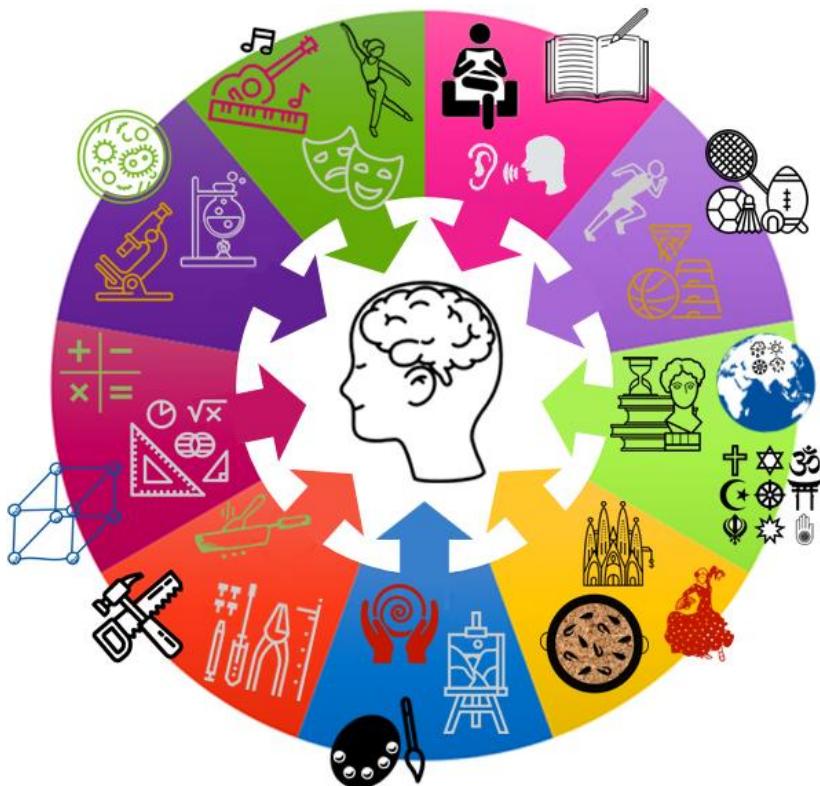


100% book - Year 11 Booster

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

Year 7 Term 1 Science/Chemistry : Topic TOP Particles

A. What is particle theory?	A. Describe the properties of the three states of matter.
B. What are the different changes of state?	B. What happens to the temperature of a substance when it changes state?
Solid In a regular pattern. Particles can vibrate in a fixed position.	During the change of state, the temperature will stay the same until the change of state is complete.
Liquid Particles are arranged randomly but close together. Particles can slide past each other and move around.	
Gas Particles are apart and are arranged randomly. Particles carry a lot of energy and they move in all directions in a high speed.	
C. What is the difference between a pure and an impure substance?	
Pure A material that is made up of only one type of particle.	
Impure A material that is made up of more than one type of particle.	

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

A. What is particle theory?	A. What is the law of conservation of mass?
A. Describe the arrangement and movement of particles in the three states of matter.	B. What are the different changes of state?
Solid	Melting
Liquid	Freezing
Gas	Evaporation
	Condensation

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 screenshot shows a digital planner for the month of May 2020. It includes sections for Home, My, Community, Rewards, and Downloads. The planner lists tasks for different subjects like Science, History, English, and Maths across the month. Specific tasks include 'Reading comprehension' and 'Handwriting practice' for English, and 'Multiplication' for Maths.

Step 2

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

This is a screenshot of a Knowledge Organiser page titled 'Year Planner Secondary Chemistry - Page 10P Particles'. It includes sections on 'What is particle theory?' (describing particles as tiny bits), 'States of matter' (solid, liquid, gas), and 'Changes of state' (melting, freezing, evaporation, condensation). There are also diagrams illustrating particle movement in each state.

Step 3

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

29th May 2020

Properties of the states of matter

Particle theory = all matter is made of particles

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

Gas = Particles are far apart and are arranged randomly. Particles carry lots 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.

Solid = regular pattern
particles vibrate in fixed position

Solid = regular pattern
particles vibrate in fixed position

Solid = regular pattern
particles vibrate in fixed position

Step 5

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

This is a screenshot of a quizzable Knowledge Organiser page. It includes sections for 'What is particle theory?' (with a question about mass conservation), 'Describe the arrangement and movement of particles in the three states of matter' (with sections for Solid, Liquid, and Gas), and a 'Self quizzing' section where users can test their knowledge of arrangement/movement of matter.

Step 6

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

Particle theory = all matter is made of particles

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

Gas = Particles are far apart and are arranged randomly. Particles carry lots of energy

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 Alfred Lord Tennyson.	<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. 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. 	<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	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.
Disillusionment	A feeling of disappointment when discovering that something is not as good as one believed it to be	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.
Exposure	Being unprotected against risk or danger	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
Relentless	When something harsh and severe will not stop	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.
Apathetic	Feeling no interest, enthusiasm or concern			
Nostalgia	A warm feeling for the past, particularly a very happy time			
Obedience	Doing as you are told			

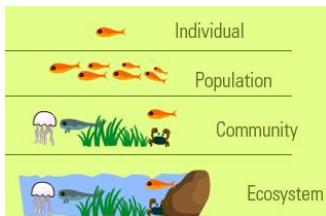
ENGLISH –Poetry cluster 2: Conflict- Sets 6-7

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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 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. 	<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 _____ of the lives of the soldiers. There is _____ rhythm and laboured rhyme scheme – no set pattern to syllables in lines. This may represent the war effort – on the outside, it appeared _____ and assembled, but to the soldiers on the inside, it was _____ and disjointed.
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Apathetic				
Nostalgia				
Obedience				

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

Ecosystems

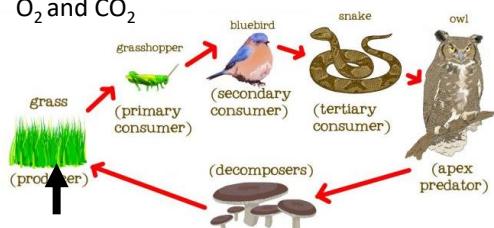
An ecosystem is all the living organisms within an area (community) plus the physical habitat



Interdependence

Organisms rely on each other for...

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



Competition

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

Animals and plants compete for different resources.

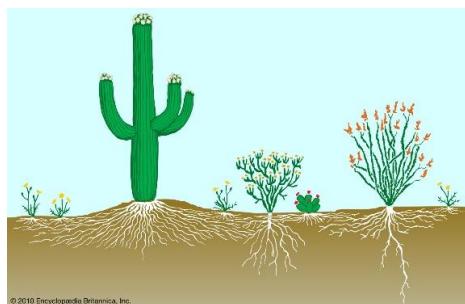
Plants	Animals
Light Space Minerals ions Water	Food Mates Territory

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



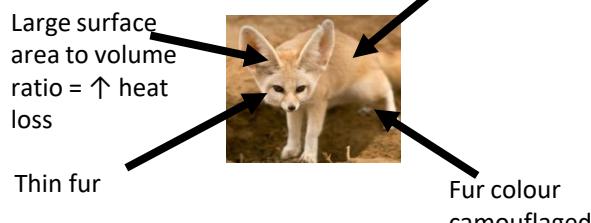
Plants in desert areas have :

- 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

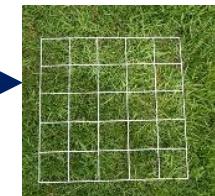
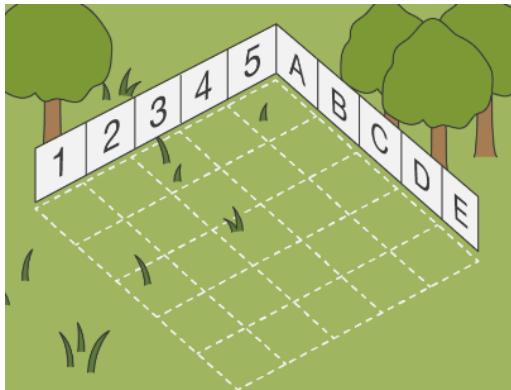
- | | | |
|--|--|--|
| <ol style="list-style-type: none">What is a community?What is an ecosystem?Give two things that animals rely on plants forGive two things that plants rely on animals forWhat is the term given to the predator at the very top of a food chain?Why are green plants known as producers?Name two resources plants compete forName two resources animals compete for | <ol style="list-style-type: none">Name two biotic factors that can affect organisms within a habitatWhat does the term 'abiotic' mean?Name two abiotic factorsWhy do some plants have spines instead of leaves?Name two ways plants are adapted for living in desert climates. | <ol style="list-style-type: none">Name the three types of adaptationsName one behavioural adaptationHow are animals adapted to live in cold climates?What are extremophiles?What is the surface area : volume ratio like on desert animals?Give an example of an extremophile |
|--|--|--|

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

Required practical – Estimating Populations (Measuring abundance)

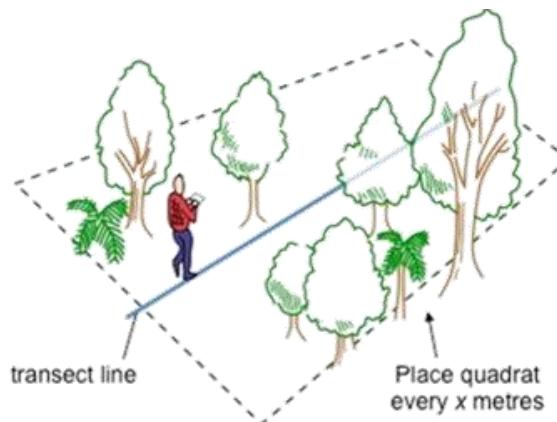
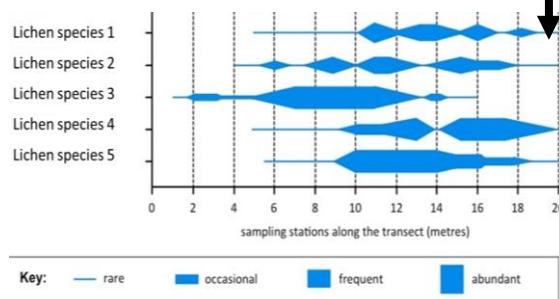
1. Calculate area of site.
2. Divide site up into a numbered grid
3. Use a random number generator to pick coordinates.
4. Randomly throw the 0.25m^2 quadrat at those coordinates.
5. Count the number of particular organism in the quadrat.
6. Repeat steps 3-5 **ten times (minimum)**.
7. Calculate mean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

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



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.)

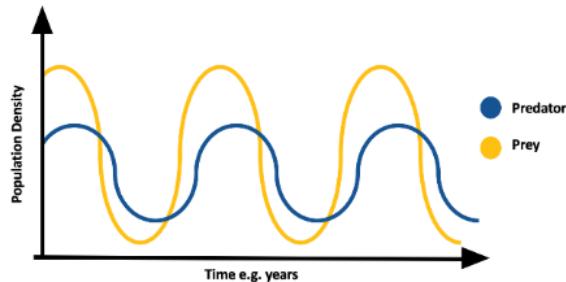


1. What is the minimum number of times the organism should be counted when estimating population size?
2. What is a quadrat?
3. What is the equation used to estimate population size?
4. How can you ensure the quadrat is randomly placed throughout the site?

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

Science T3 Y11 B5.17 Mainstream – Organising an ecosystem

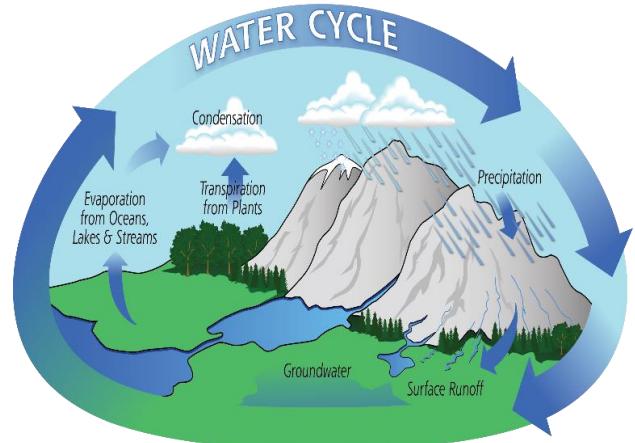
Predator-Prey Relationships



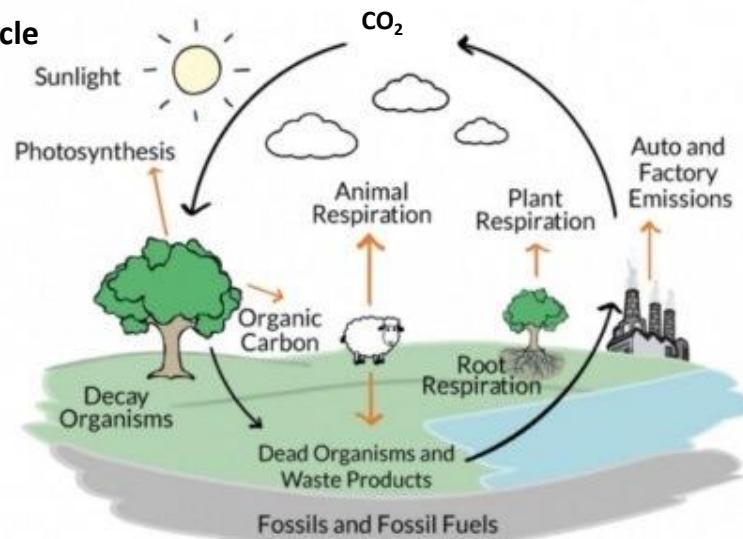
Population increases and decreases follow similar pattern in a cycle because they affect each other – more prey = more food for predator.

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

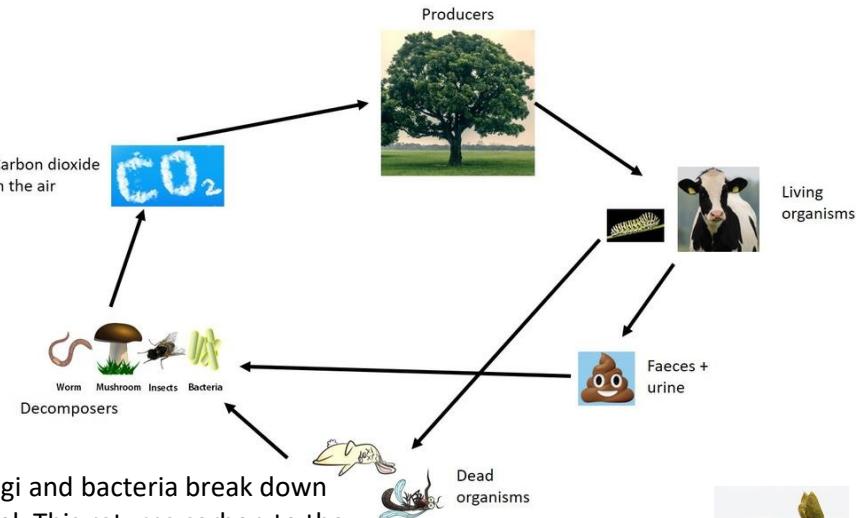
The Water Cycle



The Carbon Cycle



The Decay Cycle

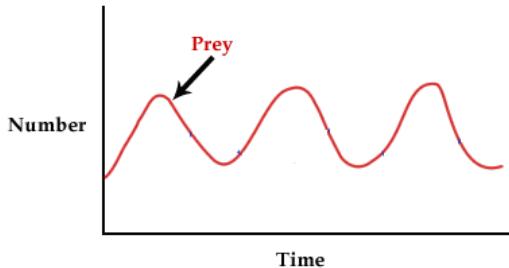


Microbes such as fungi and bacteria break down dead or dying material. This returns carbon to the atmosphere as carbon dioxide and mineral ions to the soil.



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.

1. What is biodiversity ?

- What is the impact of waste management on biodiversity?
- What is the impact land use on biodiversity?
- What is the impact of deforestation biodiversity?
- What is the impact of global warming on biodiversity?

1. How is biodiversity maintained?

1. Give three causes of water pollution?

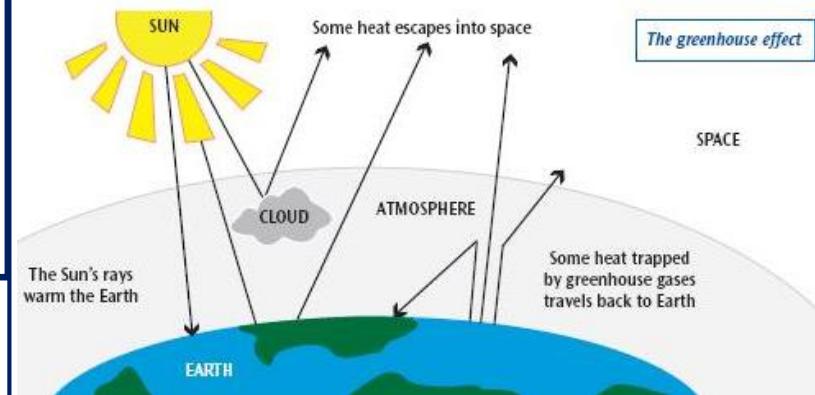
Land pollution

- 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. Give three causes of land pollution?

1. Give three examples of air pollution?

1. What is the greenhouse effect?

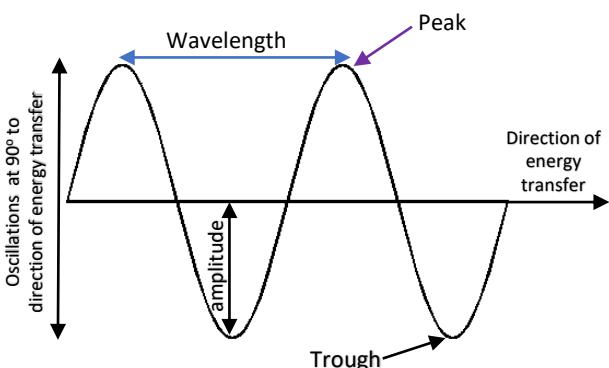
Science T3 Y11 P4.12 Mainstream Wave Properties

Transverse Waves

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

Examples:

- Electromagnetic waves
- Ripples on water.

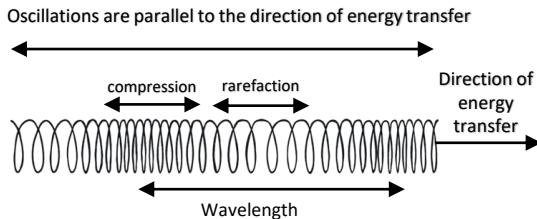


Longitudinal Waves

- 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.

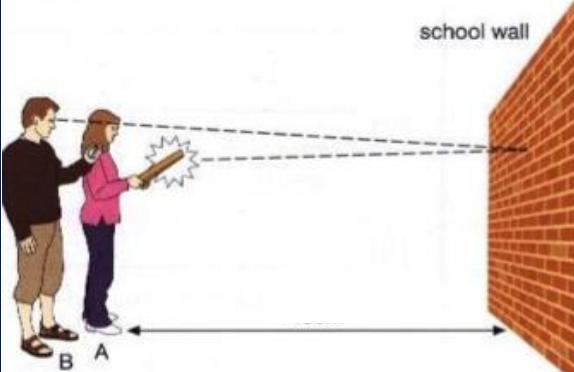
- Calculate speed of sound using:

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

- 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.

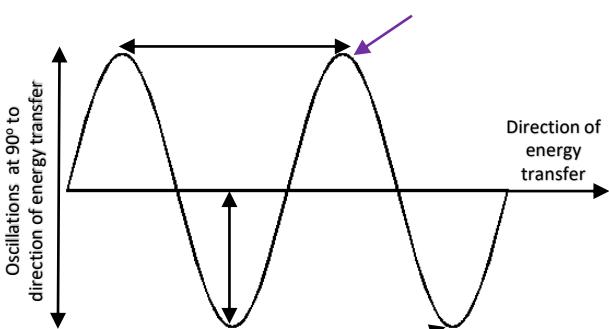
This is unlikely to produce an accurate value for sound in air (330 m/s) as the reaction time of the person operating the stopwatch is likely to be a significant proportion of the time measurement.



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

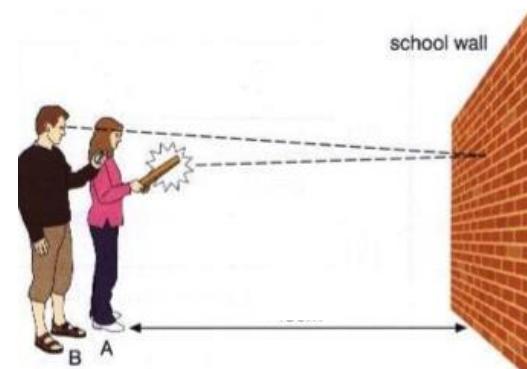
Wavelength

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.



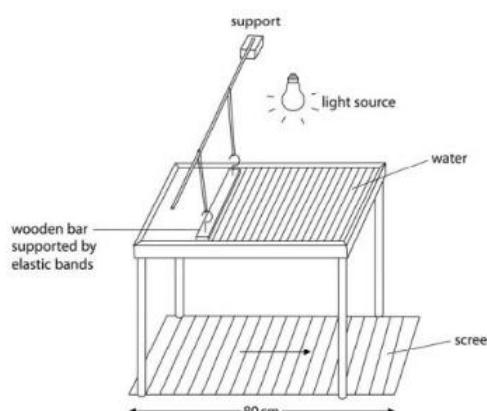
2. What is the biggest source of error in this investigation?

3. What is the speed of sound in air?

Measuring waves in a liquid

Equipment

- Ripple tank
- Measuring ruler
- Stop watch



Method

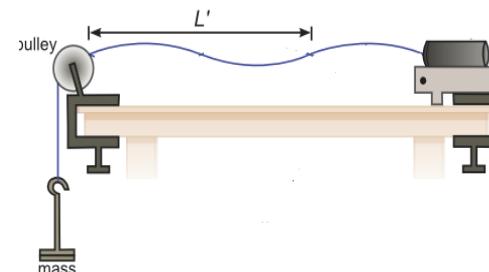
- Set up the equipment as shown and turn on the motor to produce low frequency waves so that they are able to be counted.
- Adjust the lamp until pattern is seen clearly on white screen underneath
- Use a ruler to measure the length of a number of waves (e.g 10) and divide the length by the number of waves to give wavelength. This improves the accuracy of the measurement.
- 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.
- Divide the number of waves counted by the time to give frequency.
- 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

- Set up the equipment as shown.
- Turn on the vibration generator
- Adjust the length of the string until a standing wave is achieved
- The frequency can be read from the vibration generator
- Measure as many complete waves as possible using a rule
- Divide the length by the number of waves to give wavelength
- 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

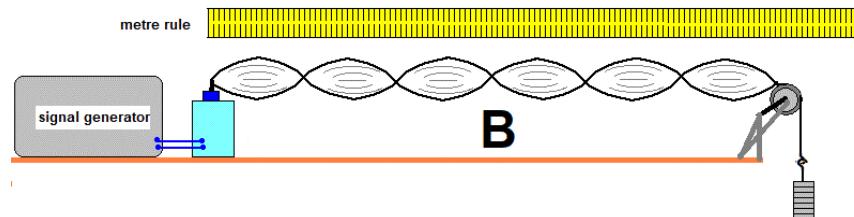
Science T3 Y11 P4.12 Mainstream Wave Properties Required Practical – investigating wave in a solid and a ripple tank

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?

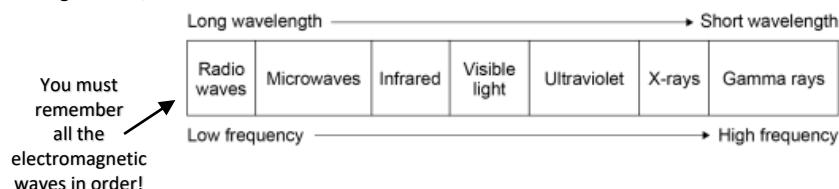


2. How many complete waves are shown in the image above?
3. If the length from the generator to the pulley was measured at 66 cm, what is the wavelength?
4. Why is it better to measure multiple waves and divide to find wavelength rather than measure one single wave?
5. What happens to wavelength when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

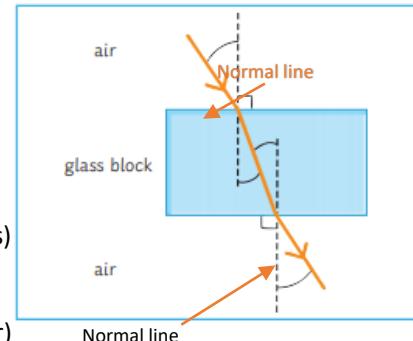
1. State two properties of electromagnetic waves.
2. Write the EM spectrum in order of **increasing** wavelength
3. Write the EM spectrum in order of **increasing** frequency
4. How fast do electromagnetic waves travel?
5. State the uses of:
 - a) radio waves
 - b) microwaves
 - c) infrared
 - d) visible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

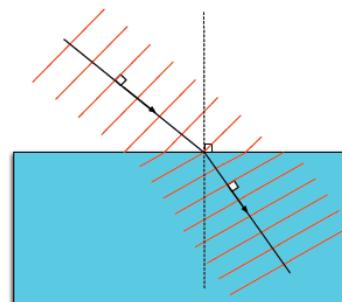
- Ray **slows down** and bends **towards the normal line**.



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 ad 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 ad the infrared thermometer

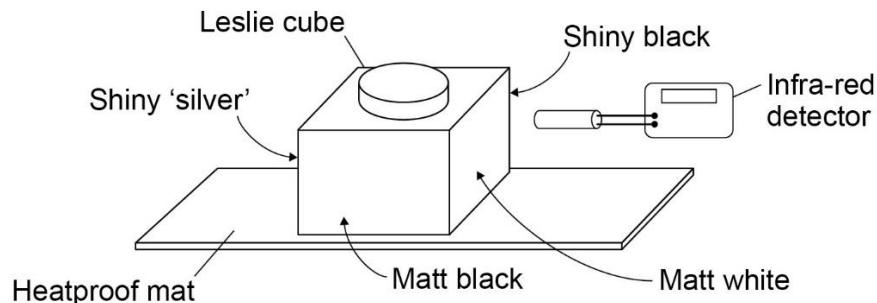
Conclusion

Black matt surfaces absorb and emit the most infrared radiation.

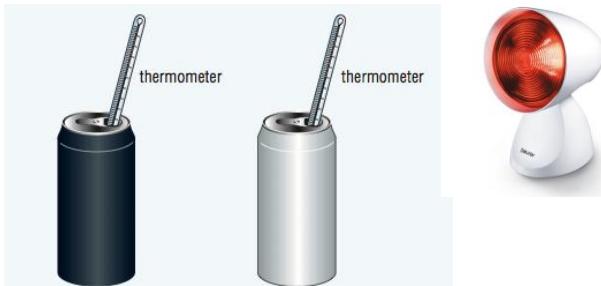
White/silver and shiny surfaces are poor emitters and poor absorbers of infrared radiation

Science T3 Y11 P4.13 Mainstream Electromagnetic waves– Required Practical – 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?

Science T3 Y11 P4.15 Mainstream Electromagnetism

Magnets

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



- Like poles will **repel** each other (e.g. N-N or S-S)
- **Opposite poles will attract** (e.g. N-S)
- Magnetism is a **non-contact** force – magnets do not need to be touching for effect to be observed.

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

Types of magnets

Permanent magnet

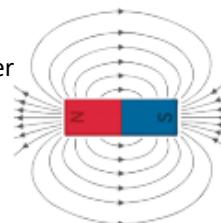
- Produces its own magnetic field.
- Magnetism cannot be turned on or off.

Induced magnet

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

Magnetic Fields

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



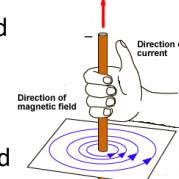
- Magnet field is strongest at the **poles** where the field lines are **closest together**.
- Field lines always go away from **magnetic north** and towards **magnetic south**.

Earth's Magnetic Field

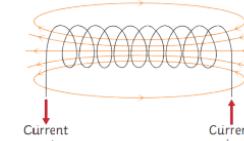
- Earth produces a magnetic field.
- Magnetic compasses use this to help navigation.
- The core of the Earth is made of **iron** (magnetic).

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

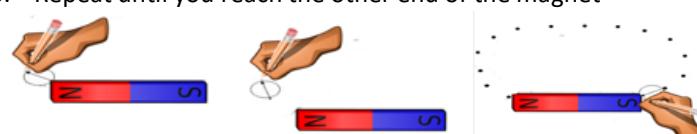


Coiling the wire will form a **solenoid**.



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



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

Electromagnets

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

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

Science T3 Y11 P4.15 Mainstream Electromagnetism

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

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

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

1. Describe a method to plot the magnetic field of a bar magnet.
5. What is an electromagnet?
6. What is meant by induced magnet?
7. State 2 uses of electromagnets.

1. 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)

Where is Rio?		Year 11 OCR A Term 1 – People of the world							
G.	Why is Rio de Janeiro a global city?	H.	Where do people in Rio come from?						
<p>Rio de Janeiro is located in South America. It is located in south Brazil. It borders the Atlantic Ocean.</p>		<ul style="list-style-type: none"> Until 1960 Rio was the capital of Brazil however this has not changed to Brasilia. Rio is still very important. Brazil is 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. 							
<p>The diagram illustrates Rostow's model of economic development. It features a vertical axis labeled 'level of development' and a horizontal axis labeled 'time'. At the bottom left is a yellow box labeled 'The Traditional Society'. Above it is a green box labeled 'Pre-conditions for Take Off'. Further up is a blue box labeled 'Take Off', which leads to a pink box labeled 'The Drive to Maturity'. From this box, an arrow points to an orange box labeled 'High Mass Consumption'. On the left side, there are dates: 1750, 1800, 1850, 1880, 1820, and 1850. Next to these dates are country names: UK, USA, Japan, UK, USA, and USA respectively. A small logo for 'UNIVERSITY OF SWINDON' is visible on the far left.</p>		<ul style="list-style-type: none"> 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. 							
F.	What is Rostow's model?	I.	How has migration influenced the character and way of life within Brazil?						
Human Influence	<ul style="list-style-type: none"> 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. 	<p>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.</p> <p>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.</p>							
Positive impacts of urbanisation		Negative impacts of urbanisation							
<ul style="list-style-type: none"> 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 		<ul style="list-style-type: none"> 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 							
		<p>K.</p> <table border="1"> <tr> <td>Sustainable Management in Rio- Transport</td> <td>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.</td> </tr> <tr> <td>Sustainable Management in Rio- Housing</td> <td>Hillsides 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.</td> </tr> <tr> <td>Sustainable Management in Rio- Waste</td> <td>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.</td> </tr> </table>		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	Hillsides 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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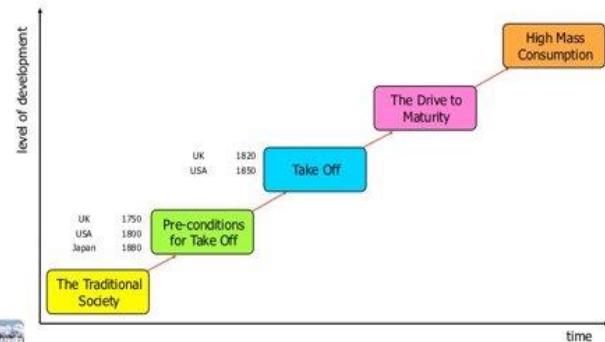
Year 11 OCR A Term 1 – People of the world

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 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 _____. This is where secondary industries _____
- In the future Nigeria may develop to _____
- They will do this by becoming _____
- This will lead to increase in _____ such as nursing and IT support.

Positive impacts of urbanisation

- Employment opportunities in _____.
- Good infrastructure (_____).
- Better _____
- More jobs in _____ sectors

H. Where do people in Rio come from?

- Migration accounts for 65% of _____ growth in Rio de Janeiro. Largely people come from E____e, in particular Portugal because they speak P____e in Rio.
- However, large numbers of people come from other parts of Brazil including the _____ because there are _____, _____, improved _____ and education.
- People also travel from other countries in South America- _____
- Many people come from the USA and UK. These are largely people who are _____ and are attracted due to the _____ industry (specifically in oil exploration).
- Many people come from _____, this is because Rio de Janeiro has a growing _____ 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 _____, there are not many _____ which means that many people must resort to _____. As a result, _____ often rule over the _____. Police have been sent in to pacify these slum areas (make _____) with the aim to improve quality of life for people living there.

Negative impacts of urbanisation

- 40% of people living in f____s do not _____
- Due to un____t there's not much _____ being paid by a large proportion of the population.
- Not enough _____s – 40% of population live in _____s (illegal squatter settlements).
- Only 50% of people have access to h____e.
- Air p____ion – 5,000 deaths/year

K.

Sustainable Management in Rio- Transport

Due population growth, means that the use of c____ has grown by ___ in the last ___ years.

They have expanded the _____ system which is a m____ that runs under the bay and connects various parts of Rio. More and more people are using the _____ and buses; however, they are now extremely busy as there _____. They have also put tolls into the city centre, this means that traffic is _____. Lastly, they have made _____ one way in rush hour. Car use has reduced slightly, however many still use cars for their own safety.

Sustainable Management in Rio- Housing

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Sustainable Management in Rio- Waste

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_____ environmentally friendly than a lot of electricity production, however it does release some methane which is a greenhouse gas. It consumes _____ of rubbish a day (that's 2 busses) and produces electricity for 1000 homes. However, because of the _____ it can be a stinky business.



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.

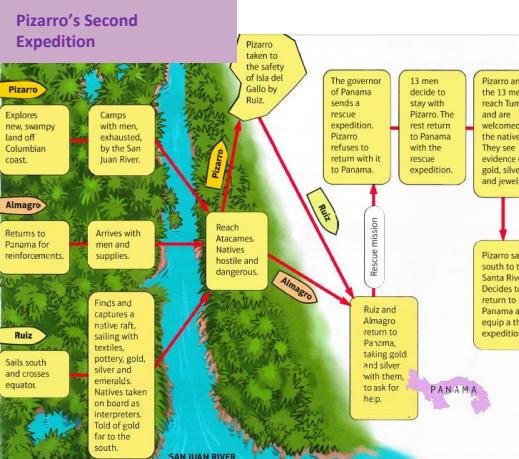
75% of wealth went to Spanish merchants and conquistadors.

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.



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 viceroy.

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 introduce to improve the rights of native people, but encomenderos opposed them and the viceroy of Peru refused to implement them.

Revols 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.

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.

Pizarro and the Conquest of the Inca Empire		Revolt of the Incas 1536
Date	Event	
Dec 1518	Smallpox epidemic in Haiti.	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.
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).	The Siege of Cuzco 1536-1537
April 1532	Huascar is captured and killed. Atahualpa takes over Cuzco.	- 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.
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.	- 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.
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 garroted.	- The siege ended when Spanish forces exploring Chile returned.
1533	Manco made puppet ruler of the Inca Empire.	- Manco withdrew and established a separate kingdom which lasted until 1572.

Founding of La Paz, 1544

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 Gonzalo ruled over the Inca territory for 2 years. The arrival of a Spanish army resulted in his execution and the rebellion 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. Licensed 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



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.

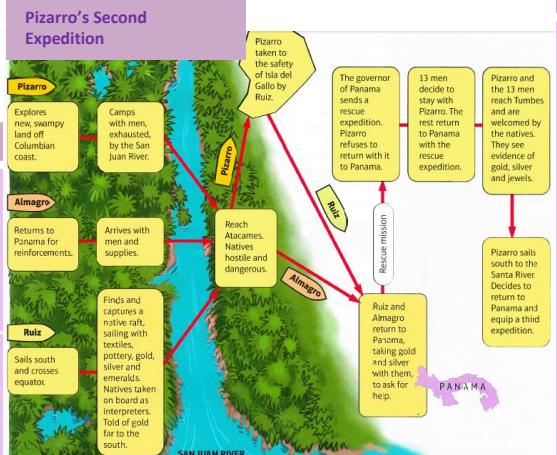
75% of wealth went to Spanish merchants and conquistadors.

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.



Governing the Empire

The Spanish needed to

Bartolome de las Casas –

The New Laws:

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

The role of the encomienda system:

Significance of the New Laws 1542:

Pizarro's appeal to the Spanish King Charles I

	Pizarro and the Conquest of the Inca Empire	Revolt of the Incas 1536
Date	Event	
Dec 1518		
Sept 1520		
1525-1527		
1527		
1529		
April 1532		
Nov 1532		
July 1533		
1533		

The Seige of Cuzco 1536-1537

Founding of La Paz, 1548

Discovery of silver in Bolivia and Mexico

Conquistador Revolt in Peru 1544

Pirates and Privateers

Spanish treasure was a target for



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Growth of Seville

The Slave Trade

Casa de Contratacion (House of Trade)

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.
<p>B. 5 Roots of Usul Ad-Din</p> <p>The 5 roots of Usul ad-Din are central to the Shi'a Muslim faith.</p>		
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



Year 11 GCSE Religious Education KO - Islam Beliefs



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	

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

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



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

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



Year 11 GCSE Religious Education KO - Islam Beliefs



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 creation 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>	J.	<i>Al Qadir</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 	E.	<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"
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 		<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
Entry to Jannah	<p>"enter among my servants! Enter my paradise!"</p> <ul style="list-style-type: none"> 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" 		<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
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 		<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



Year 11 GCSE Religious Education KO - Islam Beliefs



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			
Entry to Jannah		E.	<i>Muhammad</i>
Jahannam		Why was he chosen?	
		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... |

1.1G ¿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,
castaño/a	brown hair colour
corto/a	short
delgado/a	thin
las gafas	glasses
gracioso/a	funny
guapo/a	good looking, handsome
El/la hermano/a	brother/sister
El/la hijo/a	son/daughter
joven	young
largo/a	long
liso/a	straight
la madrastra	stepmother
los ojos	eyes
el padrastro	stepfather
las pecas	freckles
pelirrojo/a	red-haired
el pelo	hair
rizado/a	curly
la tía	aunt
el tío	uncle
viejo/a	old
sensible	sensitive

1.1F Hablando de los amigos

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

1.1H Relaciones con la familia

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

Key Verbs

Lleverse 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	Discutimos We argue
Se llevan They get on	Van They go	Soportan They can stand	Hacen They do	Discuten They argue

1.1I 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
soltero/a	alone, only
tener suerte	single
las vacaciones	to be lucky
ya no	holidays
	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

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



What we are learning this term:

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

6 Key Words for this term

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

2.1G Comunicarse por internet

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

2.1F ¿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

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

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

2.2F La tecnología portátil

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

2.1H Las redes sociales

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

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

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

GCSE Unit 3 SPANISH Knowledge organiser.

Topic Free Time Activities



What we are learning this term:

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

6 Key Words for this term

- | | |
|-----------------|----------------|
| 1. disfrutar | 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

3.3G ¿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 (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

3.2G Comer y Beber

el perro 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	
durante	
el ejercicio	
el entrenamiento	
entrenar	
el equipo	
el esquí	
este, esta	
ganar	
el jugador	
mañana	
el miembro	
el partido	
probar	

GCSE Unit 4 SPANISH Knowledge organiser.

Topic Customs and Festivals



What we are learning this term:

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

6 Key Words for this term

- | | |
|---------------|--------------------|
| 1. divertirse | 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

4.1F 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)

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

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



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

Key Verbs

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

5.1H Mi casa y mi barrio

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

5.1F ¿Cómo es tu casa?

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

GCSE Unit 6 SPANISH Knowledge organiser.

Topic Social Issues



What we are learning this term:

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

6 Key Words for this term

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

6.1G ¿Quieres ser voluntario/a?

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

6.1F Me gustaría ayudar

agradecer	to thank
aprender	to learn
el asombro	amazement, surprise
contar (que)	to tell, to relate
el curso	school year, course
los/las demás	the others, the rest
esperar	to wait for, to hope, to expect
formar parte	to be part (of)
hacer la cama	to make the bed
el centro de menores	children's home
tutelados	
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

6.2G ¿Comes bien?

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

Key Verbs

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

6.1H La importancia de hacer obras benéficas

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

6.2H ¿Qué opinas?

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



GCSE Unit 7 SPANISH Knowledge organiser.

Topic Global Issues

What we are learning this term:

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

6 Key Words for this term

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

7.1G Reutilizar, reducir, reciclar

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

7.1F Protegiendo el medio ambiente

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

7.2G Los necesitados

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

Key Verbs

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

7.2F Los "sin techo"

el destrozo	damage, destruction
escoger	to choose
la falta	lack
formar parte de	to be part of
el/la gamberro/a	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

7.1H Problemas ecológicos

acercarse a	to approach
el agujero	hole
la aldea	(small) village
alejar	to move (something)
further away	
alejarse de	to move further away
from	
amenazar	to threaten
arruinar	to ruin
el atasco	traffic jam, hold-up
el ave (marina) (fem.)	(sea) bird
el calentamiento	global warming
global	
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	
cortar	to constitute
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

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

8.2F Un folleto turístico

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

8.2H Describiendo tu región

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

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

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

GCSE Unit 9 SPANISH Knowledge organiser.

Topic My Studies



What we are learning this term:

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

6 Key Words for this term

- | | |
|----------------|-----------------|
| 1. asignaturas | 4. suspender |
| 2. notas | 5. licenciatura |
| 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
necesar 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 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	Suspandes 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

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
fea/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	building
escolar	school (adj.)
firmar	to sign
el individuo	individual
las instalaciones	facilities
el intercambio	exchange
llevar	to take, carry, wear
el maquillaje	make up
los materiales	materials
mientras	while
el nombre	name
la palabra	word
el pasillo	corridor
el pendiente	earring
ponerse en contacto	to get in touch
prohibido	prohibited, banned
la puntualidad	punctuality
la regla	rule
el respeto	respect
sufrir	to suffer
traer	to bring
el trayecto	journey
el uniforme	uniform

Key Verbs

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

10.1H Lo bueno y lo malo del instituto

el acoso	bullying
aguantar	to put up with
aislado/a	isolated
alegrar	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



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	career
carrera profesional	professional
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
fea/a	ugly
la informática	information technology, IT
mejor	better, best
mientras	while
la nota	grade, mark, result
la opción	option
la oportunidad	opportunity
quedarse	to stay
el resultado	result
sacar buenas / malas notas	get good / to get bad grades
seguir + gerund	to carry on ...ing

11.1F ¿Trabajar o estudiar?

considerar	to consider
demostrar	to show, demonstrate
la desventaja	disadvantage
estar harto/a de	to be fed up with
estar obsesionado/a con	to be obsessed with
furioso/a	furious
ganar	to earn, to win, to gain
la habilidad	skill, ability
horroso/a	dreadful
imaginar	to imagine
inútil	useless
el 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
adequado/a	adequate, decent
aislado/a	isolated
al final de	at the end of
apetecer	to appeal
aprender	to learn
así que	so
avanzado/a	advanced
el beneficio	benefit
bien pagado/a	well paid
la calidad	quality
la carrera (universitaria)	university course, career
claro	of course
conseguir	to get, to manage, to achieve
el consejo	advice
deber	to owe
devolver	to give back, to pay back
disfrutar	to enjoy
la edad	age
escoger	to choose
esperar	to wait for, to hope, to expect
estar a punto de	to be about to
la experiencia laboral	work experience
fea/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



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	businessman / business woman
negocios	
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.

$$\text{Gross profit margin} = \frac{\text{Gross Profit}}{\text{Sales revenue}} \times 100$$

2. Net Profit Margin	
There are three main types of production:	

Type of Production	Advantages and Disadvantages
Job Production	<p>Advantages: Highly flexible; gives the customer exactly what they want.</p> <p>Disadvantages: High production costs. Skills may be in short supply, making it hard for the business to grow</p>
Batch Production	<p>Advantages: Gain some cost advantages from producing several items at once...yet still able to offer customers the colour/size they want</p> <p>Disadvantages: May be limited scope for automation, making production costs far higher than with flow production. Not as flexible as job production.</p>
Flow Production	<p>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.</p> <p>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.</p> <p>Lacks flexibility in terms of meeting individual customer needs.</p>

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



Year 11 PRODUCT DESIGN Term 3



A.	Physical & Working Properties
Physical properties are the traits a material has before it is used.	
Absorbency 	Ability to soak up moisture, light or heat
Density 	How solid a material is
Fusibility 	Ability of a material to be heated and joined to another material when cooled
Electrical Conductivity 	Ability to conduct electricity
Thermal Conductivity 	Ability to conduct heat
Working properties are how a material behaves when it is manipulated.	
Strength 	Ability of a material to withstand compression, tension and shear
Hardness 	The ability to withstand impact with damage
Toughness 	Materials that are hard to break or snap are tough & can absorb shock
Malleability 	Being able to bend or shape easily would make a material easily malleable
Ductility 	Materials that can be stretched are ductile
Elasticity 	Ability to be stretched and then return to its original shape

What we are learning this term:		
A. Physical & Working Properties	B. Forces & Stressors	C. Types of Motion
D. Paper & Card/Boards	E. 6 R's	
F. Natural & Manufactured Timbers		
B. Forces and Stressors		C. Types of Motions
<p>Forces apply stress to objects, causing them to break or change shape.</p> <p>Different materials can withstand different forces.</p>		<p>Linear </p> <p>Moves something in a straight line. E.g. a train moving down a track</p>
<p>Tension </p> <p>Is a stretching or pulling force. E.g. the ropes of a suspension bridge</p>		<p>Reciprocating </p> <p>Has a repeated up and down motion or back-and-forth motion. E.g a piston or pump</p>
<p>Compression </p> <p>Is a pushing or squashing force, e.g. the weight of a building on its foundation</p>		<p>Rotary </p> <p>Is where something moves around an axis or pivot point. E.g a wheel</p>
<p>Bending </p> <p>Is a combination of tension and compression. It exerts tension on one side and compression on the other, e.g. bending anything</p>		<p>Oscillating </p> <p>Has a curved backwards and forwards movement that wings on an axis or pivot point. E.g a swing or clock pendulum</p>
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	
Thermal Conductivity	Ability to conduct electricity
Working properties are _____.	
Strength	
Toughness	The ability to withstand impact with damage
Ductility	Being able to bend or shape easily would make a material easily malleable
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	
E. 6 R's	F. Natural & Manufactured Timbers	
B. Forces and Stressors		C. Types of Motions
Forces apply _____ to objects, causing them to _____ or _____.		Linear
Different materials can withstand different forces.		Tension
Tension		Reciprocating
Bending		Rotary
Torsion		Sliding
Is a pushing or squashing force, e.g. _____.		
Is a cutting force. The opposing forces are not directly opposite each other, e.g. _____.		

E.	6 R's
Repair	You can use the 6R's when designing to help reduce the impact that new products have on the environment.
Recycle	You can extend a product's life by passing it on or using it again.
Reduce	You should think about your design carefully. Is it needed?
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 _____.	
Hardwood	Softwood
Ash	
	Pine
Mahogany	
Balsa	Softwoods are _____
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.

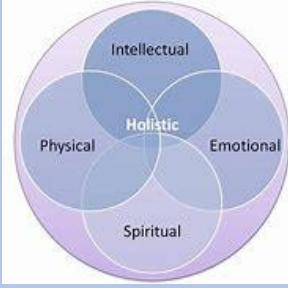
Desirable food changes

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

-
-
-

What we are learning in LAA:	
A.	Key words Definitions of health and wellbeing 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	 <p>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.</p>
Negative definition	 <p>Looks at the absence of physical illness, disease, and mental distress. You have a negative attitude towards your health and wellbeing if you:</p> <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	 <p>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:</p> <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	Dominant: If a gene is dominant a child inheriting it from only one birth parent will have the condition, e.g Huntington's disease.	Effects of inherited disorders
	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.	
	<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?**

- Diet that contains the correct nutrients in the right proportions to keep out bodies and minds healthy.
- It is also a lifestyle choice
- Choosing to eat too much or too little might make us less able to take all the opportunities that life offers.

Overweight or underweight may:

- A person over weight or under weight may:
- Be prone to illness and conditions
 - Have their life expectancy reduced
 - Be less able to exercise effectively
 - Miss out on learning experiences
 - Miss out on some sporting activities
 - Be less successful in job interviews
 - Feel embarrassed and self-conscious about their appearance in social situations.

Essential parts of a healthy diet:

- Fats (saturated and unsaturated)
- Carbohydrates (sugars and starches)
- Minerals
- Vitamins
- Proteins

Eat well guide says you should eat:

- Eat at least 5 portions of a variety of fruit and vegetables every day.
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible.
- Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options.
- Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily).
- Choose unsaturated oils and spreads and eat in small amounts.
- Drink 6-8 cups/glasses of fluid a day.

If you eat more than you need:

- The body will store food as fat and this can lead to:
- Obesity, heart disease, high blood pressure, Strokes, Tooth decay or cancer

If you eat less than you need

- 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

Chronic illness- Illness comes on gradually, is long term (more than 3 months) and generally can be treated but not cured. E.g. Asthma, Diabetes, epilepsy, bipolar disease, Alzheimer's disease

Acute illness- Illness comes on quickly, is short term and can be cured. E.g. Cold, flu, broken bones, heartburn, appendicitis or Diarrhoea.

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

Possible negative effects of chronic illness**Physical:**

- poor rate of growth
- Unusual physiological change during puberty
- Restricted movement

Emotional:

- Negative self-concept
- Stress
- Decision making

Intellectual:

- Disturbed learning because of missing school
- Difficulties in thinking and problem solving
- Memory problems.

Social

- Isolation
- Loss of independence
- Difficulties developing relationships

F. What are the effect of exercise?**Positive effects of exercise**

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.

Intellectual: improved brain function like memory and thinking skills.

Emotional: improves confidence and mood and reduces stress. Aid relaxation and sleep and lead to better self concept.

Social: encourages social interaction, reducing isolation and improving social skills.

Negative effects of exercise

Physical: Obesity and associated health problems.

Intellectual: Reduced pain performance, hard to concentrate and retain information.

Emotional: poor self-concept and reduced ability to cope with stress.

Social: Fewer opportunities for social interactions.

G. What are the effect of excessive substance use?**Negative effects of excessive alcohol consumption**

Physical: Alcohol dependence, damage to major organs: liver, heart, kidneys, pancreas. Cancers: mouth, throat, oesophagus, liver, breast. Infertility and impotence, weight gain.

Intellectual: difficulty in making decisions, depression and anxiety, chance of stroke and brain damage, impaired brain development of unborn baby.

Emotional: poor self-concept, poor judgement leading to a risk of accidents and unsafe sex, can have an impact on relationships, depression.

Social: breakdown of relationships, domestic violence, social isolation

What we are learning in LAA:

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

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

When people feel they belong to a group and can interact with others. Social interactions can happen between family members and friends, work colleagues, school learners, members of a community or interest groups.

Social isolation

Occurs when people do not have regular contact with others. This may be because they don't go out much because of physical illness, reduced mobility or unemployment. They might have a difficulty in communicating if they have a mental illness, depression or learning difficulties. Lastly, a person might be discriminated against because of culture, religion or disability.

Positive effects of relationships

Physical: physical support and day to day care and practical assistance.

Intellectual: shared experiences, supported learning and thinking

Emotional: unconditional love, security and encouragement, positive self-concept, feeling content, ability to build relationships with people outside the family, independence and confidence.

Social: Companionship, social circle increases.

Negative effects of social isolation

Physical: poor lifestyle choices like smoking and drinking, poor diet that can cause eating disorders.

Intellectual: reduced ability to use thinking skills, missing school/work

Emotional: feelings insecure, depression, anxiety, negative self-concept, feeling of hurt, loneliness and distrust, lack of independence, difficulty in controlling emotions.

Social: difficulties in building relationships as lack skills.

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

- Increased heartbeat
- Increased breathing rate
- Tense muscles
- Sweaty palms
- Dry mouth
- High blood pressure
- Loss of appetite
- Sleeplessness
- Digestive problems

Intellectual effects

- Forgetfulness
- Poor concentration
- Difficulty in making decisions

Emotional effects

- Difficulty in controlling emotions
- Feeling insecure
- Negative self-concept
- Feeling anxious and frightened
- Loss of confidence

Social effects

- Difficulty in making friends and building relationships
- Breakdown of close relationships
- Social isolation

J. What are the hazards of Smoking**Heart disease and poor circulation mean:**

- increased blood pressure
- increased risk of heart attack
- narrowing of the arteries.

Carbon monoxide causes:

- decreased oxygenation
- poor growth
- extra work for the heart
- increased risk of thrombosis.

Exposure in childhood means that children:

- are prone to chest infections and asthma
- tend to be smaller and weaker
- do less well at school.

Exposure in pregnancy causes:**Irritant particles cause:**

- bronchitis
- emphysema
- asthma
- smoker's cough.

Nicotine causes:

- addiction
- increased blood clotting leading to thrombosis.

Conditions such as:

- stroke
- gum disease.

Tar causes cancers of the nose, throat, tongue, lungs, stomach and bladder.**Smokers':**

- breath and clothes smell of smoke
- hands and nails are nicotine stained
- faces often become wrinkled from the effects of smoking.

K. What are the effects of Personal Hygiene?**Positive effects of good personal hygiene**

- Helps prevent the spread of infection
- Improves self-concept
- Reduces number of bacteria that lives on us.

You must:

- Brush your teeth
- Shower daily or bathe
- Wash your hair regularly
- Keep fingernails and toenails clean and trimmed

Negative effects of poor personal hygiene

Physical: catching and spreading disease like food poisoning, sore throat, meningitis and athlete's foot. Bad body odour, bad breath and tooth decay.

Emotional: loss of friendships and social isolation. Might be bullied and poor self-concept.

Social: low social interactions as people don't want to be friends with someone that neglects their hygiene. Social isolation.

When caring for others:

- Bad hygiene can stop effective 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	<p>Accessing HSC services can be influenced by values, traditions, way of life and beliefs of the society or group.</p> <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	<p>Research shows that men are less likely to talk about their health and wellbeing than women. This is because men are:</p> <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	<p>Research shows that people who are better educated are more likely to seek help. This is because:</p> <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	<p>In some cultural groups there is a stigma attached to certain conditions like depression. Stigma is a word used to describe something that people feel embarrassed about. Therefore, they wouldn't seek help.</p>

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 worries 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	Resting pulse rate is measured when a person has been still for about 5 minutes. Health reading for an adult is 60-100 bpm. Pulse rate during exercise: 220bpm minus the person's age.
Blood pressure	<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: 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 liters 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. 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

Interpreting data on smoking



- Smoking causes around 96,000 deaths in the UK annually.
- Smokers under the age of 40 are 5 times more likely to have a heart attack than non-smokers.
- Smoking causes 80% of deaths from lung cancer, 80% of bronchitis and 14% of deaths from heart disease.
- More than 25% of all cancer deaths are caused by smoking.
- On average a smoker will die 10 years earlier than a non-smoker.
- Smokers are more likely to develop facial wrinkles.
- Smoking is a cause of impotence and can lead to sperm abnormalities.

Interpreting data on alcohol

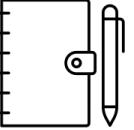


- Strongly linked to at least 7 types of cancer
- Alcohol-related liver disease accounts for 37% of liver disease and deaths.
- 2/3s of cases of chronic pancreatitis are caused by heavy drinking
- You are between 2 and 5 times more likely to have an accident or injury
- Each drink per day increases the risk of breast cancer in women between 7-13%
- Men and women should not drink more than 14 units a week and not all in one go.

Interpreting data on inactivity



- Increased risk of breast cancer by 17.8% and colon cancer by 18.7%
- Increased risk of type 2 diabetes by 13%.
- Increased risk of coronary heart disease by 10.5%
- Leads to obesity and joint pain
- 16.9% of all premature deaths are caused by inactive lifestyle.
- Active people have a lower risk of premature death.
- People who are inactive visit their GP more often and they spend 38% more time in hospital.

What we are learning in 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		<p>To lower blood pressure:</p> <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 <p>To reduce BMI:</p> <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.		
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.		<p>To increase peak flow reading:</p> <ul style="list-style-type: none"> Half the number of cigarettes smoked each day Use nicotine replacement therapies Join an exercise or dance class. <p>To reduce pulse rate and improve recovery time after exercise:</p> <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.
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. 		<p>D. SMART targets for health improvement plan</p> <p>Specific</p> <p>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.</p> <p>Measurable</p> <p>A target of 'lose weight' is too vague. A specific amount must be stated so you can prove you have met your target.</p> <p>Achievable/attainable</p> <p>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'.</p> <p>Realistic</p> <p>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.</p> <p>Time-related</p> <p>The target must have a deadline, so that you know when you need to achieve the target by, and progress can be assessed.</p>
B.	Health improvement plan		
What is it?	Health and well-being improvement plans are often based on an individual's physiological and lifestyle indicators. Plans should be person-centred and include goals, actions and targets and possible sources of support.		
The plan will identify:	<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 ways to overcome them. 		
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 		<p>E. Sources of support</p> <p>Informal support</p> <p>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 an 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.</p> <p>Professions (formal) support</p> <p>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.</p> <p>Voluntary support</p> <p>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.</p>

F.	What are the potential obstacle to implementing plans?	G.	What are the possible obstacles to accessing services?									
		Type of obstacle	Possible obstacles	Suggestions to overcome obstacles								
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. 	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-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 think 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. 	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. 								
Emotional/psychological-Acceptance of the current state	<ul style="list-style-type: none"> People may 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. 	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. 								
Time constraints	People find that they do not have the time to achieve their health improvements targets because of: <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 	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 								
Availability of resources	Financial obstacles: <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 	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 								
Unachievable targets	<table border="0"> <tr> <td>• Expectations too high</td> <td>• Targets are not suitable for the individual</td> </tr> <tr> <td>• Targets are not clear</td> <td>• Fear of not being able to meet targets</td> </tr> <tr> <td>• There are too many targets</td> <td>• Not being in the right frame of mind to commit to the plan, e.g. due to depression.</td> </tr> <tr> <td>• Timing is wrong/poor</td> <td></td> </tr> </table>	• Expectations too high	• Targets are not suitable for the individual	• Targets are not clear	• Fear of not being able to meet targets	• There are too many targets	• Not being in the right frame of mind to commit to the plan, e.g. due to depression.	• Timing is wrong/poor		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.
• Expectations too high	• Targets are not suitable for the individual											
• Targets are not clear	• Fear of not being able to meet targets											
• There are too many targets	• Not being in the right frame of mind to commit to the plan, e.g. due to depression.											
• Timing is wrong/poor												
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 can't admit that they have a problem 											