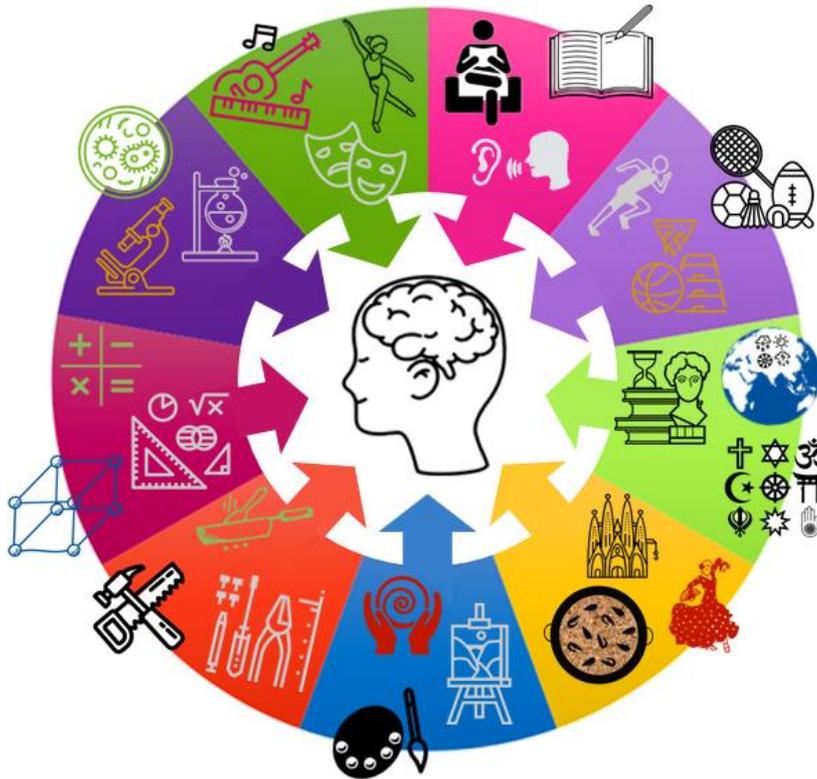


100% book - Year 11 Booster

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

Term 3



Swindon Academy 2022-23

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."

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.

The image shows a screenshot of the Epraise website. On the left is a 'Planner' for the week of 20th May to 26th May 2020, with a grid for different subjects. On the right is a 'Knowledge Organiser' for 'What is particle theory?'. It contains various questions and answers related to particle theory, states of matter, and the law of conservation of mass.

Step 2

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

The image shows a printed page from a knowledge organiser. It has several sections: 'What is particle theory?', 'What is the law of conservation of mass?', and 'What are the different changes of state?'. Below these are diagrams for solid, liquid, and gas states. A student has handwritten '29th May 2020' and 'Particle theory' in a blue-lined prep book over the page.

Step 3

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

The image shows a student's handwritten notes in a blue-lined prep book. The student has copied the date '29th May 2020' and the title 'Particle theory'. They have also written out definitions for the states of matter: 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other particles can slide past each other and move around', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'.

Step 4

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

The image shows a student's handwritten notes in a blue-lined prep book. They have repeated the definitions for solid, liquid, and gas three times, as instructed in Step 4.

Step 5

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

The image shows a printed page from a 'quizzable' knowledge organiser. It has sections for 'What is particle theory?', 'What is the law of conservation of mass?', and 'What are the different changes of state?'. Below these are diagrams for solid, liquid, and gas states. A student has handwritten 'Self quizzing' and 'Arrangement/movement of matter' in a blue-lined prep book over the page.

Step 6

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

The image shows a student's handwritten notes in a blue-lined prep book. They have corrected their definitions from Step 3. For example, they added 'far apart' to the gas definition and marked the liquid definition with a checkmark. They also marked the gas definition with an 'X' for a correction.

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

ENGLISH –Poetry cluster 2: Conflict – Sets 6-7

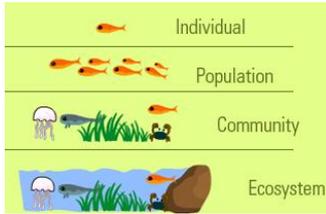
Key Vocabulary		Poem	Message	Form/ structure
Patriotism	Being devoted to your country	Charge of the Light Brigade	<ul style="list-style-type: none"> Tennyson glorifies war. He focusses on the heroism of the soldiers as opposed to the tragedy of their death and celebrates the soldier's loss of life as an act of patriotism. 	<ul style="list-style-type: none"> Written in ballad form - sung to help people remember it. It is written in dactylic dimeter - one stressed syllable followed by two unstressed syllables - the DUM-de-de DUM-de-de meter mirrors the galloping hoof beats of the horses.
Glorify	To present something as admirable and great	Alfred Lord Tennyson.	<ul style="list-style-type: none"> He celebrates the selflessness and courage of the soldiers who gave their lives in the war and believes they should be honoured. It could be suggested, that the poem also acts as a cautionary tale on how leadership and the misuse of power can have catastrophic consequences such as mass loss of life. 	
Disillusionment	A feeling of disappointment when discovering that something is not as good as one believed it to be	Exposure Wilfred Owen	<ul style="list-style-type: none"> The true enemy of the poem is the weather that causes endless suffering. The soldiers in the trenches are exposed to the relentless elements. Owen's message is that the soldiers are suffering in the trenches as a result of the brutal conditions. They are being bombarded by relentless weather which causes them pain and suffering. This suffering is unescapable, and the soldiers are forced to stay awake in the cold and wait for a battle that never comes. Some may argue that Owen is criticising the British military for allowing their soldiers to live and die in these horrific conditions. 	<ul style="list-style-type: none"> On a surface level, it seems to have order – 8 stanzas with 4 long lines and 1 short one. This may represent the same slow, unending pattern of the lives of the soldiers. There is irregular rhythm and laboured rhyme scheme – no set pattern to syllables in lines. This may represent the war effort – on the outside, it appeared coordinated and assembled, but to the soldiers on the inside, it was directionless and disjointed.
Exposure	Being unprotected against risk or danger	Bayonet Charge Ted Hughes	<ul style="list-style-type: none"> Hughes suggests war is horrific. It is physically and mentally devastating and is so awful it can't be described. War has the power to destroy empathy and our sense of self. The issue of propaganda is highlighted by Hughes as cruel and misleading. Conflict is presented as pointless and repetitive; we do not learn from previous conflicts or avoid making the same mistakes. He also suggests that conflict, and the actions of humans, destroys nature. Our actions are selfish and we do not consider the damage we are causing. 	<ul style="list-style-type: none"> Starts in media res – we sense the soldier's confusion and disorientation as he is sent in to action. Enjambment and caesura used to create those same feelings for the reader.
Relentless	When something harsh and severe will not stop	Poppies Jane Weir	<ul style="list-style-type: none"> Conflict is presented as causing trauma. The poem deals with a mother's loss of her son to war and the void that this leaves. Throughout the poem, the speaker deals with the realities of war. The speaker highlights a parent's worst fear; the death of their child. The speaker addresses both the death of her child in war, as well as the inner conflict of holding onto your child or letting them become more independent. Furthermore, Weir presents conflict as causing loss and subsequent nostalgia. The speaker in the poem lives through her memories of her child and there is a theme of remembrance. 	<ul style="list-style-type: none"> Enjambement – joins two stanzas together, but there is a break in the middle, reflective of the broken mother when her son leaves. Caesura – makes the reader pause, highlighting the fractured mind of the mother in the poem. The lack of regularity/organisation reflects the chaotic structure of the lives of people left behind when their loved ones go to war Past and present are intermingled
Apathetic	Feeling no interest, enthusiasm or concern	War Photographer Carol Ann Duffy	<ul style="list-style-type: none"> Duffy wants to show how our sympathy is short-lived. She highlights the consequences of regularly seeing war images: we become desensitised. Humans are presented as lacking empathy and being selfish: if they are not directly affected by a conflict, they don't care about it. Duffy presents warzones as horrific places to live and reminds us that it is not only soldiers who die in conflicts, but civilians also suffer. She makes a point of showing that the most vulnerable people are at risk – children should be protected and safe, but she shows the terrors they can face when caught up in war and reminds us that people lose loved ones and can do nothing to save them. 	<ul style="list-style-type: none"> The poem is laid out in four regular six-line stanzas, with each stanza ending in a rhyming couplet. This structure is interesting since its very rigid order contrasts with the chaotic, disturbing images described in the poem. This organisation mirrors the actions of the photographer, who lays out his films in ordered rows, as though in doing so he can in some way help to restore order to this chaotic world.
Obedience	Doing as you are told			

ENGLISH –Poetry cluster 2: Conflict- Sets 6-7

Key Vocabulary		Poem	Message	Form/ structure
Patriotism	Charge of the Light Brigade	Alfred Lord Tennyson.	<ul style="list-style-type: none"> Tennyson glorifies war. He focusses on the _____ of the soldiers as opposed to the _____ of their death and celebrates the soldier's loss of life as an act of _____. He celebrates the selflessness and _____ of the soldiers who gave their lives in the war and believes they should be _____. It could be suggested, that the poem also acts as a _____ tale on how leadership and the misuse of power can have _____ consequences such as mass loss of life. 	<ul style="list-style-type: none"> Written in _____ form - sung to help people remember it. It is written in _____ dimeter - one stressed syllable followed by two unstressed syllables - the DUM-de-de DUM-de-de meter mirrors the galloping hoof beats of the _____.
	Glorify	Exposure	Wilfred Owen	<ul style="list-style-type: none"> The true enemy of the poem is the _____ that causes endless suffering. The soldiers in the trenches are exposed to the _____ elements. Owen's message is that that the soldiers are suffering in the trenches as a result of the _____ conditions. They are being _____ by relentless weather which causes them pain and _____. This suffering is unescapable, and the soldiers are forced to stay awake in the _____ and wait for a battle that never comes. Some may argue that Owen is criticising the _____ for allowing their soldiers to live and die in these horrific conditions.
Disillusionment	Bayonet Charge	Ted Hughes	<ul style="list-style-type: none"> Hughes suggests war is _____. It is physically and mentally devastating and is so awful it can't be _____. War has the power to destroy _____ and our sense of self. The issue of propaganda is highlighted by Hughes as _____ and misleading. Conflict is presented as pointless and _____; we do not learn from previous conflicts or avoid making the same mistakes. He also suggests that conflict, and the actions of humans, destroys _____. Our actions are selfish and we do not consider the damage we are causing. 	<ul style="list-style-type: none"> Starts in _____ – we sense the soldier's confusion and disorientation as he is sent in to action. Enjambment and _____ used to create those same feelings for the reader.
Exposure	Poppies	Jane Weir	<ul style="list-style-type: none"> Conflict is presented as causing _____. The poem deals with a mother's loss of her son to war and the void that this leaves. Throughout the poem, the speaker deals with the realities of war. The speaker highlights a parent's worst _____; the death of their child. The speaker addresses both the death of her child in war, as well as the inner conflict of holding onto your child or letting them become more _____. Furthermore, Weir presents conflict as causing loss and subsequent _____. The speaker in the poem lives through her memories of her child and there is a theme of remembrance. 	<ul style="list-style-type: none"> Enjambement – joins two stanzas together, but there is a break in the middle, reflective of the _____ mother when her son leaves. Caesura – makes the reader _____, highlighting the fractured mind of the mother in the poem. The lack of regularity/organisation reflects the _____ structure of the lives of people left behind when their loved ones go to war Past and present are intermingled
Relentless	War Photographer	Carol Ann Duffy	<ul style="list-style-type: none"> Duffy wants to show how our sympathy is _____. She highlights the consequences of regularly seeing war images: we become _____. Humans are presented as lacking empathy and being _____; if they are not directly affected by a conflict, they don't care about it. Duffy presents warzones as horrific places to live and reminds us that it is not only soldiers who die in conflicts, but _____ also suffer. She makes a point of showing that the most vulnerable people are at risk – _____ should be protected and safe, but she shows the terrors they can face when caught up in war and reminds us that people lose loved ones and can do nothing to save them. 	<ul style="list-style-type: none"> The poem is laid out in _____ regular six-line stanzas, with each stanza ending in a rhyming couplet. This structure is interesting since its very _____ order contrasts with the chaotic, _____ images described in the poem. This organisation mirrors the actions of the photographer, who lays out his films in ordered rows, as though in doing so he can in some way help to restore order to this chaotic world.
Apathetic				
Nostalgia				
Obedience				

Ecosystems

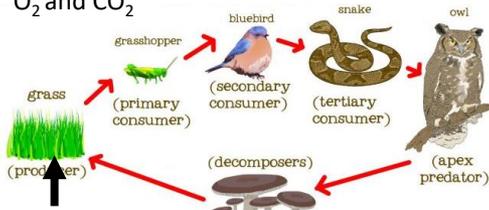
An ecosystem is all the living organisms within an area (community) plus the physical habitat



Interdependence

Organisms rely on each other for...

- Food
- Shelter / nesting sites
- Seed dispersal
- O₂ and CO₂



photosynthesis

Competition

Competition between organism occurs when resources within an ecosystem are limited.

Animals and plants compete for different resources.

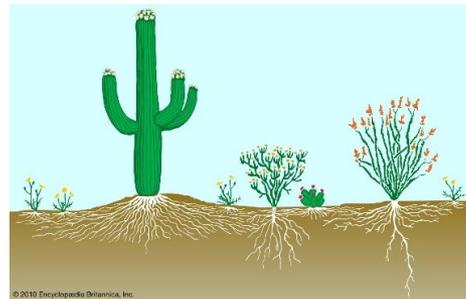
Plants	Animals
Light	Food
Space	Mates
Minerals ions	Territory
Water	

Biotic and Abiotic Factors

Factors that affect the number of organisms

Biotic – living	Abiotic – non-living
<ul style="list-style-type: none"> • availability of food • new predators arriving • new pathogens • one species outcompeting another so the numbers are no longer sufficient to breed. 	<ul style="list-style-type: none"> • light intensity • temperature • moisture levels • soil pH and mineral content • wind intensity and direction • carbon dioxide levels for plants • oxygen levels for aquatic animals.

Plant adaptations



Plants in desert areas have :

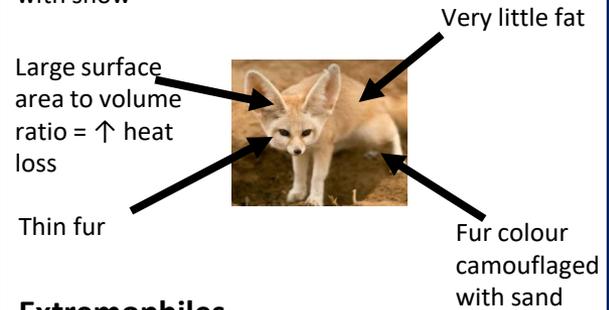
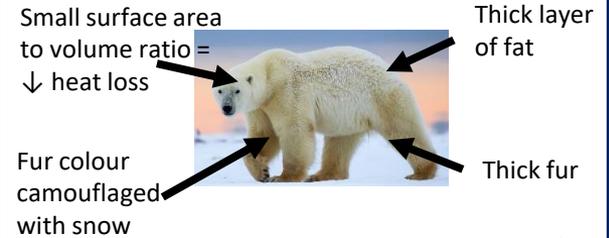
- deep roots to maximise water uptake
- thin/no leaves to minimise water loss
- Spines to stop them being eaten

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.

Science T3 Y11 B5.16 Mainstream Adaptations, interdependence, and competition

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 resources plants compete for

8. Name two resources animals compete for

1. Name two biotic factors that can affect organisms within a habitat

2. What does the term 'abiotic' mean?

3. Name two abiotic factors

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?

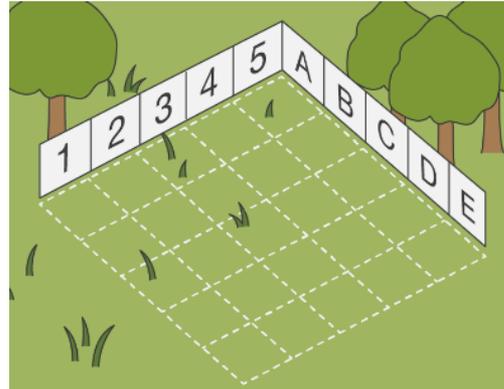
6. Give an example of an extremophile

Science T3 Y11 B5.16 Mainstream Adaptations, interdependence, and competition

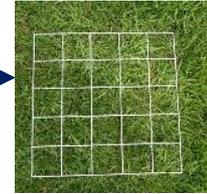
Required practical – Estimating Populations (Measuring abundance)

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 0.25m² 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:

$$\frac{\text{area of site}}{\text{area of quadrat}} \times \text{mean}$$

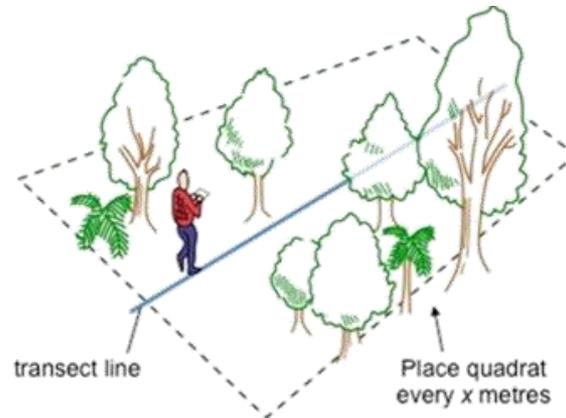
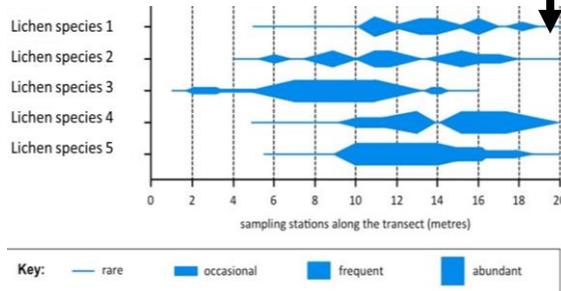


a quadrat



Required Practical – How populations may change over a distance (Measuring distribution)

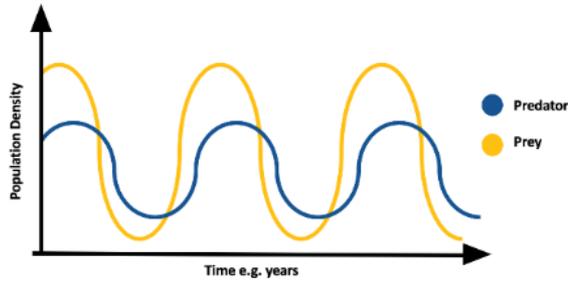
1. Place tape measure (a transect line) through ecosystem being investigated.
2. Place quadrat at regular, random intervals along the transect line and count the number of particular organisms.
3. Draw a distribution graph of your results. (They might look like this.)



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?

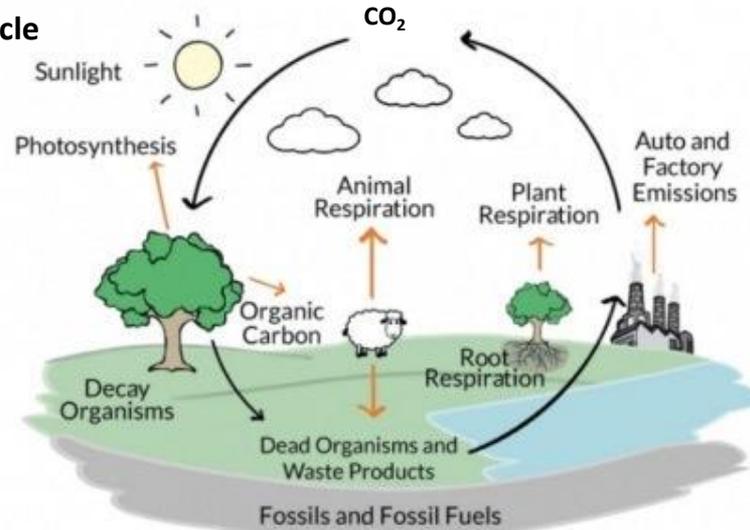
Predator-Prey Relationships



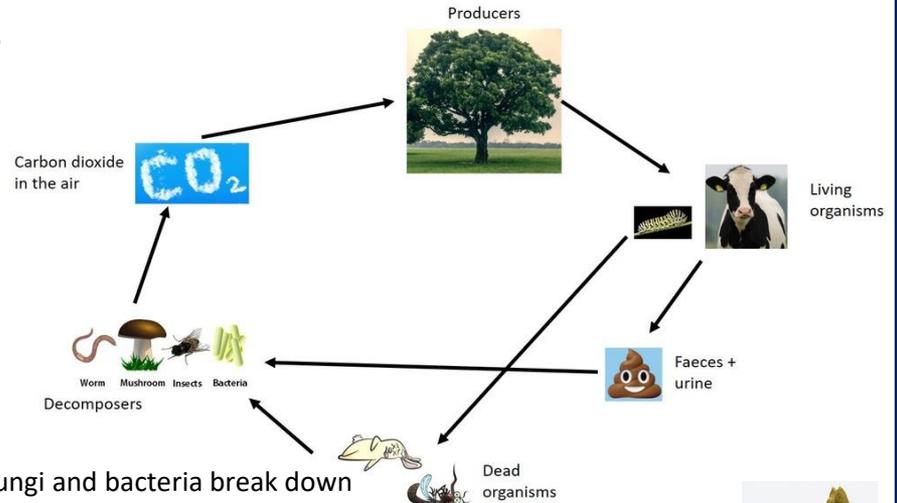
Population increases and decreases follow similar pattern in a cycle because they affect each other – more prey = more food for predator.

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

The Carbon Cycle

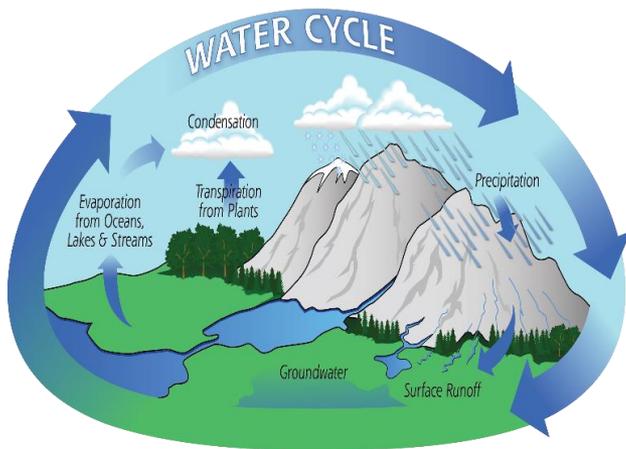


The Decay Cycle



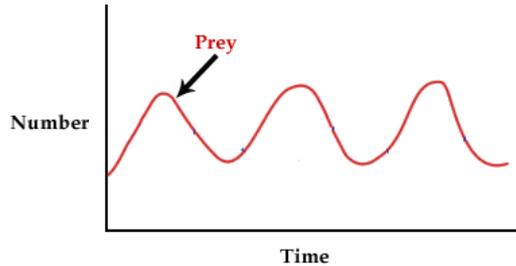
Microbes such as fungi and bacteria break down dead or dying material. This returns carbon to the atmosphere as carbon dioxide and mineral ions to the soil.

The Water Cycle



Science T3 Y11 B5.17 Mainstream – Organising an ecosystem

1. Sketch the line to show how the predator population would change on the graph below



1. What are the main stages in the water cycle?

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?

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

Science T3 Y11 B5.18 Mainstream Biodiversity and ecosystems

Biodiversity

Biodiversity is a measure of the variety of different organisms living in an area/ecosystem.

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'. This can cause sea level rises, flooding, changes in species distribution, changes in migration patterns.

Maintaining Biodiversity

- breeding programmes for endangered species
- protection of rare habitats
- reintroduction of hedgerows
- reduction of deforestation and CO₂ emissions
- increased recycling to avoid landfill

Water pollution

- Fertilisers: nitrates from fertilisers are easily washed from the soil into stream, lakes and river.
- Untreated sewage: contains high levels of nitrates and can be washed into rivers or pumped into the sea.
- Toxic chemicals: from landfill sites can also be washed into waterways.

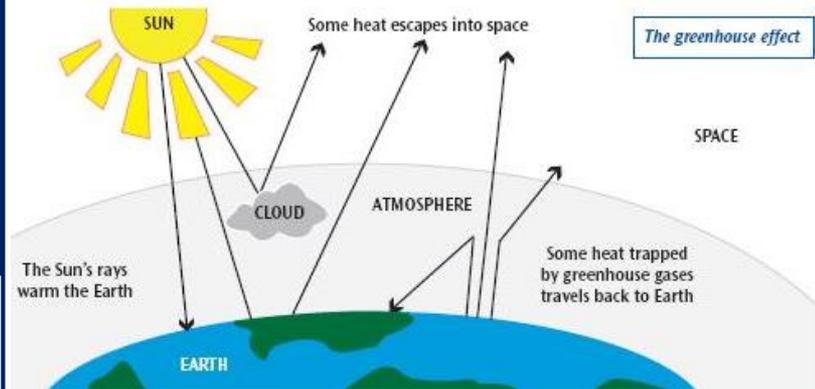
Land pollution

- Household waste: toxic chemicals from landfill sites can leak into the soil.
- Industrial waste: toxic chemicals from industrial process can poison large areas.
- Agricultural waste: pesticides and herbicides get into the soil and can be washed into streams and rivers. They can also become part of the food chain and be passed up the food chain causing dangerous levels in the top predators (bioaccumulation).

Air pollution

- Acid rain: sulphur dioxide and nitrogen dioxides dissolve in rain turning it acidic.
- Smog: a haze caused by smoke particles and acidic gases.
- Smoke pollution: particulates (tiny solid particles) reflect the sunlight causing global dimming.

The greenhouse effect



1. What is biodiversity ?

1. What is the impact of waste management on biodiversity?
2. What is the impact land use on biodiversity?
3. What is the impact of deforestation biodiversity?
4. What is the impact of global warming on biodiversity?

1. How is biodiversity maintained?

1. Give three causes of water pollution?

1. Give three causes of land pollution?

1. Give three examples of air pollution?

1. What is the greenhouse effect?

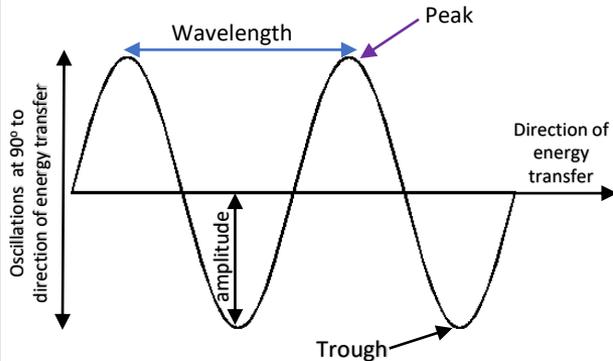
Science T3 Y11 P4.12 Mainstream Wave Properties

Transverse Waves

- Oscillations (vibrations) **perpendicular** to direction of energy transfer.

Examples:

- Electromagnetic waves
- Ripples on water.

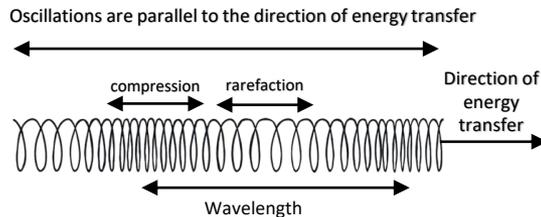


Longitudinal Waves

- Oscillations (vibrations) are **parallel** to direction of energy transfer.

Examples:

- Sound waves



Sound waves have areas of compression and rarefaction.

Compression = particles pushed closer together

Rarefaction = particles are further apart

Properties of Waves

Amplitude – maximum displacement from undisturbed position.

Wavelength – distance from a point on one wave to the equivalent point on the next wave.

Frequency – number of waves passing a point each second.
Frequency is measured in Hertz (Hz)
1Hz = 1 wave per second.

Wave speed – the speed at which energy is transferred through a medium.

$$v = f \times \lambda$$

You need to memorise

↑ wave speed (m/s) ↑ frequency (Hz) ↑ wavelength (m)

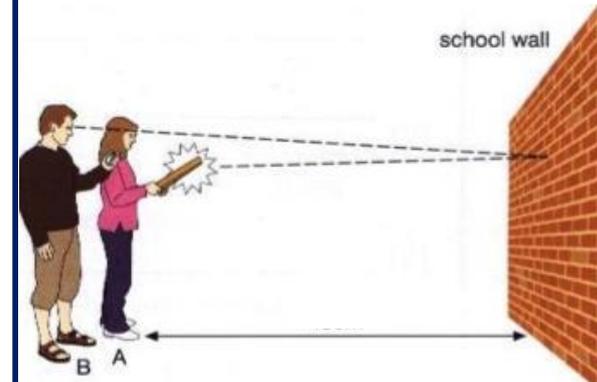
Measuring speed of sound waves in air

- Stand 50m from a large flat wall.
- One person claps/bangs bricks
- Measure time taken to hear the echo.
- Calculate speed of sound using:

$$\text{Speed} = \text{distance} \times \text{time}$$

- Remember distance is double (in this case, 100m) as it travels to the wall and back.
- Take several measurements and calculate the mean to reduce error.

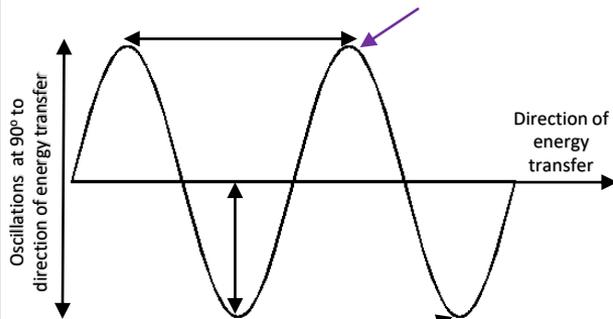
This is unlikely to produce an accurate value for sound in air (330 m/s) as the reaction time of the person operating the stopwatch is likely to be a significant proportion of the time measurement.



Science T3 Y11 P4.12 Mainstream Wave Properties

1. How are transverse waves produced?

2. Label the wave features below.



1. Describe a longitudinal wave

2. Give an example of a longitudinal wave.

3. Label an area of compression and rarefaction in the diagram below



1. Define the following:

Amplitude

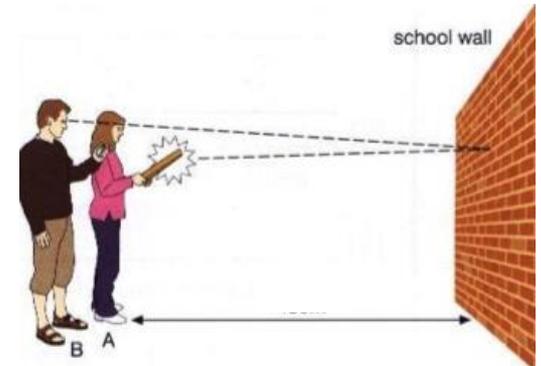
Wavelength

Frequency

2. What are the units for frequency?

3. What is the equation linking frequency, speed and wavelength?

1. Describe a method to investigate the speed of sound waves in air.



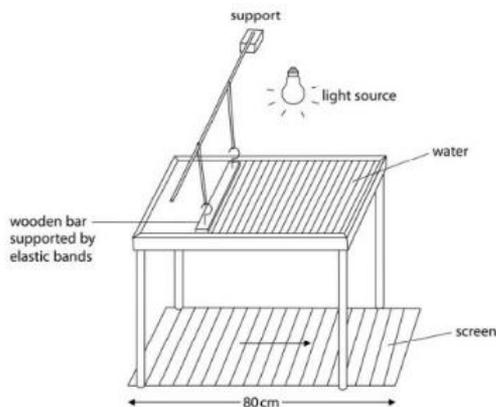
2. What is the biggest source of error in this investigation?

3. What is the speed of sound in air?

Measuring waves in a liquid

Equipment

- Ripple tank
- Measuring ruler
- Stop watch



Method

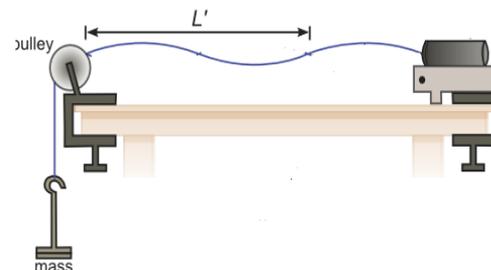
1. Set up the equipment as shown and turn on the motor to produce low frequency waves so that they are able to be counted.
2. Adjust the lamp until pattern is seen clearly on white screen underneath
3. Use a ruler to measure the length of a number of waves (e.g 10) and divide the length by the number of waves to give wavelength. This improves the accuracy of the measurement.
4. Record the waves using a camera or mobile phone. Count the number of waves passing a point in 10 seconds using a stopwatch and slowing the recording down.
5. Divide the number of waves counted by the time to give frequency.
6. Use $v = f \times \lambda$ to calculate the wave speed. Repeat for different frequencies of the motor.

Exp	Length of 10 waves (cm)	Wavelength of 1 wave (cm)	Number of waves in 10 s	Frequency (Hz)	Speed (cm/s)
1	65	0.65	121	12.1	7.9
2	50	0.5	155	15.5	7.9
3	42	0.42	187	18.7	7.9

Measuring waves in a solid

Equipment

- string, vibration generator, hanging mass set and pulley



Method

1. Set up the equipment as shown.
2. Turn on the vibration generator
3. Adjust the length of the string until a standing wave is achieved
4. The frequency can be read from the vibration generator
5. Measure as many complete waves as possible using a ruler
6. Divide the length by the number of waves to give wavelength
7. Calculate speed using $v = f \times \lambda$

Conclusion:

In both experiments, when you increase the frequency, the wavelength decreases – the speed remains the same in the same medium

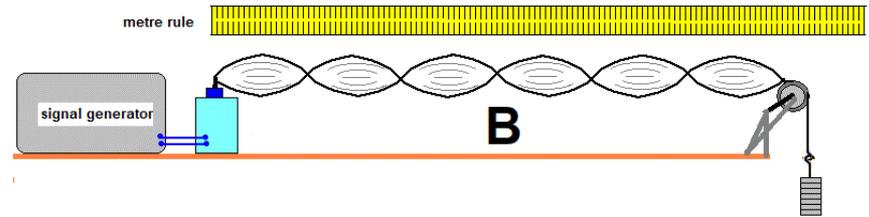
Science T3 Y11 P4.12 Mainstream Wave Properties Required Practical – investigating wave in a solid and a ripple tank

1. Complete the table below to explain the method in calculating the speed of waves in a ripple tank.

Step	Reason
Fill the ripple tank with water, switch on a lamp and place white card underneath the tank.	
Switch on the motor and adjust it to give low frequency waves	
Place a stopwatch next to the card and record the waves, with the stopwatch in view for 10 seconds	
Play the recording in slow motion, count the number of waves passing a certain point and divide this by 10	
Measure the length of 10 waves by taking a picture of the card with a ruler on it.	
Divide the length by 10	

2. If the length of 10 waves is 55cm, what is the wavelength of 1 wave?
3. If there are 210 waves in 10 seconds, what is the frequency?

1. When investigating waves produced by a vibration generator on a string, how do we know the frequency?

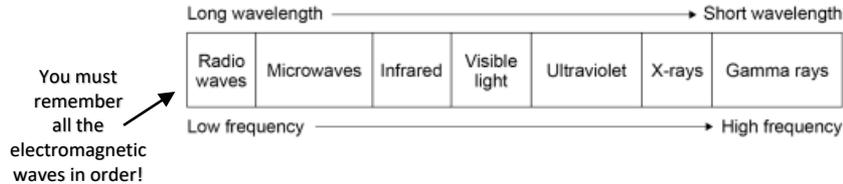


2. How many complete waves are shown in the image above?
3. If the length from the generator to the pulley was measured at 66 cm, what is the wavelength?
4. Why is it better to measure multiple waves and divide to find wavelength rather than measure one single wave?
5. What happens to wavelength when frequency increases?
6. What happens to wavelength when frequency decreases?

Science T3 Y11 P4.13 Mainstream Electromagnetic waves

The Electromagnetic Spectrum

- All **transverse waves**
- Transfer energy from the source of waves to an absorber.
- All travel at the same **velocity** through a vacuum or air – **speed of light**.
- Speed of light = 300,000,000 m/s



Wave	Use	Other information
Radio waves	Television and radio	Easily transmitted through the air. Harmless if absorbed by the body.
Microwaves	Satellite communications and cooking food	Can be harmful when internal body cells become heated by over exposure.
Infrared	Electrical heaters, cooking food and infrared cameras	Can cause burns to skin
Visible light	Fibre optic communications	Only EM wave detectable by human eye.
Ultraviolet	Energy efficient lamps, sun tanning	Causes skin tanning and can lead to burns or skin cancer .
X-rays	Medical imaging and airport security scanners.	Very little energy is absorbed by body tissues. Passes through the body.
Gamma rays	Sterilising medical equipment or food and treatment for some cancers.	They can lead to gene mutation and cancer.

1. State two properties of electromagnetic waves.
2. Write the EM spectrum in order of **increasing** wavelength
3. Write the EM spectrum in order of **increasing** frequency
4. How fast do electromagnetic waves travel?
5. State the uses of:
 - a) radio waves
 - b) microwaves
 - c) infrared
 - d) visible light
 - e) ultraviolet
 - f) x-rays
 - g) gamma rays

Ray diagrams

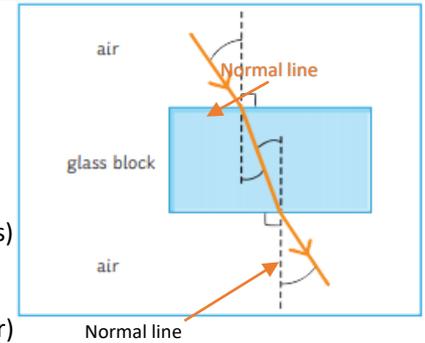
- You need to construct **ray diagrams** to show how a wave is **refracted** at the boundary of a different medium.

Less dense → More dense (e.g. air to glass)

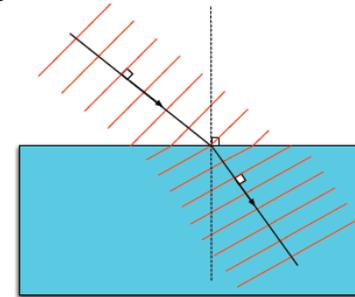
- Ray **slows down** and bends **towards the normal line**.

More dense → Less dense (e.g. glass to air)

- Ray **speeds up** and bends **away from the normal line**.



The ray bends because different parts of the wavefront cross the boundary at slightly different times –



If wave hits medium at an angle of 90° then the ray will slow down but will not be refracted.

1. What happens when a ray goes from a less dense → more dense medium?
2. What happens when a ray moves from a more dense → less dense medium?
3. What is the line at 90° to a surface called?
4. What happens if a ray hits a medium at 90°?

1. What type of current do radio waves create when absorbed?
2. What is the frequency of the current produced by a radio wave of frequency 250Hz?

Aim

Investigate how the amount of infrared radiation **emitted** (given out) by a surface depends on the nature of that surface.

In this investigation you are finding out which type of surface emits the most infrared radiation:

- **Dark and matt**
- **Dark and shiny**
- **Light and matt**
- **Light and shiny**

Method

1. Place **Leslie cube** on a heat proof mat.
2. Once the kettle has boiled, fill the Leslie cube with water.
3. Hold the infrared thermometer 5cm from the first surface
4. Record the temperature
5. Repeat the experiment three times on each surface and calculate mean for each surface.

Independent variable: surface

Dependent variable: temperature of the air (infrared radiation emitted)

Control variables: Temperature of the water inside, the distance between the cube surface and the infrared thermometer



In this investigation you are finding out which type of surface absorbs the most infrared radiation:



Method

1. Fill a black and a silver can with water from the tap.
2. Take the temperature of the water in each can
3. Place the infrared thermometer 5cm from the cans
4. Leave for at least 10 minutes
5. Record the temperature of the water in each can and calculate the rise in temperature

Independent variable: surface of the can

Dependent variable: Temperature increase of the water (infrared radiation absorbed)

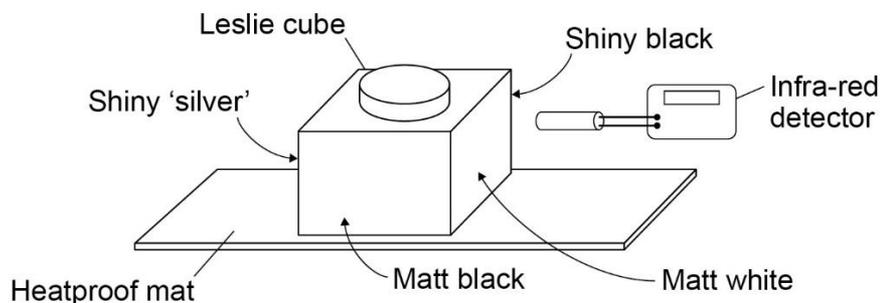
Control variables: Temperature of the water inside, the distance between the cube surface and the infrared thermometer

Conclusion

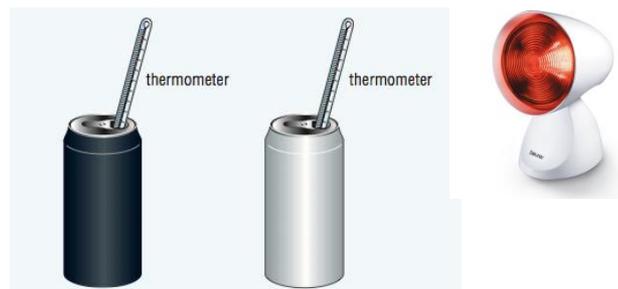
Black matt surfaces absorb and emit the most infrared radiation.

White/silver and shiny surfaces are poor emitters and poor absorbers of infrared radiation

1. Describe how you could use the equipment below to investigate the emission of infrared by different surfaces.



1. A student was investigating the amount of infrared radiation absorbed by water in cans with different surfaces.



Name the...

Independent variable:

Dependent variable :

Control variables :

2. What kind of surfaces are the best emitters of infrared radiation?

3. Why does the water in the silver can heat up less than the black can?

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

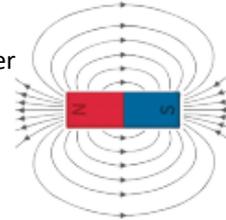
- Produces its own magnetic field.
- Magnetism cannot be turned on or off.

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

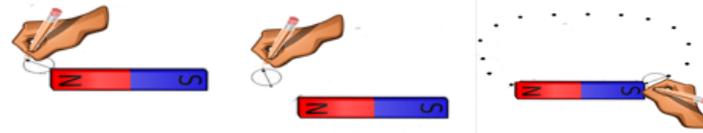
- Earth produces a magnetic field.
- Magnetic compasses use this to help navigation.
- The core of the Earth is made of **iron** (magnetic).

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!

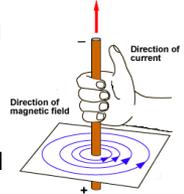
1. Place the bar magnetic in centre of paper.
2. Place a plotting compass at one end of the magnet.
3. Put a pencil dot at the place the compass arrow is pointing to
4. Move the compass to line up the tail of the compass needle to the dot you just made.
5. Repeat until you reach the other end of the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



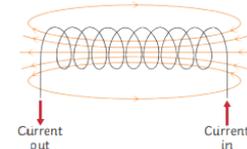
6. Join the dots using a line – this is the magnetic field line. Mark on the direction the arrow pointed – it should run **N→S**

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.

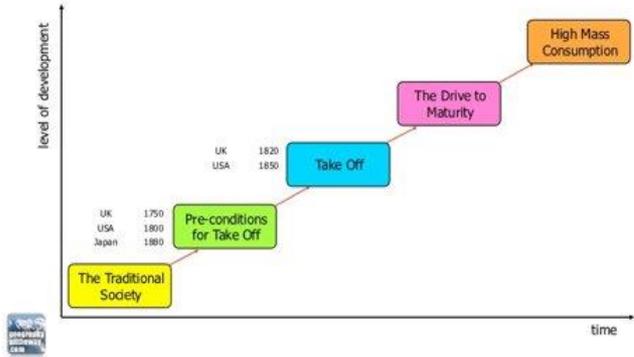
Science T3 Y11 P4.15 Mainstream Electromagnetism

<ol style="list-style-type: none">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?	<ol style="list-style-type: none">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?	<ol style="list-style-type: none">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)
<ol style="list-style-type: none">1. What are the two types of magnets?2. Name two differences between these two types of magnets.	<ol style="list-style-type: none">1. Describe a method to plot the magnetic field of a bar magnet.	<ol style="list-style-type: none">5. What is an electromagnet?6. What is meant by induced magnet?7. State 2 uses of electromagnets.

Where is Rio?

Rio de Janeiro is located in South America. It is located in south Brazil. It borders the Atlantic Ocean.

- G. Why is Rio de Janeiro a global city?**
- Until 1960 Rio was the capital of Brazil however this has not changed to Brasilia. Rio is still very important.
 - Brazil is in an Emerging Developing Country. This means that it is experiencing rapid economic growth
 - Rio is a mega-city. This means it has a population of over 10 million people.
 - The exact population of Rio is unknown however it is over 18 million.
 - Rio is the cultural capital of Brazil with an annual carnival and over 50 museums. It is also a UNESCO World Heritage Site.
 - In 2014 the world cup took place in Rio
 - In 2016 Rio hosted the Olympics.



- F. What is Rostow's model?**
- Human Influence**
- Currently Nigeria is in stage 3. This is where secondary industries dominate.
 - In the future Nigeria may develop to stage 4
 - They will do this by becoming more self-reliant by improving education.
 - This will lead to increase in tertiary employment such as nursing and IT support.

Positive impacts of urbanisation

- Employment opportunities in banking, finance and insurance.
- Good infrastructure (roads) which link different areas together.
- Better quality of life
- More jobs in secondary and tertiary sectors

Year 11 OCR A Term 1 – People of the world

- H. Where do people in Rio come from?**
- Migration accounts for 65% of urban growth in Rio de Janeiro. Largely people come from Europe, in particular Portugal because they speak Portuguese in Rio.
 - However, large numbers of people come from other parts of Brazil including the Amazon Basin because there are better jobs, higher income, improved medical care and education.
 - People also travel from other countries in South America- Argentina/ Bolivia due to the cultural opportunities in Rio.
 - Many people come from the USA and UK. These are largely people who are highly skilled and are attracted due to the growing secondary and tertiary industry (specifically in oil exploration).
 - Many people come from China and Japan, this is because Rio de Janeiro has a growing finance and banking industry which is well paid.

I. How has migration influenced the character and way of life within Brazil?

Copacabana Beach: The beaches in Brazil are stunning and so are the natural surroundings. Rio is one of the most visited cities in the southern hemisphere. It is a UNESCO world Heritage Site which means that it should be protected from environmental harm.

Crime and government: Due to over population, there are not many jobs which means that many people must resort to crime. As a result, gangs often rule over the favelas. Police have been sent in to pacify these slum areas (make peaceful) with the aim to improve quality of life for people living there.

Negative impacts of urbanisation

- 40% of people living in favelas do not have a job.
- Due to unemployment there's not much tax being paid by a large proportion of the population.
- Not enough houses – 40% of population live in favelas (illegal squatter settlements).
- Only 50% of people have access to healthcare.
- Air pollution – 5,000 deaths/year

K.	
Sustainable Management in Rio- Transport	Due population growth, means that the use of cars has grown by 40% in the last 10 years. They have expanded the public transport system which is a metro that runs under the bay and connects various parts of Rio. More and more people are using the metro system and buses; however, they are no extremely busy as there aren't enough services to go around. They have also put tolls into the city centre, this means that traffic is reduced because people don't want to pay. Lastly, they have made busy roads one way in rush hour. Car use has reduced slightly, however many still use cars for their own safety.
Sustainable Management in Rio- Housing	Hillside were secured and new health and education facilities were built in these areas, however the budget of US\$1Billion is probably not going to be enough to do this in every Favela. It has also led to rent rising and many people can't afford to live in their old homes.

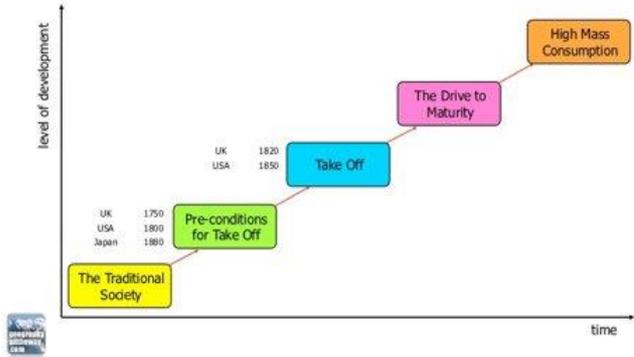
Sustainable Management in Rio- Waste

As we saw before, the largest problems concerning waste disposal are in the Favelas. Many are built on steep slopes and have few proper roads meaning that it is difficult for waste collection lorries to get through. Imagine if rubbish in Swindon wasn't collected every week – it would pile up outside our houses, attracting rats and foxes. It would also really smell. The waste in Rio does the same, it builds up and pollutes the water system spreading diseases like Cholera. To reduce this, a power plant has been set up near the University or Rio which uses methane gas from rotting rubbish to produce energy. This is more environmentally friendly than a lot of electricity production, however it does release some methane which is a greenhouse gas. It consumes 30 tonnes of rubbish a day (that's 2 busses) and produces electricity for 1000 homes. However, because of the methane gas it can be a stinky business.

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Year 11 OCR A Term 1 – People of the world

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3. The Spanish Empire 1528-1555

Pizarro – First Expedition

Pizarro was with Balboa when they reached the Pacific. Pizarro was impressed by Cortes and his success in Mexico.

Tales of vast wealth in Peru encouraged Pizarro to find his own success.

November 1524 – First expedition

Not a success. Only reached Columbia before bad weather, lack of food and attacks by hostile natives forced Pizarro to turn back. The mangrove swamps put off any idea of establishing a settlement too.

Impact of Gold and Silver on Spain

Used to make 8 sided coins – ‘pieces of eight’. Widely accepted in Europe due to high silver content.

The Crown took 25% of bullion coming into Spain .

75% of wealth went to Spanish merchants and conquistadors.

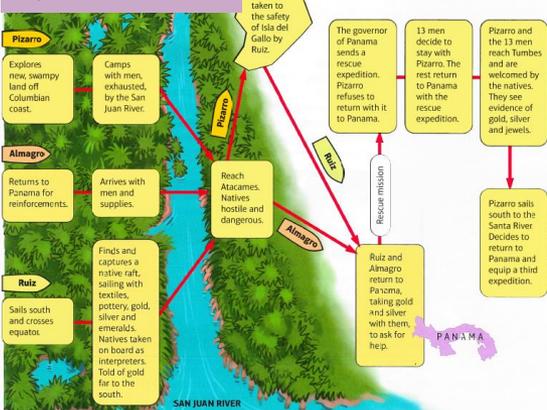
European traders put up prices for the wealthy Spanish merchants.

High prices led to inflation – workers demanded higher wages in Spain.

Charles I invested money in the military – not industry and business.

Spanish were getting wealthy by finding bullion instead of making products and selling.

Pizarro's Second Expedition



Pizarro's appeal to the Spanish King Charles I

In 1528 Pizarro returned to Spain with evidence of Inca wealth, including Llamas, silver and gold. Having been refused permission to launch a third expedition by the governor of Panama, he appealed to Charles I. Pizarro received a licence, the *Capitulacion de Toledo*, in July 1529, authorising him to conquer Peru.

Governing the Empire

The Spanish needed to find a way to govern the discovered territories to restore peace and stability. They needed to make sure basic essentials were available, laws were in place, conquistadors didn't fight among themselves and ensure daily life was managed effectively.

Bartolome de las Casas – was a priest that tried to encourage the fair treatment of natives in the New World. 1527 he wrote a book 'A Short Account of the Destruction of the Indies'.

The New Laws:

- It was made illegal to enslave natives.
- The amount of tribute that could be collected was limited.
- Encomiendas had to be passed back to the Spanish government on the death of the encomendero.

The role of the Viceroy:

The Council of the Indies appointed two viceroys to govern Spanish territories: one in Mexico city and one in Lima (Peru). They acted on behalf of the government. Justice was managed through the audiencias (courts), with judges who were independent of the viceroys.

The role of the **encomienda system**:

This was imposed officially across the Spanish Empire. An encomienda was land granted to a Spaniard, who was then called an encomendero. He could demand tribute from natives. In return he was responsible for their protection and their conversion to Christianity.

Significance of the New Laws 1542:

Laws introduced to improve the rights of native people, but encomenderos opposed them and the viceroy of Peru refused to implement them. Revolts in Peru: the most serious in 1544 had to be put down by the Spanish government and led to a temporary halt in the Spanish conquest of the New World in 1550. Although forced to suspend the laws, Charles I insisted encomiendas be passed back to the crown on the death of an encomendero. Natives continued to be exploited in the New World.

Date	Event
Dec 1518	Smallpox epidemic in Haiti.
Sept 1520	First cases of smallpox in Mexico
1525-1527	Smallpox spreads along the Caribbean coast.
1527	Smallpox reaches Peru. Huayna Capac dies from smallpox after returning to help his people.
1529	Civil War breaks out between Huascar and Atahualpa (Huayna Capac's son).
April 1532	Huascar is captured and killed. Atahualpa takes over Cuzco.
Nov 1532	The Battle of Cajamarca – Pizarro's men hid in the town square of Cajamarca. When Atahualpa's men entered the town they met with a priest who showed them a bible. Atahualpa threw the bible on the floor which was the signal needed for Pizarro's men to attack and they took Atahualpa prisoner.
July 1533	Atahualpa promised to fill his prison with treasure in order to secure his release. Although he did this, the Spanish still sentenced him to death. On 26 th July he was garrotted.
1533	Manco made puppet ruler of the Inca Empire.

Revolt of the Incas 1536
The Spanish saw Manco as a puppet king who would rule on their behalf. When Manco escaped from the Spanish he assembled an army and attacked the base at Cuzco.
The Siege of Cuzco 1536-1537 -10,000 Inca warriors faced 150 Spanish and 1000 native allies. -The Inca warriors broke into town, burning buildings to try to drive out the Spanish, but the Spanish were able to put the fires out. -The Spanish used their cavalry to attack the Inca warriors. -The Spanish captured the fortress of Sacsahuaman from the Incas, which the Inca army then besieged. -The siege ended when Spanish forces exploring Chile returned. -Manco withdrew and established a separate kingdom which lasted until 1572.

Founding of La Paz, 1548

La Paz was founded to symbolise the end of the revolt and to demonstrate that Spain had the overall authority in the New World, not the conquistadors. It became the administrative centre of the Spanish Empire. The Viceroy and the audiencias (courts) were based here. It was founded close to trade routes to ensure it maintained control over the silver mines based in Potosi and Oruro.

Discovery of silver in Bolivia and Mexico

By 1550 silver had been discovered in Potosi (Bolivia) and in Guanajuato and Zacatecas (Mexico). Some was sent back to Spain but most was kept by the conquistadors. Large mining towns developed to house workers for the mines. Colonisation of the New World increased as adventurers, merchants, speculators and their employees came in search of wealth. 25% of silver shipped to Spain went straight into the treasury.

Conquistador Revolt in Peru 1544

A serious revolt took place as the encomenderos were unhappy with the New Laws. This revolt was led by Gonzalo Pizarro, brother of Francisco Pizarro. It was a success and Almagro ruled over the Inca territory for 2 years. The arrival of a Spanish army resulted in his execution and the restoration of Spanish authority. The revolt raised the issue of control. Spain needed to govern its territories and control the rebellious conquistadors and encomenderos. This led to the founding of La Paz in 1548.

Pirates and Privateers

Spanish treasure was a target for Pirates and Privateers (funded by government/monarchy).

The ships were easy to find as they took well-defined and predictable routes across the Atlantic.

War with France (1542-46) meant Spain had to adapt ships and develop systems to deal with French privateers.

Galleons patrolled the sea routes and started carrying treasure as they were well armed.

Treasure fleet system developed: the **Tierra Firme** (went to S. America) and the **New Spain** (went to Mexico).



Growth of Seville

All goods imported to Europe had to go through Seville. Merchants travelled from all over Europe to buy and sell goods. This gave Spain a monopoly over trade with the New World.

The Slave Trade

Due to the number of deaths of natives in the New World, there was a labour shortage. Under the Treaty of Tordesillas, Spain could not directly get slaves from W. Africa. Spanish merchants could get licences (asientos) to supply slaves to the New World. Licences sold to the highest bidder who could then buy from Portuguese merchants and sell to merchants in the New World.

Casa de Contratacion (House of Trade)

Established in 1503 by Isabella. Collected colonial taxes. Approved voyages of exploration and trade and kept secret information on new lands and trade routes. Licenced captains of ships. In theory, no Spaniard could sail anywhere without the approval of the Casa.

Council of the Indies

Formed in 1524 and based in Spain. Controlled all matters concerning the New World. Messages received from Viceroys would be discussed and advice given to the King. Decisions made were sent from the Council to the Viceroys. This was Spain's way of trying to maintain control over its empire in the New World.

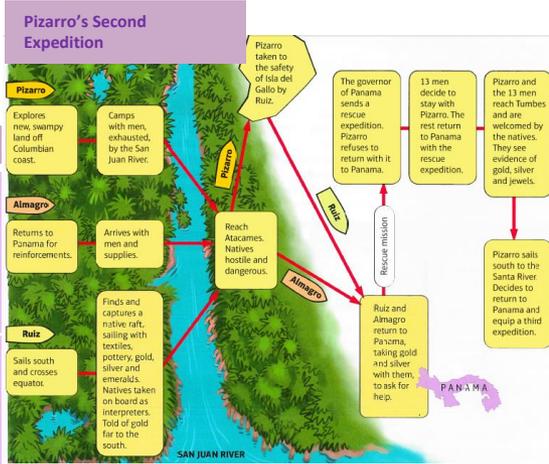


3. The Spanish Empire 1528-1555

Pizarro – First Expedition

Pizarro

November 1524 – First expedition



Pizarro's appeal to the Spanish King Charles I

Pizarro and the Conquest of the Inca Empire

Date	Event
Dec 1518	
Sept 1520	
1525-1527	
1527	
1529	
April 1532	
Nov 1532	
July 1533	
1533	

Revolt of the Incas 1536

The Siege of Cuzco 1536-1537

Governing the Empire

The Spanish needed to

Bartolome de las Casas –

The New Laws:

The role of the Viceroy's: (courts), with judges who were independent of the viceroys.

The role of the **encomienda system**:

Significance of the New Laws 1542:



Impact of Gold and Silver on Spain

Used to make 8 sided coins – 'pieces of eight'. Widely accepted in Europe due to high silver content.

The Crown took 25% of bullion coming into Spain.

75% of wealth went to Spanish merchants and conquistadors.

European traders put up prices for the wealthy Spanish merchants.

High prices led to inflation – workers demanded higher wages in Spain.

Charles I invested money in the military – not industry and business.

Spanish were getting wealthy by finding bullion instead of making products and selling.

Founding of La Paz, 1548

Growth of Seville

The Slave Trade

Casa de Contratacion (House of Trade)

Discovery of silver in Bolivia and Mexico

Conquistador Revolt in Peru 1544

Pirates and Privateers

Spanish treasure was a target for



The ships were easy to find as they took well-defined and predictable routes across the Atlantic.

War with France (1542-46) meant Spain had to adapt ships and develop systems to deal with French privateers.

Galleons patrolled the sea routes and started carrying treasure as they were well armed.

Treasure fleet system developed: the **Tierra Firme** (went to S. America) and the **New Spain** (went to Mexico).

Council of the Indies



Keywords	
Tawhid	The belief in Islam that there is only one God who created everything
Omnipotent	God is all powerful and "has power over everything"
Immanent	God is active in the world and involved in its' creation.
Transcendent	God is outside of time and space. God cannot age or die or be located in one place.
Beneficent	Allah is compassionate, caring and good
Sunnah	The traditions and practices of the Prophet Muhammad
Qur'an	The Islamic sacred book
Hadith	A collection of traditions and sayings of the Prophet Muhammad
6 Articles of Faith	6 basic beliefs that shape the Islamic way of life
5 Roots of Usul Ad-Din	5 rules which explain how Muslims should act in daily life
Akhirah	Belief in the afterlife
Al Qadr	Supremacy of God's will and The belief in predestination which is slightly different for Sunni and Shi'a Muslims

What we are learning in this unit		
A. 6 Articles of Faith B. 5 Roots of Usul Ad-Din C. Sunnah and Hadith D. Risalah E. Torah, Psalms and Gospels F. Nature of Allah G. Qu'ran H. Torah, Psalms and Gospels I. Angels J. Al Qadir K. Day of Judgement, Paradise and Hell		

B. 5 Roots of Usul Ad-Din		
The 5 roots of Usul ad-Din are central to the Shi'a Muslim faith.		
Root	What is it?	Quote
1: Tawhid	The belief in the oneness of Allah	"He is God the One, God the eternal " Surah 112
2: Nubuwwah	Belief in prophethood: the chain of messengers from Adam to Muhammad	"We sent messengers to every community" Surah 16
3: Adl	Allah is just (fair) and will bring Divine Justice	"I advise you to being just towards both friend and foe " Imam Ali
4: Imamah	A term for God-given leadership	"obey God and the Messenger, and those in authority among you "
5: Mi'ad	The day of judgement and resurrection	"His is the judgement ; and to Hjm you shall be returned"

A. 6 Articles of Faith	
Article of faith	What is it?
1: Belief in one God	Allah is the creator and sustainer of life. There is no God but Allah
2: Belief in Angels	Angels do the work of Allah and do not have free will like humans. They obey Allah
3: Belief in God's revealed books	The Torah, the Psalms, the Gospels, the Scrolls of Abraham and the Qur'an.
4: Belief in the messengers of God	Prophets and messengers are chosen by Allah to deliver His message to humankind
5: Belief in the Day of Judgement	There will be a day when all people stand in front of Allah and are sent to Heaven or Hell
6: Belief in pre-destination	Allah knows everything. Everything is ordered by Allah – nothing is random or by chance

C. Sunnah and Hadith	
Sunnah	<ul style="list-style-type: none"> The practices, customs and traditions of Prophet Muhammad They give an example for Muslims to follow The Sunnah and Hadith are sources of Wisdom and authority alongside the Qur'an
Hadith	<ul style="list-style-type: none"> Reading the Hadith helps a Muslim to learn how Muhammad explained the teachings from the Qur'an The Hadith makes the Qur'an easier to understand
What does the Sunnah tell Muslims?	<ul style="list-style-type: none"> The Sunnah covers many areas of life It provides a guideline for Muslim life There is a Sunnah for everything



Keywords	
Tawhid	
Omnipotent	
Immanent	
Transcendent	
Beneficent	
Sunnah	
Qur'an	
Hadith	
6 Articles of Faith	
5 Roots of Usul Ad-Din	
Akhirah	
Al Qadr	

What we are learning in this unit		
A. 6 Articles of Faith B. 5 Roots of Usul Ad-Din C. Sunnah and Hadith D. Risalah E. Muhammad F. Nature of Allah G. Qu'ran H. Torah, Psalms and Gospels I. Angels J. Al Qadir K. Day of Judgement, Paradise and Hell		

B.	<i>5 Roots of Usul Ad-Din</i>
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Root	What is it?	Quote
1:		
2:		
3:		
4:		
5:		

A.	6 Articles of Faith	
Article of faith	What is it?	
1:		
2:		
3:		
4:		
5:		
6:		

C.	Sunnah and Hadith	



D.	<i>Risalah (Prophethood)</i>	E	<i>Torah, Psalms and Gospels</i>
What is it	<ul style="list-style-type: none"> • Muslims believe there has been 124,000 prophets • Every Islamic prophet preached Islam and key beliefs • The first was Adam, the last was Muhammad (Box E) 	Psalms (Zabur)	<ul style="list-style-type: none"> • The Psalms of Dawud are a collection of prayers to Allah • They contain lessons of guidance for the people
Why are prophets important?	<ul style="list-style-type: none"> • Prophets are guided by Allah • Their love of Allah stops them from sinning • Some prophets are messengers who have been given revelation of news 	Gospel (Injil)	<ul style="list-style-type: none"> • This is the good news about Isa (Jesus) • Muslims highly respect Isa because there are revelations in the Qur'an about him • Muslims believe he was the Masih, he was not the son of Allah, he was not crucified, he did not die to save sins • The gospels contain some mistakes because they were written many years after Isa died
Adam	<ul style="list-style-type: none"> • The first prophet • The father of all humankind • He taught about the work of Iblis and how to protect themselves • He taught life on Earth was temporary, eternal life is in the next life • He built the Ka'aba as the first place of worship 	Torah (Tawrat)	<ul style="list-style-type: none"> • The Tawrat is the Arabic word for the Torah • These are the revelations given to Moses by Allah on Mt Sinai • The Qur'an refers to the Tawrat as "guidance and light"
Ibrahim	<ul style="list-style-type: none"> • Ibrahim was told in a dream to sacrifice Isma'il as a test of faith – remembered at Hajj every year • His son Isma'il is the ancestor of the prophet Muhammad 	Scrolls of Ibrahim	<ul style="list-style-type: none"> • Revelations received by Ibrahim on the first day of Ramadan • Contained stories about worship and reflection • Not a book, individual revelations

F.	<i>The Nature of Allah</i>
Tawhid	<ul style="list-style-type: none"> • There is only one God and this God has no equal. • He created everything. • Only He should be worshipped: worshipping other Gods is a sin called shirk. • "There is no God but Allah, and Muhammad is his messenger". • "Allah witnesses that there is no deity except Him" • "Do they not see that Allah, who created the heavens and the Earth and was not wearied by their creation, has the power to raise the dead to life?"
2: Omnipotent	Allah is all powerful and has power over everything
3: Immanence	Allah is active in the world and able to control events
4: Transcendent	<ul style="list-style-type: none"> • Allah is outside of the universe • Not limited by time or space
5: Beneficence	God has love and good will
6: Mercy	<ul style="list-style-type: none"> • "In the name of Allah, the most compassionate, the most merciful" • God is forgiving and caring
7: Fairness and justice	<ul style="list-style-type: none"> • Allah is fair to all people • Allah has sent the same message to all prophets to allow humans numerous opportunities to submit to the will of Allah • Allah will ensure that judgement is fair and punishments are suitable



D.	<i>Risalah (Prophethood)</i>	E	<i>Torah, Psalms and Gospels</i>
What is it		Psalms (Zabur)	
Why are prophets important?		Gospel (Injil)	
Adam		Torah (Tawrat)	
Ibrahim		Scrolls of Ibrahim	

F.	<i>The Nature of Allah</i>
Tawhid	
2: Omnipotent	
3: Immanence	
4: Transcendent	
5: Beneficence	
6: Mercy	
7: Fairness and justice	



G.	<i>Qur'an</i>	I.	<i>Angels</i>
Revelation	<ul style="list-style-type: none"> Chapters of the Qur'an were revealed to Prophet Muhammad over 13 years in Makkah While Muhammad received the revelations, he was not able to change them because it was the will of Allah After Muhammad received them, he recited them, and somebody wrote them down. 	What are they?	<ul style="list-style-type: none"> Angels are made from light and have wings which can move at the speed of light They have no gender and are in the unseen world They always complete what Allah asks and they always obey Allah as they have no free will
Authority	<ul style="list-style-type: none"> It is the direct word of Allah so it has His authority It is without error and remains in its' original form A written book was needed to formalise the religion 	What do they do?	<ul style="list-style-type: none"> Watch over humans Bring peace to believers and instill fear in non-believers Angel of Death takes the soul at death Greet people entering paradise or throw people into the pits of hell Signify the end of the world by blowing a horn
What does it contain?	<ul style="list-style-type: none"> It covered every aspect of life It influences a person throughout their lives The basics of worship which Muhammad developed Shari'ah law and social systems It explains creations and other ultimate questions 	Jibril	<ul style="list-style-type: none"> Most important angel in Islam Always brings good news Helped Ibrahim when he was thrown in to a fire, opened up the Zamzam well for Hajar Told Maryam she would have a son (Isa) Dictated the Qur'an directly from Allah
Supreme authority	<ul style="list-style-type: none"> The Qur'an is believed to have supreme authority It is a timeless book – it is only the word of Allah if it is not translated from Arabic 	Mika'il	<ul style="list-style-type: none"> Assisted Muhammad with his spiritual mission Giver of rain and sustenance – in charge of plants and rain Helped Muhammad to fight for Makkah Will help to weigh peoples' actions on Judgement Day Mika'il prepared Muhammad by providing Jibril with purifying water

K.	<i>Day of Judgement, paradise and Hell</i>
What will happen?	<ul style="list-style-type: none"> Muslims believe Judgement day will come on a Friday (Adam was created on a Friday) It will be announced by Israfil's trumpet Allah will refer us to the book of deeds to justify damnation or salvation Humans will go to paradise or Hell
Jannah	<ul style="list-style-type: none"> Paradise No growing ill, old or dying – it is a reward and gift from Allah A person must live religiously and ask Allah for forgiveness Good beliefs and actions It is beyond human imagination
Entry to Jannah	<ul style="list-style-type: none"> "enter among my servants! Enter my paradise!" People will arrive over the As-Sirat bridge There are 8 gates and you go through the one which represents your best action Two angels welcome people saying "peace be upon you"
Jahannam	<ul style="list-style-type: none"> Hell People wail in misery, 70x hotter than any flame on earth, boiling water poured on their heads, pain, dragged in chains Punishment for a life full of evil or rejecting the teachings of the Qur'an

J.	<i>Al Qadir</i>
	<ul style="list-style-type: none"> Everything happens as a result of Allah's will and nothing is ever random or without reason Allah is in charge of everything Everything is a part of Allah's plan "never will we be struck except by what Allah has decreed for us"
E.	<i>Muhammad</i>
Why was he chosen?	<ul style="list-style-type: none"> Muhammad had characteristics such as responsibility, determination, patience, courage and honesty He was highly respected in his community He was extremely devoted to Allah – he prayed and fasted for long periods of time
What did he do as a prophet?	<ul style="list-style-type: none"> He became the ruler of Madinah and set up the first Islamic community He converted the people of Makkah to Islam
Why is Muhammad important?	<ul style="list-style-type: none"> He is seen as the perfect role model as he is trustworthy and obedient to Allah His influence can still be seen in the Hadith and Sunnah The night of power in Ramadan is to remember Muhammad's first revelation from the angel Jibril



G.	<i>Qur'an</i>	I.	<i>Angels</i>
Revelation		What are they?	
Authority		What do they do?	
What does it contain?		Jibril	
Supreme authority		Mika'il	

K.	<i>Day of Judgement, paradise and Hell</i>	J.	<i>Al Qadir</i>
What will happen?			
Jannah		E.	<i>Muhammad</i>
Entry to Jannah		Why was he chosen?	
Jahannam		What did he do as a prophet?	
		Why is Muhammad important?	



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	4. El año próximo
2. No soporto	5. Por otro lado
3. discuto	6. Voy a...

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
reirse	to laugh
seguro/a	certain, sure
el sentido del humor	sense of humour
travieso/a	naughty
triste	sad
el verano	summer
la vida	life

1.1G ¿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

1.1H 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
orgullosa/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

1.2F 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

1.2G 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

1.2H 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

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

2.1F ¿Cómo prefieres mantenerte en contacto?	
comunicarse	to communicate
desafortunadamente	unfortunately
empezar	to start
escoger	to choose
genial	brilliant / great
gratis	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

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

2.1G 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

2.2G ¡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

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

2.2H ¿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

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

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

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	police, detective, crime (adj.)
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

3.1G ¿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

3.2G 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

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

3.2G 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	competition
(contest)	
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

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	4. el desfile
2. hispánico	5. celebrarse
3. el turismo	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)

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

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

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	4. el hogar
2. alojamiento	5. la casa
3. alquilar	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

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 6 SPANISH Knowledge organiser.
Topic Social Issues

Key Verbs

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	4. comedor social
2. ecologista	5. banco de alimentos
3. los sin techo	6. quiero

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	useless
propósito	aim, purpose, objective
repartir	to deliver, to hand out
tener sueño	to be sleepy
la tienda solidaria	charity shop
útil	useful

Ayudar To help	Ir To go	Soportar To stand	Hacer – to do/make	Limpia 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

6.1G ¿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	charity shop
/tienda solidaria	
el/la voluntario/a	volunteer

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

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 7 SPANISH Knowledge organiser.
Topic Global Issues

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	Enciende 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

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

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

7.1G 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

7.2G Los necesarios	
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

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 NGO (non-governmental organisation) no gubernamental)	
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
alejarse	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 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	4. vacaciones
2. veranear	5. un folleto
3. la pensión	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 flies
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 refinera (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



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 | 4. suspender |
| 2. notas | 5. licienciatura |
| 3. aprobar | 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 / to get good / bad grades
 malas notas
 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 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	4. demostrar
2. actuar	5. las instalaciones
3. la ausencia	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 escolar	building 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	to brighten up, to cheer up
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 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	4. la empresa
2. por ciento	5. el/la jefe/a
3. la ama de casa	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 / malasto	get good / to get bad
grades	
notas	
seguir + gerund	to carry on ...ing

11.1F ¿Trabajar o estudiar?

considerar	to consider
demonstrar	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?

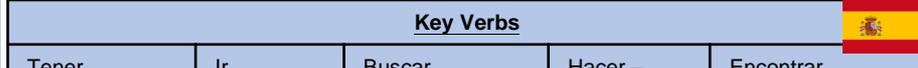
a solas	on one's own
acabar de + infinitive	to have just
adecuado/a	adequate, decent
aislado/a	isolated
al final de	at the end of
apelar	to appeal
aprender	to learn
así que	so
avanzado/a	advanced
el beneficio	benefit
bien pagado/a	well paid
la calidad	quality
la carrera (universitaria)	university course, career
claro	of course
conseguir	to get, to manage, to achieve
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 12 SPANISH Knowledge organiser
Topic Jobs, Career choices and Ambitions



Key Verbs

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

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

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

12.1G 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

12.1H 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	flexitime, flexible
working hours	
flexibles	
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

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
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.

2. 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.

9. 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	<p>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:</p> <p>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</p> <p>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.</p> <p>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.</p>
Speedy and Efficient Service	<p>Good customer service is designed for the customer not the company.</p> <p>Efficient service:</p> <p>Gets products to customers exactly when you want them</p> <p>Gets products to customers in good condition</p> <p>If there is anything wrong - it will be sorted out as soon as possible and considerately</p>
Customer Engagement	<p>In the world of social media, it becomes possible to try to keep customers engaged with the business on a regular basis.</p> <p>Companies engage customers in a variety of ways:</p> <p>E-Mail</p> <p>Social Media (Facebook and Instagram)</p> <p>Post</p> <p>Text</p> <p>Television/Web advertisements.</p> <p>It is vital that customers feel up to date and informed about any product innovations</p>
Responses to Customer Feedback	<p>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.</p> <p>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.</p>



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	

Food spoilage, contamination and food poisoning

Food spoilage

As soon as food is harvested, slaughtered or processed it starts to change. This happens for two main reasons:

- autolysis – self destruction, caused by enzymes present in the food;
- microbial spoilage – caused by the growth of micro-organisms, i.e. bacteria, yeasts and moulds.

Food spoilage: Autolysis – enzymes

Enzymes are chemicals which can cause food to deteriorate in three main ways:

- ripening – this will continue until the food becomes inedible, e.g. banana ripening;
- browning – enzymes can react with air causing certain foods, e.g. apples, to discolour;
- oxidation – loss of nutrients, such as vitamin C from food, e.g. over boiling of green vegetables.

Food spoilage: Microbial spoilage

Spoilage can be caused by the growth of:

- bacteria – single celled micro-organisms which are present naturally in the environment;
- yeasts – single celled fungi;
- moulds – fungi which grow as filaments in food.

Food contamination

Food contamination can lead to food poisoning. There are three ways which food can be contaminated: **bacterial**, **chemical** and **physical**.

Chemical contamination

Chemical contamination can occur in a variety of ways at different stages of food processing and production. For example, chemicals from the farm; cleaning products used in the processing plant and fly spray used in the kitchen.

Physical contamination

This can occur in a variety of ways at different stages of food processing and production. Some examples are:

- soil from the ground when harvesting;
- a loose bolt from a processing plant when packaging;
- a hair from a chef in the kitchen.**

Bacterial contamination

Most bacteria are harmless but a small number can cause illness. These are known as pathogenic bacteria. Food which is contaminated with pathogenic bacteria can look, taste and smell normal.

Bacteria can be transferred onto food through cross-contamination, via equipment, people or pests, or can be naturally present in the food. Some bacteria can produce toxins which can cause food poisoning.

Micro-organisms

Micro-organisms need conditions to survive and reproduce these can include:

- temperature;
- moisture;
- food;
- time;
- oxygen and pH level.

Temperature

Bacteria need warm conditions to grow and multiply.

- The ideal temperature for bacterial growth is 30°C – 37°C.
 - Some bacteria can still grow at 10°C and 60°C.
 - Most bacteria are destroyed at temperatures above 63 °C.
 - Bacterial growth danger zone is 5°C - 63°C.
- At very cold temperatures, bacteria become dormant – they do not die, but they cannot grow or multiply.

Moisture

Where there is no moisture bacteria cannot grow. However, bacteria and moulds can both produce spores which can survive until water is added to the food.

Food

Bacteria need a source of food to grow and multiply, these food are usually high in moisture, fat and protein, and may be ready to eat. Food where bacteria rapidly multiply in is called a **high risk food**. For example:

- meat, meat products and poultry;
- milk and dairy products;
- eggs – uncooked and lightly cooked;
- shellfish and seafood;
- prepared salads and vegetables;
- cooked rice and pasta.

Time

Given the right conditions, one bacterium can divide into two every 10-20 minutes through a process called binary fission.

People at high risk of food poisoning

Elderly people, babies and anyone who is ill or pregnant needs to be extra careful about the food they eat.

Symptoms of food poisoning

Food poisoning can be mild or severe. The most common symptoms are:

- feeling sick;
- being sick;
- diarrhoea;
- abdominal pain.

Campylobacter

Sources

Raw and undercooked poultry, unpasteurized milk, contaminated water.

Signs and symptoms

Onset 2 – 5 days (can be longer). Fever, headache and dizziness for a few hours, followed by abdominal pain.

E Coli 0157

Sources

Raw and undercooked meat and poultry. Unwashed vegetables. Contaminated water.

Signs and symptoms

Onset usually 3-4 days. Diarrhoea, which may contain blood, can lead to kidney failure or death.

Listeria

Sources

Unpasteurised milk and dairy products, cook-chill foods, pate, meat, poultry and salad vegetables.

Signs and symptoms

Onset 1-70 days. Ranges from mild, flu-like illness to meningitis, septicaemia, pneumonia. During pregnancy may lead to miscarriage or birth of an infected baby.

Salmonella

Sources

Raw meat, poultry and eggs. Flies, people, sewage and contaminated water.

Signs and symptoms

Onset 6-48 hours. Headache, general aching of limbs, abdominal pain and diarrhoea, vomiting and fever. This usually lasts 1 – 7 days, and rarely is fatal.

Staphylococcus aureus

Sources

Humans: nose, mouth and skin. Untreated milk.

Signs and symptoms

Onset 1 – 6 hours. Severe vomiting, abdominal pain, weakness and lower than normal temperature. This usually lasts 6 – 24 hours.

Key terms

Bacteria: Small living organisms that can reproduce to form colonies. Some bacteria can be harmful (pathogenic) and others are necessary for food production, e.g. to make cheese and yogurt.

Binary fission: The process that bacteria uses to divide and multiply.

Cross-contamination: The transfer of bacteria from one source to another. Usually raw food to ready to eat food but can also be the transfer of bacteria from unclean hands, equipment, cloths or pests. Can also relate to allergens.

Food spoilage: The action of enzymes or microorganisms which make the food unacceptable to consume.

Food poisoning: Illness resulting from eating food which contains food poisoning micro-organisms or toxins produced by micro-organisms.

Toxin: A poison produced by some bacteria which can cause food poisoning.

Allergens

Allergenic ingredients can cause adverse reactions in some people. Care must be taken at each stage of food processing to prevent contamination.

Desirable food changes

Desirable changes that can be caused by micro-organisms include:

- bacteria in yogurt and cheese production;
- mould in some cheeses, e.g. Stilton;
- yeast in bread production.

Food spoilage, contamination and food poisoning

Food spoilage

As soon as food is harvested, slaughtered or processed it starts to change. This happens for two main reasons:

- autolysis –
- microbial spoilage –

Food spoilage: Autolysis – enzymes

Enzymes are chemicals which can cause food to deteriorate in three main ways:

- ripening
- browning
- oxidation

Food spoilage: Microbial spoilage

Spoilage can be caused by the growth of:

- bacteria
- yeasts
- moulds

Food contamination

Food contamination can lead to _____. There are three ways which food can be contaminated:

Chemical contamination

Chemical contamination can occur in a variety of ways at different stages of food processing and production. For example:

Physical contamination

This can occur in a variety of ways at different stages of food processing and production. Some examples are:

-
-

Bacterial contamination

Most bacteria are harmless but a small number can cause illness. These are known as pathogenic bacteria. Food which is contaminated with pathogenic bacteria can look, taste and smell normal.

Bacteria can be transferred onto food through cross-contamination, via equipment, people or pests, or can be naturally present in the food.

Some bacteria can produce toxins which can cause food poisoning.

Micro-organisms

Micro-organisms need conditions to survive and reproduce these can include:

-
-
-
-

Temperature

Bacteria need warm conditions to grow and multiply.

•The ideal temperature for bacterial growth is _____. Some bacteria can still grow at 10°C and 60°C.

•Most bacteria are destroyed at temperatures above _____

•Bacterial growth danger zone is _____

•At very cold temperatures, bacteria become _____ – they do not die, but they cannot grow or multiply.

Moisture

Where there is no moisture bacteria cannot grow. However, bacteria and moulds can both produce spores which can survive until water is added to the food.

Food

Bacteria need a source of food to grow and multiply, these food are usually high in moisture, fat and protein, and may be ready to eat. Food where bacteria rapidly multiply in is called a **high risk food**. For example:

-
-
-
-
-

Time

Given the right conditions, one bacterium can divide into two every 10-20 minutes through a process called _____.

People at high risk of food poisoning

Symptoms of food poisoning

Food poisoning can be mild or severe. The most common symptoms are:

-
-
-
-

Campylobacter Sources

Signs and symptoms

E Coli 0157

Sources

Signs and symptoms

Listeria

Sources

Signs and symptoms

Salmonella

Sources

Signs and symptoms

Staphylococcus aureus

Sources

Signs and symptoms

Key terms

Bacteria:

Binary fission:

Cross-contamination:

Food spoilage:

Food poisoning:

Toxin:

Allergens

Allergenic ingredients can cause adverse reactions in some people. Care must be taken at each stage of food processing to prevent contamination.

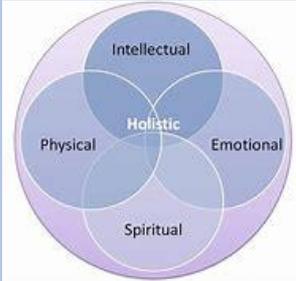
Desirable food changes

Desirable changes that can be caused by micro-organisms include:

-
-
-

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 people 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 health and well-being	
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: <ul style="list-style-type: none"> • 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 holistic attitude towards health and wellbeing if you look after your: <ul style="list-style-type: none"> • 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	Genes and environment
	<ul style="list-style-type: none"> • 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 wellbeing because they influence a person's self-concept (self-image and esteem). 	<ul style="list-style-type: none"> • 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	<p>Dominant: If a gene is dominant a child inheriting it from only one birth parent will have the condition, e.g Huntington's disease.</p> <p>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.</p>	<p>Effects of inherited disorders</p> <ul style="list-style-type: none"> • Physical health: Body systems, growth and mobility • Intellectual wellbeing: 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:

- 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?	<ul style="list-style-type: none"> • 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:	<p>A person over weight or under weight may:</p> <ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • Fats (saturated and unsaturated) • Carbohydrates (sugars and starches) • Minerals • Vitamins • Proteins
Est well guide says you should eat:	<ul style="list-style-type: none"> • 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 more than you need:	<ul style="list-style-type: none"> • 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 less than you need	<ul style="list-style-type: none"> • The body does not get enough nutrients to grow and develop properly and this can lead to: • Eating disorders, stunted growth, anaemia, heart failure, depression, tiredness, cancer or rickets.

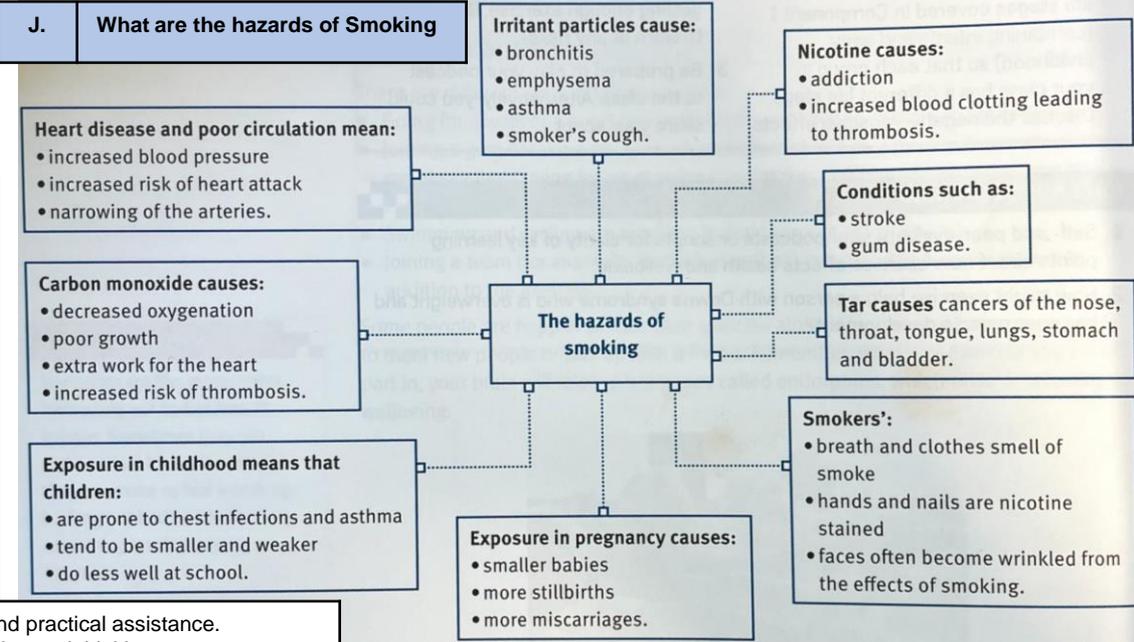
E	Chronic or Acute Illness	
	<p>Chronic illness- Illness comes on gradually, is long term (more than 3 months) and generally can be treated but not cured. E.g Asthma, Diabetes, epilepsy, bipolar disease, Alzheimer’s disease</p>	<p>Acute illness- Illness comes on quickly, is short term and can be cured. E.g. Cold, flue, broken bones, heartburn, appendicitis or Diarrhoea.</p>
<p>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.</p>		
Possible negative effects of chronic illness		
<p>Physical:</p> <ul style="list-style-type: none"> • poor rate of growth • Unusual physiological change during puberty • Restricted movement 		<p>Emotional:</p> <ul style="list-style-type: none"> • Negative self-concept • Stress • Decision making
<p>Intellectual:</p> <ul style="list-style-type: none"> • Disturbed learning because of missing school • Difficulties in thinking and problem solving • Memory problems. 		<p>Social</p> <ul style="list-style-type: none"> • Isolation • Loss of independence • Difficulties developing relationships

F.	What are the effect of exercise?	
<p>Positive effects of exercise</p>	<p>Physical: 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.</p> <p>Intellectual: improved brain function like mentor and thinking skills.</p> <p>Emotional: improves confidence and mood and reduces stress. Aid relaxation and sleep and lead to better self concept.</p> <p>Social: encourages social interaction, reducing isolation and improving social skills.</p>	
	<p>Negative effects of exercise</p>	<p>Physical: Obesity and associated health problems.</p> <p>Intellectual: Reduced pain performance, hard to concentrate and retain information.</p> <p>Emotional: poor self-concept and reduced ability to cope with stress.</p> <p>Social: Fewer opportunities for social interactions.</p>

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

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	<p>Physical: physical support and day to day care and practical assistance.</p> <p>Intellectual: shared experiences, supported learning and thinking</p> <p>Emotional: unconditional love, security and encouragement, positive self-concept, feeling content, ability to build relationships with people outside the family, independence and confidence.</p> <p>Social: Companionship, social circle increases.</p>
Negative effects of social isolation	<p>Physical: poor lifestyle choices like smoking and drinking, poor diet that can cause eating disorders.</p> <p>Intellectual: reduced ability to use thinking skills, missing school/work</p> <p>Emotional: feelings insecure, depression, anxiety, negative self-concept, feeling of hurt, loneliness and distrust, lack of independence, difficulty in controlling emotions.</p> <p>Social: difficulties in building relationships as lack skills.</p>

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

K.	What are the effects of Personal Hygiene?
Positive effects of good personal hygiene 	<ul style="list-style-type: none"> Helps prevent the spread of infection Improves self-concept Reduces number of bacteria that lives on us. <p>You must:</p> <ul style="list-style-type: none"> Brush you teeth Shower daily or bath Wash your hair regularly Keep fingernails and toenails clean and trimmed
Negative effects of poor personal hygiene	<p>Physical: catching and spreading disease like food poisoning, sore throat, meningitis and athlete's foot. Bad body odour, bad breath and tooth decay.</p> <p>Emotional: loss of friendships and social isolation. Might be bullied and poor self-concept.</p> <p>Social: low social interactions as people don't want to be friends with someone that neglects their hygiene. Social isolation.</p>
When caring for others:	<ul style="list-style-type: none"> 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:	
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. <ul style="list-style-type: none"> 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 less likely to talk about their health and wellbeing than woman. This is because men are: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Depression Loss of contact with family and friends Social isolation Restrictions on physical activity 	<ul style="list-style-type: none"> Opportunity to study Improvement in health through balanced diet, lack of alcohol, reduced use of nicotine
Redundancy	<ul style="list-style-type: none"> Poor self-concept Anxiety about finances Fewer opportunities 	<ul style="list-style-type: none"> Opportunities to study or train for a new job More time to spend with family and friends
Exclusion or dropping out of education	<ul style="list-style-type: none"> Loss of contact with friends Social isolation Poor self-concept Lack of learning opportunities 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Better financial resources can result in good housing conditions and healthy diet Manual jobs may improve muscle tone and stamina. 	<ul style="list-style-type: none"> Low wages can affect diet and housing, leading to poor health. Manual jobs can cause muscular and skeletal problems Desk jobs lead to less activity and weight gain.
Intellectual	<ul style="list-style-type: none"> Better financial resources can result in more leisure time for intellectual activities Work, education or training helps to develop problem solving and thinking skills 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> A well-paid job gives a feeling of security. Being financially secure promotes positive self-concept 	<ul style="list-style-type: none"> Financial worried can result in stress and breakdown of relationships. Unemployment or low-status work can lead to low self-concept
Social	<ul style="list-style-type: none"> Better financial resources provide opportunities for socialising. Work gives opportunities for socialising with colleagues. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Build new relationships Extend knowledge and learning Develop new skills Improve confidence 	<ul style="list-style-type: none"> Anxiety about new routines and meeting new people Insecurity about leaving parents and other families
Start a new job or career	<ul style="list-style-type: none"> Develop independence Improve thought processes Improve self-concept 	<ul style="list-style-type: none"> Stress about learning new skills and routines Anxiety about meeting new people
Moving to a new house or area	<ul style="list-style-type: none"> Excitement Develop new friendships and relationships 	<ul style="list-style-type: none"> Unhappiness at loss of old life Stress of moving Social isolation
Retirement	<ul style="list-style-type: none"> Reduced stress Time to socialise with family and friends Opportunities for leisure of physical activities 	<ul style="list-style-type: none"> Loss of relationships with colleagues Possible loss of fitness and mobility Loss of intellectual stimulation and status

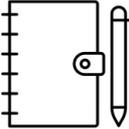
What we are learning in LAB:

- A. Physiological health indicators
- B. What are health indicators?
- C. Interpreting lifestyle data

A. Physiological health indicators	
Pulse	<p>Resting pulse rate is measured when a person has been still for about 5 minutes. Health reading for an adult is 60-100 bpm.</p> <p>Pulse rate during exercise: 220bpm minus the person's age.</p>
Blood pressure	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Measured how quickly you can blow air out of your lungs. • it is measured in litters per min (L/min).
BMI	<ul style="list-style-type: none"> • Measures the amount of fat on your body in relation to your height to tell you if your weight is healthy.

B.	
	<ul style="list-style-type: none"> • What are health indicators?
Importance of understanding indicators	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Weekly alcohol consumption • Smoking habits • Levels of physical activity and exercise.
What are physiological indicators?	<ul style="list-style-type: none"> • They show how well the body's systems are functioning. • Health professionals check a person's health by taking measurements. • They compare the results with published guidance.

C. Interpreting lifestyle data	
<p>Interpreting data on smoking</p> 	<ul style="list-style-type: none"> • 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.
<p>Interpreting data on alcohol</p> 	<ul style="list-style-type: none"> • 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.
<p>Interpreting data on inactivity</p> 	<ul style="list-style-type: none"> • 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 LAC:		C.	Recommended action to meet health and wellbeing improvement goals	
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		To lower blood pressure: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Reduce fat and sugar intake • Do not exceed the recommended daily calories intake • Get off the bus a stop early and walk the rest of the way • Drink water instead of sugary drinks. 	
A.	What is a person-centred approach.		To increase peak flow reading: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Walk for half an hour at lunchtime • Drink decaffeinated drinks • Take up a physically active hobby • Join a yoga group.
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:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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	D. SMART targets for health improvement plan		
What is it?	Health and wellbeing 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.	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.	
The plan will identify:	<ul style="list-style-type: none"> • 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. 	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.	
Positive effects of a health improvement plan	<ul style="list-style-type: none"> • 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 	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.	

F.	What are the potential obstacle to implementing plans?	G.	What are the possible obstacles to accessing services?	
Emotional/psychological- Lack of motivation	<ul style="list-style-type: none"> • 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. 	Type of obstacle	Possible obstacles	Suggestions to overcome obstacles
Emotional/psychological- Low Self-concept	<ul style="list-style-type: none"> • 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. 	Geographical	<ul style="list-style-type: none"> • Service is difficult to get to because of poor bus or train services. 	<ul style="list-style-type: none"> • Arrange hospital transport • Suggest telephone helplines or internet support groups.
Emotional/psychological- Acceptance of the current state	<ul style="list-style-type: none"> • 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. 	Financial	<ul style="list-style-type: none"> • Charges to use the services • Time off from work would mean loss of pay 	<ul style="list-style-type: none"> • Check for entitlements, such as medicines and treatments • Direct the person to advice on benefits and employee rights.
Time constraints	<p>People find that they do not have the time to achieve their health improvements targets because of:</p> <ul style="list-style-type: none"> • Care of young children, family members that are not well. • Regular and additional work and study commitments • Domestic chores • Medical appointments 	Psychological	<ul style="list-style-type: none"> • Fear of being judged because there is stigma around a health problem (mental health, obesity) 	<ul style="list-style-type: none"> • Talk about concerns and reassure • Direct the person to a charity that supports people with a particular health problem.
Availability of resources	<p>Financial obstacles:</p> <ul style="list-style-type: none"> • 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 	Physical	<ul style="list-style-type: none"> • Difficulty getting into the buildings where the service is provided (no wheelchair access). • No where to park near the service 	<ul style="list-style-type: none"> • Be aware of services that are adapted for easy access • Ask a friend or family member to drop the person off at the service
Unachievable targets	<ul style="list-style-type: none"> • 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. 	Personal needs	<ul style="list-style-type: none"> • Communication difficulties because of poor language skills, sensory or learning disability . • Concern that cultural needs are not understood 	<ul style="list-style-type: none"> • 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
Lack of support	<ul style="list-style-type: none"> • 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. 	Resources	<ul style="list-style-type: none"> • Limits on services, such as support aids and equipment • Staff shortages, leading to long waits for appointments and support. 	<ul style="list-style-type: none"> • Suggest sources of second-hand equipment • Look for alternative strategies, for example an exercise DVD if there are no places at an exercise class.
Ability, disability and addiction	<ul style="list-style-type: none"> • 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 			