise your answer.

Remember to use the appropriate terms.

Interpreting Theatre –
COMPONENT 3 –
Eduqas GCSE DRAMA
SECTION B - 15 marks
Question Focus on Acting

Have a go at answering these questions about the live performance you watched - Curious Incident

Remember: The questions can vary and focus on the actor's use of PHYSICAL SKILLS, VOCAL SKILLS, INTERACTION, INTERPRETATION OF CHARACTER.

PHYSICAL SKILLS:

Remember to use plenty of terminology.

VOCAL SKILLS:

INTERACTION SKILLS:

CHARACTER INTERPRETATION:

BUILDING BRICKS: Exploring the Elements of Music and the Functions of a Keyboard

Why? – To excel in listening, analysis, composition & performance

MADD TSHIRTT

A. MELODY

Melody is a succession of pitches in rhythm. The melody is usually the most memorable aspect of a song, the one the listener remembers and is able to perform.

KEYWORD	MEANING
Pitch	How high or low a sound is
Octave	A series of 8 notes e.g., C-C, D-D
Pentatonic	A musical scale with 5 notes
Range	The distance between the lowest and highest pitched note in a melody
Motif	A repeated theme that is memorable
Hook/Riff	A very catchy melodic phrase
Imitation	Repeated melody in a different instrument or voice

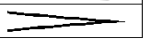
B. ARTICULATION

Articulation refers to the way that notes should be performed. There are many types of articulation, with each having a different effect on how the note is played.

KEYWORD	MEANING
Staccato	Short and detached notes
Legato	Smooth and slurred notes
Accent	Emphasis placed on a particular note/beat
Pizzicato	Plucked strings
Arco	Bowed strings
Col Legno	Hitting strings with the wood of the bow
Glissando	Sweeping notes (think of the harp)
Vibrato	Subtly vibrating the sound by alternating the pitch between two notes

C. DYNAMICS

The dynamics of a piece is the variation in loudness between notes or phrases. Musicians use a variety of dynamics to add excitement and emotion to songs.

KEYWORD	MEANING	SYMBOL
Pianissimo	Very quiet	*pp*
Mezzo Piano	Moderately quiet	*mp*
Piano	Quiet	*p*
Mezzo Forte	Moderately loud	*mf*
Forte	Loud	*f*
Fortissimo	Very loud	*ff*
Crescendo	Gradually louder	
Diminuendo	Gradually quieter	

D. TEXTURE

Texture describes how layers of sound within a piece of music interact. Texture is determined by how many instruments are playing and how many different parts there are.

KEYWORD	MEANING
Unison	All playing or singing the same note
Thick/Thin	Number of layers of instruments/voices
Monophonic	A single line of musical notes
Homophonic	Moving together in chordal fashion
Polyphonic	Multiple layers, weaving melodic lines
Tutti	Meaning 'everyone' or 'all together'
Call & Response	Like question and answer – two parts having a musical conversation
Countermelody	A tune that complements the main melody

E. STRUCTURE

Structure is the order that different parts of the song are played in. The basic structure of a song can include an intro, verse, pre-chorus, chorus, and bridge.

KEYWORD	MEANING
Binary	Two main sections, AB
Ternary	Three distinct sections, ABA
Rondo	Initial section that recurs, ABACADA
Theme & Variations	A melody is stated and is then repeated several times with changes
Verse	Tells the main story of a song
Chorus	A catchy part that is repeated in a song
Bridge	A contrasting section that prepares the listener for the return of the chorus

F. HARMONY

Harmony is the blending of simultaneous sounds of different pitch. A harmony differs from a melody in the way that it stacks multiple notes on top of one another to create a sound.

KEYWORD	MEANING
Chord	Three or more notes played together
Triad	Three notes: root, third, fifth
Arpeggio	Broken chord: notes are sounded individually
Perfect Cadence	Two chords at the end of a passage that sound as though the music has come to an end
Imperfect Cadence	Two chords at the end of a passage that make the music sound unfinished
Modulation	The change from one tonality to another
Dissonance	Two or more clashing notes

Question	Answer	Question	Answer
Identify this musical symbol 		What is a **Motif**?	
What does this symbol mean? 		What does **pizzicato** mean?	
What does **Homophonic** mean?		What does **Fortissimo** mean?	
How many sections are there in a **Binary form** piece of music?	**1 2 3 4**	Draw the symbol for **Fortissimo**	
What sections are in a **Ternary** Form piece of music?	**AB ABA ABACA**	Identify this musical symbol 	
Identify this musical symbol 		What does the above symbol mean?	
What does this symbol mean? 		Put these dynamic markings in order from quietest to loudest: **p ff f mp pp mf**	
What is the definition for a **hook/riff**?		What is an **accent**? The symbol is >	
How many beats is this note worth?		What's the musical term for notes that are played **short and detatched**?	
What is the musical term for notes that are played **smooth and slurred**?		What does **Pentatonic** mean?	
What is an **Octave**?		What **texture** has multiple layers and weaving melodic lines?	

G. INSTRUMENTS

KEYWORD	MEANING
Strings	Violin, Viola, Cello, Double Bass, Harp
Brass	Trumpet, French Horn, Trombone, Tuba
Woodwind	Piccolo, Flute, Clarinet, Oboe, Bassoon
Percussion	Timpani, Xylophone, Glockenspiel, Maracas
Soprano	Highest female singing voice
Alto	A lower female singing voice
Tenor	Standard male singing voice
Bass	Low male singing voice

H. RHYTHM

Rhythm involves time—the duration of musical sounds. Rhythm can exist without melody, as in the drumbeats of music, but melody cannot exist without rhythm.

KEYWORD	MEANING	SYMBOL
Semiquaver	¼ beat	
Quaver	½ beat	
Pair of Quavers	1 beat	
Crotchet	1 beat	
Minim	2 beats	
Dotted Minim	3 beats	
Semibreve	4 beats	
Breve	8 beats	

I. TIMBRE

Timbre refers to the quality of a sound made by a particular voice or musical instrument. It is what makes a musical note sound different from another one.

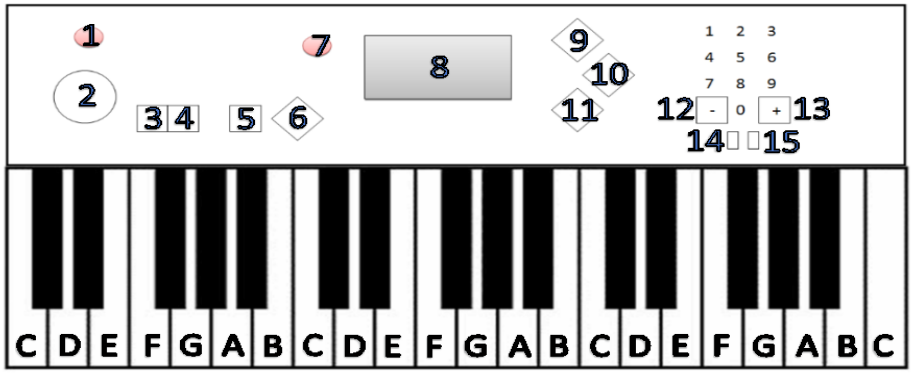
ADJECTIVE	INSTRUMENT	ADJECTIVE	INSTRUMENT
Sweet	Flute	Hollow	Xylophone
Nasal	Oboe	Booming	Bass Drum
Tinkly	Glockenspiel	Muted	French Horn
Pounding	Timpani	Dull	Viola
Brassy	Trumpet	Breathy	Saxophone
Mellow	Clarinet	Shrill	Piccolo
Rich	Cello	Pure	Violin
Crashing	Cymbals	Rattly	Maracas
Dark	Double Bass	Reedy	Bassoon

J. TEMPO

Tempo means the speed at which a piece of music should be played. As with many other musical terms, Italian words are used to describe different tempos of music.

KEYWORD	MEANING	SYMBOL
Presto	Very fast	*168-200bpm*
Allegro	Fast	*120-168bpm*
Moderato	Moderate	*108-120bpm*
Andante	Walking pace	*76-108bpm*
Adagio	Slow	*66-76bpm*
Largo	Very slow	*40-66bpm*
Accelerando	Gradually faster	accel.
Rallentando	Gradually slower	rall.

K. LAYOUT AND FUNCTIONS OF A KEYBOARD



1. Power Button (on/off)
2. Volume
3. Accompaniment
4. Intro/Ending
5. Sync. Start
6. Start/Stop Button
7. Tempo Button
8. Screen
9. Song
10. Voice
11. Style
12. Go left on options
13. Go right on options
14. Dual

L. DRILL TERMS

KEYWORD	MEANING
Treble Clef	Also known as the G Clef as it starts on the G line
Bass Clef	Also known as the F Clef as it starts on the F line
Stave	5 lines, 4 spaces that music notes are written on

KEYWORD	MEANING
Quaver	A note that lasts for ½ beat
Crotchet	A note that lasts for 1 beat
Minim	A note that lasts for 2 beats

KEYWORD	MEANING
Dotted Minim	A note that lasts for 3 beats
Semibreve	A note that lasts for 4 beats
Sharp/Flat	Higher/Lower by 1 semitone

Question	Answer	Question	Answer
How many **Semi-quavers** are in a **Crochet**?		What **Instrument** has a **Dark Timbre**?	
What does **Accelerando** mean?		What is the definition of **Allegro?**	
Give the names of **4 Brass instruments**...		How many **Quavers** are in a **Minim**?	
How many **Beats** is this note? 		What does **Alto** mean?	
What is the name the note? 		What **Clef** is also know as the **F Clef**?	
What does the word **Presto** mean?		Identify this musical symbol 	
List **3 instruments** found in the **Brass** section of an orchestra		How many **beats** is this symbol? 	
Solve this problem:  +  - 		List **3 instruments** found in the **Woodwind** section of an orchestra	
What **note** lasts for **4 beats**?		What musical term is used for the **highest female singing voice**?	
What does **Sharp**/**Flat** mean?		What **Timbre** does the **Violin** have?	
What does the key word **Andante** mean?		List **3 instruments** that can be found in the string section	

What we are learning in LAA:

A. Key words
B. Definitions of health and wellbeing
C. Genetic inheritance

A. Key words for this Unit

Genetic inheritance	The genes a person inherits from their parents
Predisposition	Someone is more likely to suffer from a particular condition
Chronic	Gradual illness that is long term (longer than 3 months) and generally can be treated but not cured
Acute	A short-term illness that can be cured
Monitor	To check progress over a period of time.
Person-Centred	Planning care around the wants and needs of a service user
Bereavement	The process of coming to terms with the death of someone close.
Circumstances	Events that change your life, over which you have no control
Physiological	Relates to how a person and their bodily parts function normally.
Interpret	understand an action, mood, or way of behaving as having a particular meaning
Collaboratively	Working well together with other poeple or services
Obstacles	Difficulties a person might face when they implement a plan.
Goal	What you want to achieve in the long term
Norm	Something that is usual, typical or standard
Targets	Challenges to help you reach your goal

B Definitions of heath and well-being 9

Positive Definition

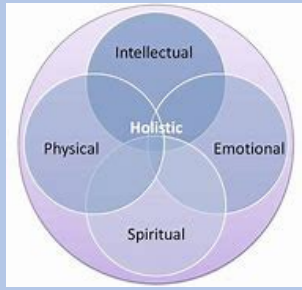
Looks at how physically fit and mentally stable a person is. You have a positive attitude towards health and wellbeing if you realise that there is something you can do to improve your health and wellbeing and do it.

Negative definition

Looks at the absence of physical illness, disease, and mental distress. You have a negative attitude towards your health and wellbeing if you:

- Base your attitude on not having anything wrong with you.
- Continues as you are- Inc. keeping bad habits like smoking.
- Assume that because you currently feel fine you will stay healthy in the future.

Holistic definition



It is a combination of physical health and social and emotional wellbeing. It is not just the absence of disease or illness; it looks at all aspects of a person's health and wellbeing. You have a holistc attitude towards health and wellbeing if you look after your:

- **Physical Health:**
Be meeting the needs we have to keep our bodies working as well as they can, e.g. Food, water, shelter, warmth, clothing, rest, exercise and good personal hygiene.

- **Intellectual health:**
By meeting the needs we have to develop and keep our brains working as well as possible; these include mental stimulation to keep us motivated and interested.

- **Emotional aspects of wellbeing:**
By meeting the needs we have that make us feel happy and relaxed, e.g. being loved, respected and secure. Knowing how to deal with negative emotions, having positive self-concept and being respected by others.

- **Social aspects of wellbeing**:
By meeting the needs we have to help us develop and enjoy good relationships with others, including mixing with others in appropriate environments and having access to leisure facilities/ activities.

C. Genetic inheritance

Inherited physical Characteristics

- Children inherit their physical; characteristics from their parents e.g. height, skin and eye colour and hair type and colour.
- These characteristics can affect social and emotional welling because they influence a person's self-concept (self-image and esteem).

Genes and environment

- Chromosomes carry genes that determine aspects of persons physical makeup.
- Gene is a section of DNA that carries a code. Different versions of a gene are called **alleles** (they can be faulty).
- Environmental factors such as diet, also influence physical appearance. For example, a person may not grow to their full, genetically determined height if they do not have enough food.

Allele type

Dominant:
If a gene is dominant a child inheriting it from only one birth parent will have the condition, e.g Huntington's disease.

Recessive:
If the gene is recessive a child would only develop the condition if it was inherited from both birth parents, e.g. Cystic fibrosis.

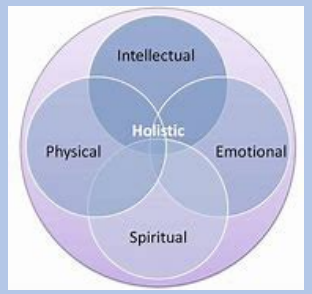
Effects of inherited disorders

- Physical health: Body systems, growth and mobility
- Intellectual welling: learning, thinking, problem solving and decision making.
- Emotional wellbeing: how people feel about themselves.
- Social wellbeing: the ability to build relationships and maintaining them.

What we are learning in LAA:

A. Key words
B. Definitions of health and wellbeing
C. Genetic inheritance

A.	**Define the key words for this Unit**
Genetic inheritance	
Predisposition	
Chronic	
Acute	
Monitor	
Person-Centred	
Bereavement	
Circumstances	
Physiological	
Interpret	
Collaboratively	
Obstacles	
Goal	
Norm	
Targets	

B	**Definitions of heath and well-being** 0
Positive Definition 	
Negative definition 	
Holistic definition 	**Definition:** • **Physical Health:** • **Intellectual health:** • **Emotional aspects of wellbeing:** • **Social aspects of wellbeing**:

C.	**Genetic inheritance**	
Inherited physical Characteristics		**Genes and environment**
• •		• • •
Allele type	Dominant:	Effects of inherited disorders • • • •
	Recessive:	

What we are learning in LAA:

D. Balanced diet
E. Chronic and acute illness
F. What are the effect of exercise?
G. What are the effect of excessive substance use?

D. Balanced diet

What is a balanced diet?	• Diet that contains the correct nutrients in the right proportions to keep out bodies and minds healthy. • It is also a lifestyle choice • Choosing to eat too much or too little might make us less able to take all the opportunities that life offers.
Overweight or underweight may:	A person over weight or under weight may: • Be prone to illness and conditions • Have their life expectancy reduced • Be less able to exercise effectively • Miss out on learning experiences • Miss out on some sporting activities • Be less successful in job interviews • Feel embarrassed and self-conscious about their appearance in social situations.
Essential parts of a healthy diet:	• Fats (saturated and unsaturated) • Carbohydrates (sugars and starches) • Minerals • Vitamins • Proteins
Est well guide says you should eat:	• Eat at least 5 portions of a variety of fruit and vegetables every day. • Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible. • Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options. • Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily). • Choose unsaturated oils and spreads and eat in small amounts. • Drink 6-8 cups/glasses of fluid a day.
If you eat <u>more</u> than you need:	• The body will store food as fat and this can lead to: • Obesity, heart disease, high blood pressure, Strokes, Tooth decay or cancer
If you eat <u>less</u> than you need	• The body does not get enough nutrients to grow and develop properly and this can lead to: • Eating disorders, stunned growth, anaemia, heart failure, depression, tiredness, cancer or rickets.

E. Chromic or Acute Illness

1

Chronic illness- Illness comes on gradually, is long term (more than 3 months) and generally can be treated but not cured. E.g Asthma, Diabetes, epilepsy, bipolar disease, Alzheimer's disease	**Acute illness-** Illness comes on quickly, is short term and can be cured. E.g. Cold, flue, broken bones, heartburn, appendicitis or Diarrhoea.

Some chronic conditions are acute but may develop because of chronic conditions. For example: osteoporosis (a chronic condition that weakness bones) masking their bones fragile and more likely to break. Broken bones are then an acute condition.

Possible negative effects of chronic illness

Physical: • poor rate of growth • Unusual physiological change during puberty • Restricted movement	Emotional: • Negative self-concept • Stress • Decision making
Intellectual: • Disturbed learning because of missing school • Difficulties in thinking and problem solving • Memory problems.	Social • Isolation • Loss of independence • Difficulties developing relationships

F. What are the effect of exercise?

Positive effects of exercise 	**<u>Physical:</u>** maintain a healthy weight, reduce BMI, boosting energy levels. Improved flexibility, stamina, endurance and stronger bones and muscles. Reduce risk of heart disease and diabetes. **<u>Intellectual</u>**: improved brain function like mentor and thinking skills. **<u>Emotional:</u>** improves confidence and mood and reduces stress. Aid relaxation and sleep and lead to better self concept. **<u>Social</u>**: encourages social interaction, reducing isolation and improving social skills.
Negative effects of exercise	**<u>Physical:</u>** Obesity and associated health problems. **<u>Intellectual</u>**: Reduced pain performance, hard to concentrate and retain information. **<u>Emotional:</u>** poor self-concept and reduced ability to cope with stress. **<u>Social:</u>** Fewer opportunities for social interactions.

G. What are the effect of excessive substance use?

Negative effects of excessive alcohol consumption 	**<u>Physical:</u>** Alcohol dependence, damage to major organs: liver, heart, kidneys, pancreas. Cancers: mouth, throat, oesophagus, liver, breast. Infertility and impotence, weight gain. **<u>Intellectual</u>**: difficulty in making decisions, depression and anxiety, chance of stroke and brain damage, impaired brain development of unborn baby. **<u>Emotional</u>**: poor self-concept, poor judgement leading to a risk of accidents and unsafe sex, can have an impact on relationships, depression. **<u>Social</u>**: breakdown of relationships, domestic violence, social isolation

What we are learning in LAA:
D. Balanced diet E. Chronic and acute illness F. What are the effect of exercise? G. What are the effect of excessive substance use?

D. Balanced diet

What is a balanced diet?	
Overweight or underweight may:	
Essential parts of a healthy diet:	
Est well guide says you should eat:	
If you eat more than you need:	
If you eat less than you need	

E Chromic or Acute Illness 2

Chronic illness-	**Acute illness-**
Explanation:	

Possible negative effects of chronic illness	
Physical:	Emotional:
Intellectual:	Social

F. What are the effect of exercise?

Positive effects of exercise 	**Physical:** **Intellectual**:. **Emotional**: **Social**:
Negative effects of exercise	**Physical:** **Intellectual**:. **Emotional**: **Social**:

G. What are the effect of excessive substance use?

Negative effects of excessive alcohol consumption 	**Physical:** **Intellectual**:. **Emotional**: **Social**:

What we are learning in LAA:

H. The effects of social interactions on wellbeing
I. What are the effects of stress on health and wellbeing
J. What are the hazards of smoking
K. What are the effects of personal hygiene

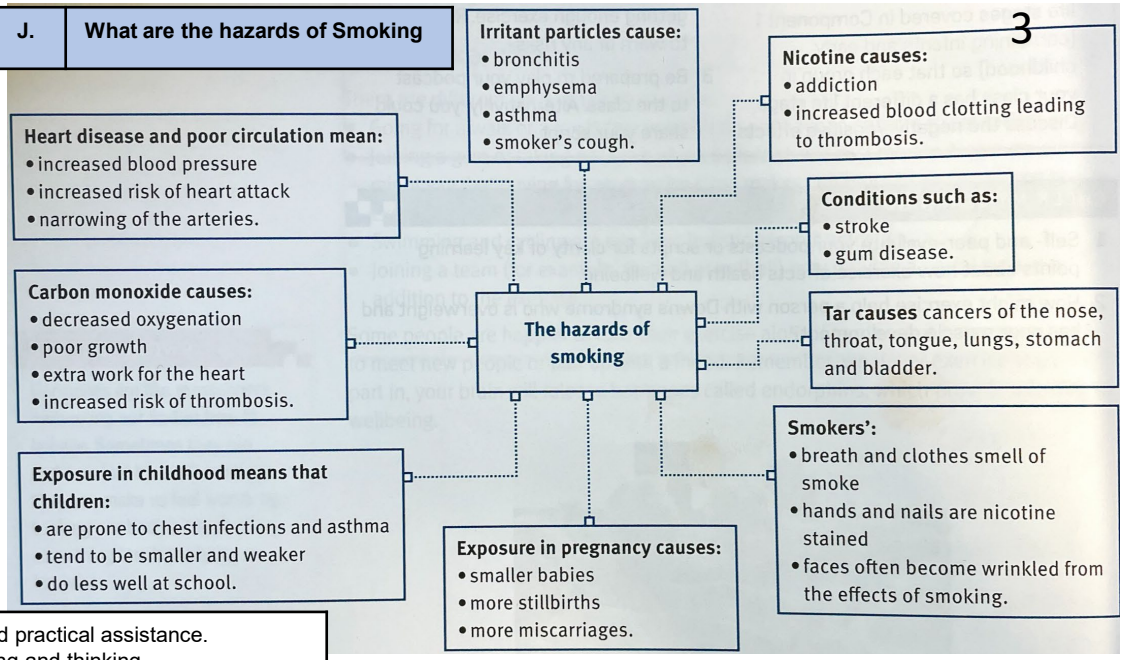
H. The effects of social interactions on wellbeing

Social integration	When people feel they belong to a group and can interact with others. Social interactions can happen between family members and friends, work colleagues, school learners, members of a community or interest groups.
Social isolation	Occurs when people do not have regular contact with others. This may be because they don't go out much because of physical illness, reduced mobility or unemployment. They might have a difficulty in communicating if they have a mental illness, depression or learning difficulties. Lastly, a person might be discriminated against because of culture, religion or disability.
Positive effects of relationships 	**Physical:** physical support and day to day care and practical assistance. **Intellectual:** shared experiences, supported learning and thinking **Emotional:** unconditional love, security and encouragement, positive self-concept, feeling content, ability to build relationships with people outside the family, independence and confidence. **Social:**. Companionship, social circle increases.
Negative effects of social isolation 	**Physical:** poor lifestyle choices like smoking and drinking, poor diet that can cause eating disorders. **Intellectual**: reduced ability to use thinking skills, missing school/work **Emotional**: feelings insecure, depression, anxiety, negative self-concept, feeling of hurt, loneliness and distrust, lack of independence, difficulty in controlling emotions. **Social:** difficulties in building relationships as lack skills.

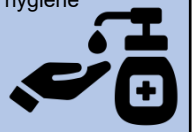
I. What are the effects of stress on health and wellbeing

Physical effects	Intellectual effects	Emotional effects	Social effects
Increased heartbeat Increased breathing rate Tense muscles Sweaty palms Dry mouth High blood pressure Loss of appetite Sleeplessness Digestive problems	Forgetfulness Poor concentration Difficulty in making decisions	Difficulty in controlling emotions Feeling insecure Negative self-concept Feeling anxious and frightened Loss of confidence	Difficulty in making friends and building relationships Breakdown of close relationships Social isolation

J. What are the hazards of Smoking



K. What are the effects of Personal Hygiene?

Positive effects of good personal hygiene 	• Helps prevent the spread of infection • Improves self-concept • Reduces number of bacteria that lives on us. **You must:** • Brush you teeth • Shower daily or bath • Wash your hair regularly • Keep fingernails and toenails clean and trimmed
Negative effects of poor personal hygiene	**Physical:** catching and spreading disease like food poisoning, sore throat, meningitis and athlete's foot. Bad body odour, bad breath and tooth decay. **Emotional:** loss of friendships and social isolation. Might be bullied and poor self-concept. **Social:** low social interactions as people don't want to be friends with someone that neglects their hygiene. Social isolation.
When caring for others:	• Bad hygiene can stop effect communication. • Negative effect on the person being cared for and their health and wellbeing- pass on infection • Discomfort for the person being cared for because of the odour or visible dirt under fingernails.

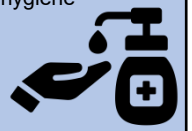
What we are learning in LAA:
H. The effects of social interactions on wellbeing I. What are the effects of stress on health and wellbeing J. What are the hazards of smoking K. What are the effects of personal hygiene

H.	The effects of social interactions on wellbeing
Social integration	
Social isolation	

Positive effects of relationships 	**Physical:** **Intellectual:.** **Emotional:** **Social:**
Negative effects of social isolation 	**Physical:** **Intellectual:.** **Emotional:** **Social:**

I.	What are the effects of stress on health and wellbeing		
Physical effects	**Intellectual effects**	**Emotional effects**	**Social effects**

J.	What are the hazards of Smoking- draw out the mind map in the space below:

K.	What are the effects of Personal Hygiene?
Positive effects of good personal hygiene 	• • • **You must:** • • • •
Negative effects of poor personal hygiene	**Physical:** **Emotional:** **Social:**
When caring for others:	• • •

What we are learning in LAA:

L. What are the barriers to seeking help.
M. What are the effects of unexpected life events on health and wellbeing
N. What are the effects of economic factors (e.g, income) on health and wellbeing
O. What are the effects of expected life events on health and wellbeing

L.	What are the barriers to seeking help.
Culture	Accessing HSC services can be influenced by values, traditions, way of life and beliefs of the society or group. • Some may have received discrimination when accessing other services. • Some may not speak English well enough. • Values and traditions not understood e.g. eye contact means respect in some cultures but not others. • Some cultures a woman must be treated only by a female professional. • Alternative therapies are used in some cultures
Gender	Research shows that men are lesson likely to talk about their health and wellbeing than woman. This is because men are: • Often less open about their feelings • Sometimes reluctant to appear vulnerable by asking for help • Not aware of poor health signs as health campaigns target women's health more • Unhappy to be examined by a female health worker.
Education	Research shows that people who are better educated are more likely to seek help. This is because: • They like to research symptoms and know when help is needed • Understand the importance of early diagnosis and treatment • Know how and where to access services.
Stigma	In some cultural groups there is a stigma attached to certain condition like depression. Stigma is a word used to describe something that people feel embarrassed about. Therefore, they wouldn't seek help.

M.	What are the effects of unexpected life events on health and wellbeing	
Life event	**Positive Effects:**	**Negative Effects:**
Imprisonment	• Depression • Loss of contact with family and friends • Social isolation • Restrictions on physical activity	• Opportunity to study • Improvement in health through balanced diet, lack of alcohol, reduced use of nicotine
Redundancy	• Poor self-concept • Anxiety about finances • Fewer opportunities	• Opportunities to study or train for a new job • More time to spend with family and friends
Exclusion or dropping out of education	• Loss of contact with friends • Social isolation • Poor self-concept • Lack of learning opportunities	• Catalyst for change of behaviour • Opportunities for more suitable study or work situation

N.	What are the effects of economic factors (e.g, income) on health and wellbeing	
	Positive Effects:	**Negative Effects:**
Physical	• Better financial resources can result in good housing conditions and healthy diet • Manual jobs may improve muscle tone and stamina.	• Low wages can affect diet ad housing, leading to poor health. • Manual jobs can cause muscular and skeletal problems • Desk jobs lead to less activity and weight gain.
Intellectual	• Better financial resources can result in more leisure time for intellectual activities • Work, education or training helps to develop problem solving and thinking skills	• Some people work very long hours to improve their financial position, leading to less leisure time and reduced learning opportunities. • Being unemployed can result in poor mental health.
Emotional	• A well-paid job gives a feeling of security. • Being financially secure promotes positive self-concept	• Financial worried can result in stress and breakdown of relationships. • Unemployment or low-status work can lead to low self-concept
Social	• Better financial resources provide opportunities for socialising. • Work gives opportunities for socialising with colleagues.	• Lack of financial resources reduces opportunities for socialising. • Unemployment reduces opportunities for relationships, leading to social isolation.

O.	What are the effects of expected life events on health and wellbeing	
Life event	**Positive Effects:**	**Negative Effects:**
Starting school, college or uni	• Build new relationships • Extend knowledge and learning • Develop new skills • Improve confidence	• Anxiety about new routines and meeting new people • Insecurity about leaving parents and other families
Start a new job or career	• Develop independence • Improve thought processes • Improve self-concept	• Stress about learning new skills and routines • Anxiety about meeting new people
Moving to a new house or area	• Excitement • Develop new friendships and relationships	• Unhappiness at loss of old life • Stress of moving • Social isolation
Retirement	• Reduced stress • Time to socialise with family and friends • Opportunities for leisure of physical activities	• Loss of relationships with colleagues • Possible loss of fitness and mobility • Loss of intellectual stimulation and status

What we are learning in LAA:
L. What are the barriers to seeking help. M. What are the effects of unexpected life events on health and wellbeing N. What are the effects of economic factors (e.g, income) on health and wellbeing O. What are the effects of expected life events on health and wellbeing

L.	What are the barriers to seeking help.
Culture	
Gender	
Education	
Stigma	

M.	What are the effects of unexpected life events on health and wellbeing	
Life event	Positive Effects:	Negative Effects:
Imprisonment		
Redundancy		
Exclusion or dropping out of education		

N.	What are the effects of economic factors (e.g, income) on health and wellbeing	
	Positive Effects:	Negative Effects:
Physical		
Intellectual		
Emotional		
Social		

O.	What are the effects of expected life events on health and wellbeing	
Life event	Positive Effects:	Negative Effects:
Starting school, college or uni		
Start a new job or career		
Moving to a new house or area		
Retirement		

What we are learning in LAB:

A. Physiological health indicators
B. What are health indicators?
C. Interpreting lifestyle data

A.	Physiological health indicators
Pulse	**Resting pule rate** is measured when a person has been still for about 5 minutes. Health reading for an adult is 60-100 bpm. **Pulse rate during exercise:** 220bpm minus the person's age.
Blood pressure	• This is the pressure exerted by blood against the artery walls. • It is measured in millimetres of mercury (mm Hg) and is shown in two numbers: • Systolic pressure: (the top number) is the maximum pressure in the blood vessels as the heart pushes out blood. • Diastolic pressure: (the bottom number) as the minimum pressure in the vessels when the heart relaxes between the beats.
Peak flow	• Measured how quickly you can blow air out of your lungs. • it is measured in litters per min (L/min).
BMI	• Measures the amount of fat on your body in relation to your height to tell you if your weight is healthy.

B.	• What are health indicators?
Importance of understanding indicators	• Detect health problems at an early stage • Track improvements or deterioration in health • Make recommendations about health and treatments • Give advice about future health risks • Support individuals to make different lifestyle choices.
What are lifestyle indicators?	• These indicators can be used to assess risks to an individual's health and wellbeing now and in the future. • Professionals collect information about lifestyle choices by asking about a person's: • Weekly alcohol consumption • Smoking habits • Levels of physical activity and exercise.
What are physiological indicators?	• They show how well the body's systems are functioning. • Health professionals check a person's heath by taking measurements. • They compare the results with published guidance.

C.	Interpreting lifestyle data
Interpreting data on smoking 	• Smoking causes around 96,000 deaths in the UK annually. • Smoker under the age of 40 are 5 times more likely to have a heart attack than non-smoker. • Smoking causes 80% of deaths from lung cancer, 80% of bronchitis and 14% of deaths from heart disease. • More than 25% of all cancer deaths are caused by smoking. • On average a smoker will die 10 years earlier than a non-smoker. • Smokers are more likely to develop facial wrinkles. • Smoking is a cause of impotence and can lead to sperm abnormalities.
Interpreting data on alcohol 	• Strongly linked to at least 7 types of cancer • Alcohol-related liver disease accounts for 37% of liver disease and deaths. • 2/3s of cases of chronic pancreatitis are caused by heavy drinking • You are between 2 and 5 times more likely to have an accident or injury • Each drink per day increases the risk of breast cancer in woman between 7-13% • Men and woman should not drink more than 14 units a week and not all in one go.
Interpreting data on inactivity 	• Increased risk of breast cancer by 17.8% and colon cancer by 18.7% • Increased risk of type 2 diabetes by 13%. • Increased risk of coronary heart disease by 10.5% • Leads to obesity and joint pain • 16.9% of all premature deaths are caused by inactive lifestyle. • Active people have a lower risk of premature death. • People who are inactive visit their GP more often and they spend 38% more time in hospital.

What we are learning in LAB:

A. Physiological health indicators
B. What are health indicators?
C. Interpreting lifestyle data

A.	Physiological health indicators
Pulse	**Resting pule rate** : **Pulse rate during exercise:**
Blood pressure	• • • •
Peak flow	• •
BMI	•

B.	• What are health indicators?
Importance of understanding indicators	
What are lifestyle indicators?	
What are physiological indicators?	

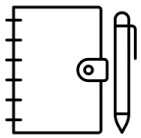
C.	Interpreting lifestyle data
Interpreting data on smoking 	
Interpreting data on alcohol 	
Interpreting data on inactivity 	

What we are learning in LAC:

A. What is a person-centred approach
B. Health improvement plan
C. Recommended action to meet health and wellbeing improvement goals
D. SMART targets for health improvement plan
E. Sources of support

A.	What is a person-centred approach.
Person-centred approach	A holistic approach that puts the individual at the heart of health care planning, so that the whole range of physical, intellectual, emotional and social health needs are met.
When planning for health improvements include:	• The needs: physical, intellectual, emotional and social. • The wishes: likes, dislikes, choices and desired health goals. • Circumstances: illness or disability, access to facilities, previous experiences, family and relationships, responsibilities.
Benefits of person-centred approach:	• Will feel involved • Is more likely to trust a health professional who listen to them • Will feel more secure • Is more likely to follow the plan and achieve the targets • Will take responsibility for their own health.

B.	Health improvement plan
What is it?	Health and welling improvement plans are often based on an individual's physiological and lifestyle indicators. Plans should be person-centred and include goals, actions and targets and possible sources of support.
The plan will identify:	• The health issues and goal • The recommended actions to take • A set of targets for health improvement • The supports that are needed • Possible obstacles to progress and way to overcome them.
Positive effects of a health improvement plan	• Be fitter • Loose weight • Have improved self-concept • Lower blood pressure, healthier heart • Reduced risk of cancer • Taking control of their health outcomes and reaching health goals



C.	Recommended action to meet health and wellbeing improvement goals 9	
	To lower blood pressure: • Eat five or more portions of fruit and veg a day • Cut out salt • Use relaxation techniques to reduce stress • Join a gym • Drink water alongside alcohol to reduce consumption	**To reduce BMI:** • Reduce fat and sugar intake • Do not exceed the recommended daily calories intake • Get off the buss a stop early and walk the rest of the way • Drink water instead of sugary drinks.
	To increase peak flow reading: • Half the number of cigarettes smoked each day • Use nicotine replacement therapies • Join an exercise or dance class.	**To reduce pulse rate and improve recovery time after exercise:** • Walk for half and hour at lunchtime • Drink decaffeinated drinks • Take up a physically active hobby • Join a yoga group.

D.	SMART targets for health improvement plan
Specific	The target must be clearly stated. It should say exactly what you mean, such as to 'lose 2 kg in weight in a week'. The target should be clear and not open to any misunderstanding.
Measurable	A target of to 'lose weight' is too vague. A specific amount must be stated so you can prove you have met your target.
Achievable/ attainable	If you are following a health and wellbeing improvement plan you must feel it is possible to achieve it. If you do not, you will probably give up before you have even started. An achievable target is to 'lose 1kg this week'. An unachievable target would be to 'lose 20kg this week'.
Realistic	The target set must be realistic in that you must be able to physically do it. It is not realistic to expect a person who is older and not very fit to run for 30 minutes a day to help weight loss, but it is realistic to ask the same of a fitter, younger person.
Time-related	The target must have a deadline, so that you know when you need to achieve the target by, and progress can be assessed.

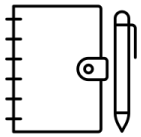
E.	Sources of support
Informal support	Informal support is the support an individual receives from partners, family and friends. It is usually the first form of support an individual experiences after and expected or unexpected life event. Informal support can provide reassurance, encouragement, advice, a sense of security, someone to talk through options with and practical help.
Professions (formal) support	Formal support may be provided by statutory care services (the state), private care services and charitable organizations. Professional support may include counsellors, teachers, careers advisers, occupational therapists, social workers and health specialists. Professional support may be needed to help people with a health condition, regain mobility, deal with life changes and emotions, get advice and information or change their lifestyle.
Voluntary support	Organizations offering voluntary support are charities, community groups and religious groups. At voluntary support services, many staff are volunteers (they work for free), but they also employ qualified people who are paid by donations. Community groups work at a local level to meet the needs of people living in a specific neighbourhood i.e. foodbanks. Religious groups are formed by people who share the same religious or spiritual beliefs but they help all people in need regardless of their beliefs and background i.e. a church run soup kitchen for the homeless.

What we are learning in LAC:

A. What is a person-centred approach
B. Health improvement plan
C. Recommended action to meet health and wellbeing improvement goals
D. SMART targets for health improvement plan
E. Sources of support

A.	What is a person-centred approach.
Person-centred approach	
When planning for health improvements include:	
Benefits of person-centred approach:	

B.	Health improvement plan
What is it?	
The plan will identify:	
Positive effects of a health improvement plan	



C.	Recommended action to meet health and wellbeing improvement goals 0	
	To lower blood pressure:	To reduce BMI:
	To increase peak flow reading:	To reduce pulse rate and improve recovery time after exercise:

D.	SMART targets for health improvement plan
Specific	
Measurable	
Achievable/ attainable	
Realistic	
Time-related	

E.	Sources of support
Informal support	
Professions (formal) support	
Voluntary support	

F.	What are the potential obstacle to implementing plans?
Emotional/ psychological- Lack of motivation	• A conflict between choices such as worrying that giving up smoking could result in weight gain • Other priorities in a person's life- such as getting married or bereavement. • Having negative attitude- believing change will be too difficult • Lack of progress for example losing eight quickly in the first weeks but then slowing down. • Having a blip- thinking there is no point in continuing the plan after briefly returning to an old lifestyle.
Emotional/ psychological- Low Self-concept	• People with low self-concept don't value themselves, • Feel powerless to change their lifestyle or that there's no point in starting because the task seems too big. • Some thin that because they were unsuccessful in other aspects of their life, they won't achieve their health goals. • They may not feel they have support and approval from family and friends even if they really do.
Emotional/ psychological- Acceptance of the current state	• People my accept their present health problems or lifestyle choices, as it Is easier to stay the same than to make changes. • Have no incentive to make a change because they do not understand the health risks. • Have no desire to change, for example, if they are happy with their weight or don't want to give up smoking.
Time constraints	People find that they do not have the time to achieve their health improvements targets because of: • Care of young children, family members that are not well. • Regular and additional work and study commitments • Domestic chores • Medical appointments
Availability of resources	Financial obstacles: • Gym memberships, entry fee for a swimming pool • Cost of attending exercise classes • Cost of travel to the gym. pool or to attend health appointments • Higher costs of some healthy foods. • Lack of and the cost of exercise equipment
Unachievable targets	• Expectations too high • Targets are not clear • There are too many targets • Timing is wrong/poor • Targets are not suitable for the individual • Fear of not being able to meet targets • Not being in the right frame of mind to commit to the plan, e.g. due to depression.
Lack of support	• Diet- find it difficult if a person on a healthy eating plan is surrounded by others that eat junk food or tempted by the chocolate and biscuits in the cupboard, Family and friends go out for meals instead of doing other activities. • Smoking- friends and family smoking and offering them cigarettes. Lacking will power to quit. • Alcohol consumption- someone that is used to drinking with family and friends will find it difficult to stop without their support. It would be hard to quit if the family and friends drink wine with their meals, friends centre a night out around heavy drinking at pubs and clubs.
Ability, disability and addiction	• Understand what they need to do • Learn how to make the required changes in their lives. • Any places the person uses are wheelchair accessible • Any exercise advised is wheelchair friendly. • If stop smoking, then can put on weight- put people off. • Like the way alcohol makes them feel but cant admit that they have a problem

G.	What are the possible obstacles to accessing services?	
Type of obstacle	**Possible obstacles**	**Suggestions to overcome obstacles**
Geographical	• Service is difficult to get to because of poor bus or train services.	• Arrange hospital transport • Suggest telephone helplines or internet support groups.
Financial	• Charges to use the services • Time off from work would mean loss of pay	• Check for entitlements, such as medicines and treatments • Direct the person to advice on benefits and employee rights.
Psychological	• Fear of being judged because there is stigma around a health problem (mental health, obesity)	• Talk about concerns and reassure • Direct the person to a charity that supports people with a particular health problem.
Physical	• Difficulty getting into the buildings where the service is provided (no wheelchair access). • No where to park near the service	• Be aware of services that are adapted for easy access • Ask a friend or family member to drop the person off at the service
Personal needs	• Communication difficulties because of pool language skills, sensory or learning disability . • Concern that cultural needs are not understood	• Provide support services that meet the person's needs, such as a BSL signer, interpreter, advocate • Use anti-discriminatory practice and encourage others to do so
Resources	• Limits on services, such as support aids and equipment • Staff shortages, leading to long waits for appointments and support.	• Suggest sources of second-hand equipment • Look for alternative strategies, for example an exercise DVD if there are no places at an exercise class.

F.	What are the potential obstacle to implementing plans?
Emotional/ psychological- Lack of motivation	
Emotional/ psychological- Low Self-concept	
Emotional/ psychological- Acceptance of the current state	
Time constraints	
Availability of resources	
Unachievable targets	
Lack of support	
Ability, disability and addiction	

G.	What are the possible obstacles to accessing services?	
Type of obstacle	Possible obstacles	Suggestions to overcome obstacles
Geographical		
Financial		
Psychological		
Physical		
Personal needs		
Resources		

SWINDON ACADEMY READING CANON

Year 7

- The Canterbury Tales
- War Horse
- Adventures of a Young Naturalist
- A Monster Calls
- The Pearl
- Number the Stars
- The Hunger Games
- Chinese Cinderella
- Sir Gawain and the Green Knight

Year 8

- The Dark Lady
- Trash
- The Diary of a Young Girl
- Ghost Boys
- The Amazing Maurice
- The Bone Sparrow
- Salt to the Sea
- The Giver
- Witch Child

Year 9

- Skin
- I am Malala
- Noughts and Crosses
- Liccle Bit
- Fahrenheit 451
- The Black Flamingo
- One
- Simon vs the Homo Sapiens Agenda
- Long Way Down
- Northern Lights
- The Boy Who Steals Houses
- The Woman in Black
- The Book Thief

Year 10

- The Underground Railroad
- The Curious Incident of the Dog in the Night-Time
- The Hate U Give
- Rani and Sukh
- Pigeon English
- The Boxer
- 1984
- Orangeboy
- The Outsiders
- The Art of Being Normal
- A Selection of Short Stories
- To Kill a Mockingbird

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