# 100% book - Year 11 Mainstream

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



# Term 2

Swindon	Academy 2025-26
Name:	
Tutor Group:	
Tutor & Room:	

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

If you are determined to learn, no one can stop you."





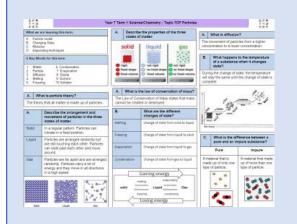






### How to use your 100% book of Knowledge Organisers and Quizzable Organisers

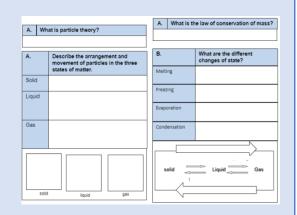
### **Knowledge Organisers**



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

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

### **Quizzable Knowledge Organisers**



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

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

### **Top Tip**

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

# **Expectations for Prep and for using your Knowledge Organisers**

- 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.
- 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	Step 2	Step 3
Check Epraise and identify what words /definitions/facts you have been asked to learn.  Find the Knowledge Organiser you need to use.  **Planer**    Planer**	Write today's date and the title from your Knowledge Organiser in your Prep Book.  A What is particle theory? The beay that all matter is made up of particles.  A period of matter.  Sold In a regular pattern Particles can move and part of matter in the first of matter in the first of matter in the first of matter.  Sold In a regular pattern Particles on the first of matter in the particle of matter.  Sold In a regular pattern Particles on the first of matter in the particle of matter.  Sold In a regular pattern Particles can be particled on the particle of matter.  Sold In a regular pattern Particles on the first of matter in the particle of matter.  Sold In a regular pattern Particles on the first of matter in the particle of mattern in the pa	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 node of particles  Solid = regular patter  Particles wheate in fixed position  Liquid = particles are arranged randomly but  ore still touching each other and  mare around.  Gas = Particles are far apart and are  arranged randomly Particles carry lax  at energy
Step 4	Step 5	Step 6
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	Open your quizzable Knowledge Organiser.  Write the missing words from your quizzable Knowledge organiser in your prep book.  A What is particle theory?  A Describe the arrangement and states of matter.  B What is the law of conservation of mass?  A What is particle theory?  A Describe the arrangement and states of matter.  Self quizzangement / markin har of matter.  Continued of matter.  Cont	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  porticles vibrate in fixed position  Li and = particles fre arranged randomly but  are still touching each other and  mare ground  Gas = Particles are for apart  arranged randomly Particles carry  of energy

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

### AN INSPECTOR CALLS Traditional 1. Context 2. Key Characters

### (1894-1984) Dates: Written in 1945 First performed: In Moscow, Russia. in 1945 Era: Edwardian

Genre: Drama

in 1912

Playwright: John Boynton Priestley

Set: Fictional town Brumley 'an

Structure: Three Act Play

industrial city in the north Midlands'

Pre and Post War - Before the first

world war there was deemed to be

regarding the prospect of any war

a general air of complacency

suffering of it Became concerned with the effects of social inequality in Britain in 1930s

Biography of Priestley

Born in Yorkshire in 1894.

became politicised by the

Fought in the first world war and

Set up a new political party in 1942, The Commonwealth Party. It merged with the labour Party and was integral in developing the welfare state

Socialism - Socialism is an approach to economic and social systems that is characterised by social ownership. democratic control and high levels of equality. Socialism is generally

taking pace. There were strong concerned with ensuring that distinctions between upper and disparities between wealth and social lower classes, society was deeply status are erased from society. After patriarchal. After the second word the two World Wars British society war ended in 1945, class distinctions was far more open to socialist ideas. had been greatly reduced by the two In An Inspector Calls, the Inspector wars and women had earned a more harbors socialist attitudes. valued place in society After 1945

there was a desire for more sweeping social change Social and Moral Responsibility -Attitudes towards social and moral responsibility changed rapidly in the tine between when the play was set

and wealth was towards looking

after one's own. By the mid-1940s

everyone in society.

Well-Made Play century

play

complex

climax

Primarily concerned with events that

drama from the 19th The events build to a

happened before the

Plot is intricate and

A popular type of

FORM - The play fits into three possible forms: Morality Play Most popular

towards communal responsibility for

however, the Labour party under Attlee won a landslide election reflecting a wave of enthusiasm

(1912) and the time the play was written (1945). In 1912 the general attitude of those with social status

passenger liner that sank in the North Atlantic ocean in the morning hours of

15th April 1912, killing around 1500. The Titanic was designed to be the pinnacle of both safety and comfort,

Birling claims this, thus immediately

losing the respect of the audience. It

**Crime Thriller** 

crime

Involves a

gripping tale

The audience

based around a

receives clues and

must guess what

has happened

the climax

before the end

All is revealed by

can serve as a symbol of the hubris

and arrogance of man.

during 15th and

They taught the

audience lessons

that focused on

Characters who

committed those

sins were punished

sins

the seven deadly

16th centuries

The Titanic - RMS Titanic was a British

and due to its enormous size and

quality was frequently labeled

'unsinkable'. In An Inspector Calls

Social Responsibility

Age and the

**Generational Divide** 

Class and Power

Gender

of his views.

relationship with Gerald.

Priestley advocates a socialist message of collective

3. Central Themes

Birling. The older characters begin to question whether she really is one person.

everyone else's. Critical of parents.

seeking to prove he wasn't real.

Eva Smith: Doesn't appear in the play, but her suffering and abuse represents that of all the working classes. She also calls herself both Daisy Renton and Mrs

one's-self. Fails to understand her own children.

Inspector Goole: An enigmatic (mysterious) figure who serves as Priestley's

mouthpiece and advocates social justice. He serves as the Birling's conscience

Mr Arthur Birling: A capitalist and business owner who opposes social change

and greater equality. He is a self-made man and lacks the refined manners of the

upper classes. Made a fool by Priestley to highlight the arrogance and absurdity

Mrs Sybil Birling: Her husband's social superior, Mrs Birling is involved in charity

work but contradictorily believes in personal responsibility and looking after

throughout the play, embracing the views of the Inspector and challenging the

social indifference of her parents. She becomes wiser and more cautious in her

Eric Birling: In his early twenties, he drinks too much and forces himself upon

Eva Smith. Whilst she is pregnant with his child, he steals from his father to

Shelia Birling: Young and initially enthusiastic, Sheila grows and changes

Gerald Croft: A businessman engaged to Sheila, Gerald a relationship with Daisy Renton (Eva Smith). Even though he sits between he two generations he is politically closest to Birling and fails to embrace the Inspector's message, instead

responsibility for one another. The Inspector serves as his

generation also come to embrace it. The suffering of Eva

Smith highlights the powerlessness of the working classes

Priestley presents a view that there is hope for change

and that it lies with the younger generation. Both Sheila

and Eric change for the better, maturing and becoming

Inspector's message. They also become vocal critics of

Priestley highlights the immense power that business

arrogant and lacking in empathy. He demonstrates

played a pivotal role in World War 2 and were

owners wielded over their workers and presents them as

Edwardian society's preoccupation with wealth and status

at the cost of the individual as a way of promoting change

At the time the play was first performed, women had just

empowered by the freedom work provided them. In the

mother. However, the play still highlights the awful

1912 setting, we see Sheila's growing independence vs her

vulnerability of women and the outdated stereotyping of

voice in conveying this ideology, but the younger

and the need for a society that protects is most

more empathetic as they come to embrace the

their parents' indifference to Eva's suffering.

in post-WW2 Britain.

them.

Facade

**Proletariat** attempt to support her. Grows and changes, realises his own wrongs along with Bourgeoisie Aristocracy

Catalyst

**Antithesis** 

Dramatic Irony

Plot Twist

Cliffhanger

Directions

Lighting

Props

Contrast and

Juxtaposition

Entrances/Exit

Stage

Morality

4. Key Vocabulary

Capitalist

Socialist

Ideology

Hierarchy

Patriarchy

Preiudice

Responsibilit

play.

5. Key Terminology, Symbols and Devices

war won't happen

detailed.

Inspector.

socialism.

of Edwardian England.

duty to deal with something.

one another and social equality for all.

A society in which power lies with men.

An opposition to or opinion about something/someone based upon what they are e.g. working class, female etc. The belief that some behaviour is right and some is wrong. The working class.

Priestley uses stage directions to indicate how the stage

Physical objects used in the play. The photograph plays a

key role in identifying Eva. The doorbell interrupts Birling.

Deliberately placing two very different things along side

one another to draw comparisons e.g. Birling and the

should be lit. Changes to 'brighter and harder' for

Believing in private wealth and business aimed at making

profit for business owners. Independent and self-reliant.

Believing in shared ownership, collective responsibility for

Being accountable or to blame for something, or having a

A ranking of status or power e.g. the strict class hierarchy

A political viewpoint or set of beliefs, for example

The capitalist class in possession of the means of acquiring The highest class in society and often holding titles passed

from father to son, for example Lord and Lady Croft. A false front or surface-level illusion, for example the façade of family happiness in the opening scene of the

Someone or something that speeds up or triggers an event.

When something is the opposite of something else. When the audience is aware of something that a character is not aware of, for example Birling believing

When a story suddenly departs from its expected path and something very unexpected happens. The final phone Each act ends on a particularly dramatic, revealing moment that creates a sense of tension and anticipation.

When the playwright instructs actors/director to perform in a particular way. Priestley's are unusually Characters frequently leave or enter the stage at dramatic moments. Some characters miss important

	AN INSPECTOR CALLS Traditional					
1. Contex	xt		2. Key Characters	4. Key Vocabulary		
Playwrigh	<u>t:</u>	Biography of Priestley	Inspector Goole:	Capitalist		
Datas				Socialist		
Dates: First perfo	ormed:		Mr Arthur Birling:	Ideology		
		•		Responsibility		
Era: Genre:		•	Mrs Sybil Birling:	Hierarchy		
Set:				Patriarchy		
Structure:	<u> </u>		Shelia Birling:	Prejudice .		
Due and D		Socialism –		Morality		
Pre and Post War – So		Socialism –	Eric Birling:	Proletariat		
				Bourgeoisie .		
			Gerald Croft:	Aristocracy		

Eva Smith:

Social

ty

Responsibili

Age and the Generationa I Divide

Class and Power

Gender

Crime Thriller

The Titanic -

**FORM** – The play fits into three possible forms:

**Morality Play** 

**Social and Moral** 

Responsibility -

Well-Made Play

3. Central Themes

Façade

Catalyst Antithesis

**Dramatic Irony** 

Plot Twist

Cliffhanger

**Stage Directions** 

**Entrances/Exits** 

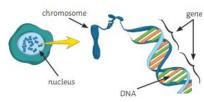
Lighting

Props

Contrast and Juxtaposition

5. Key Terminology, Symbols and Devices

### Cells and cell division

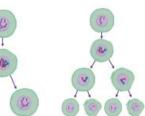


The chromosomes are in the nucleus of cells Humans have 46 chromosomes.

Chromosomes contain genes, which code for proteins. In body cells, chromosomes are in pairs – one from each parent.

In sex cells (gametes) they are not in pairs and there is half the number of chromosomes (e.g. 23 in humans)

### <u>Cell division – two types:</u>



Mitosis (in all body cells)	Meiosis (in testes and ovaries)	
2 daughter cells	4 daughter cells	
Daughter cells = genetically identical	Daughter cells = not genetically identical	
Cell divides once	Two divisions	
Daughter cells have same number of chromosomes as original cell	Daughter cells <b>have half</b> the chromosomes as original cell	
Used for growth and repair.	Produces gametes for sexual reproduction	

### Reproduction

Two types of reproduction – sexual and asexual.

	Sexual	Asexual
Number of parents	2	1
gametes used?	Yes	no
Variation in the offspring	lots	None (unless mutations occur) Offspring are clones

### **Sexual reproduction**





The sperm and egg have half of the genes for the offspring. (in humans 23 chromosomes)
At fertilisation, the sperm and egg nuclei join. (23 + 23 = 46 chromosomes)

There are two genes for any one characteristic – one on the chromosome from mum and one from Dad Different forms of the same gene are called **alleles** If the alleles are the same, the person is **homozygous** If the alleles are different the person is **heterozygous** 

### E.g.:

B = brown hair (dominant) b = red hair

BB = homozygous, brown hair Bb = heterozygous, brown hair

bb = homozygous, red hair

Gene from each parent



### How to complete a punnet square

If A = blue eyes, a = green eyes Calculate the probability of two heterozygous people having a green eyed









Step 1 Put one parents alleles into the boxes at the top

Put the other parents alleles into the boxes down the side

Step 2

Step 3 Write the alleles from parent one in all boxes underneath

Step 4
Put the alleles
from the
second parent
into the boxes
to the right

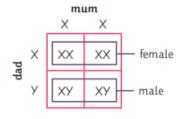
### Probability

A green eyed child would have aa genotype.



One of these four has the type aa – that's  $\frac{1}{4}$  , 25% or 0.25.

### **Sex Determination**



**Fem**ales carry two X chromosomes (XX) Males carry one X and one Y chromosome (XY) 50% chance of male and female.

1. Put these in order from smallest to biggest:

Allele, Cell, Chromosome, Gene, Nucleus

- 2. What are the two types of cell division?
- 3. When does mitosis take place?
- 4. Where does meiosis take place?
- 5. How does the number of chromosomes in a gamete differ from those of a body cell?
- 6. What do genes do?

- 1. What are the two types of reproduction?
- 2. How many parents are needed for asexual reproduction?
- 3. What are the offspring of asexual reproduction known as?
- 4. What is the term for when a sperm and an egg join?
- 5. How many genes do we have for any single characteristic?
- 6. What term is used to describe a person that has two alleles that are the same for a particular characteristic?

- 1. What two sex chromosomes do females carry?
- 2. What two chromosomes do males carry?
- 3. What is the probability of having a boy?
- 4. Complete the punnet square:

	D	d
d		
d		

5. What is the chance of having an offspring with the allele pair dd?

### **Inherited disorders**

### **Cystic fibrosis**

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

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



Fathe
-------

	С	С
С	CC	Cc
С	Cc	сс

### **Polydactyly**

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



### **Embryo screening**

Parents that have inherited disorders may opt for embryo screening

- 1. Multiple embryos are made in IVF
- 2. One cell is removed from each embryo
- 3. The cells are screened for faulty genes
- 4. Only embryos without the genes for disorders are transferred to the womb of the mother.
- + Babies born free of that inherited disorder
- no guarantee child will be free of other health issues
- Many embryos are destroyed, which are potential human lives

### **Variation**

May be due to differences in:

- Genes that have been inherited(genetic causes)
- Conditions which they have lived in (environmental causes)
- Combination of genes and the environment.

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

### **Evolution**

Evolution = a change in inherited characteristics of a population over time through natural selection – could lead to a new species.

A **species** is a group of organisms that can successfully breed.

Theory of evolution states that all species have evolved from a simple life forms more than 3 billion years ago.

### **Natural Selection**

Described by Darwin

- 1. **Variation** within a species different genes. (due to **mutation**)
- 2. One gene may give characteristics that are better **adapted** for survival in the environment.
- 3. Those with **advantageous genes** will survive and reproduce passing genes to **offspring**.
- 4. Over long periods of time, all members of that species have the characteristic, may even lead to a new **species**.

### **Extinction**

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

### Factors which could cause extinction:

- New disease
- Rapid change in environment (e.g. meteor/volcano eruption)
- New predators
- New competitors (often man)

# **Evidence for evolution Fossils**



Fossils are the remains of plants or animals from millions of years ago:

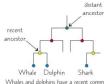
They are formed in different ways:

- Remains of an organism that has not fully decayed as one of the decay conditions was absent (e.g. too cold, not enough O<sub>2</sub>)
- Mineralised forms of the harder parts of an organisms (such as bones)
- Traces of organisms such as footprints or burrows.

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

### **Evolutionary trees**

Show how species have volved from and are related to others



Whales and dolphins have a recent common ancestor so are closely related. They're both more distantly related to sharks.

В6	B6 – Inheritance, Variation and Evolution					
1.	What is cystic fibrosis a disorder of?	1. What are the two causes of variation?	1. What does 'extinct' mean?			
2.	Is the allele for cystic fibrosis dominant or recessive?	2. What is a mutation?	2. What are fossils?			
3.	Why do cystic fibrosis sufferers struggle to get oxygen into the body?	3. Which scientist proposed the theory of evolution by natural selection?	3. Describe one way fossils can form			
4.	What is polydactyly?	4. What is the theory of evolution?	4. What do fossils show us?			
5.	Is the allele for polydactyly dominant or recessive?	<ul><li>5. What is a species?</li><li>6. Why do mutations sometimes lead to</li></ul>	5. Why is the fossil record incomplete?			
6.	Give one advantage of embryo screening		6. What factors can cause extinction?			
7.	Give one disadvantage of embryo screening					

### **Resistant Bacteria**

- Bacteria **evolve** rapidly as they reproduce at a fast rate. (reproduce approx. every 20 mins)
- Mutations of bacteria can produce new strains.
- Some strains are **resistant** to antibiotics (so are not killed).
- They **survive** and **reproduce** population of resistant strain rises.
- Resistant strain will spread because people are not **immune** and there is no effective treatment.
- MRSA is resistant to antibiotics.







The antibiotic kills some of the bacteria, the resistant bacterium survives and reproduces.



The antibiotic kills the rest of the non-resistant bacteria so the person may start to feel a little better. The resistant bacterium has survived the antibiotic and continues to multiply.

### How to reduce antibiotic resistant strains:

- Doctors should not prescribe antibiotics for viral infections
- Patients must complete courses of antibiotics
- Agricultural use of antibiotics should be restricted.

### **Genetic Engineering**

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

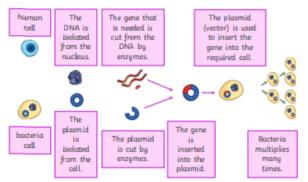
### Uses of genetic engineering:

- Plant crops to be **resistant** to diseases or produce bigger, better fruits.
- Bacteria cells to produce useful substances, such as human insulin to treat diabetes.

Genetically modified (GM) crops

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

### **Process of Genetic Engineering (HT only)**



### **Selective Breeding**

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

### **Steps of selective breeding:**

- 1. Choose a male and female with **desired** characteristics.
- 2. Breed together
- 3. Pick the offspring which have the desired characteristic and breed together.
- 4. Continue over many generations, selecting the best offspring each time, until all offspring show desired characteristics.

### Classification

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

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

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

Domain	bacteria	archaea	haea eu		aryota	
Kingdom	eubacteria	archaebacteria	protista	fungi	plantae	animalia

В6 -	B6 – Inheritance, Variation and Evolution					
1.	Why do bacteria evolve rapidly?	1.	What is genetic engineering?	1. 1. What is selective breeding?		
2.	What can cause new strains of bacteria?	2.	State two uses of genetic engineering.	Describe the four stages of selective breeding.		
3.	Name a bacteria which is resistant to antibiotics.	3.	What does 'GM' stand for?	Why might a characteristic be chosen?		
		4.	State two advantages of GM crops.			
4.	What are the three ways to reduce antibiotic resistance strains?	5.	State two disadvantages of GM crops.	4. Give 3 examples of characteristics humans may choose.		
		6.	Describe the stages of genetic engineering (HT only).	How did Linnaeus classify organisms?		
				2. What are Carl Woese's three domains?		
				3. What does 'binomial' mean?		

### **C10** – Using Resources

### **Earth's Resources**

We use Earth's resources to provide warmth, shelter, food and transport.

### E.g.:

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

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

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

will not run out, e.g. wood, wind etc.

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

### Life-Cycle Assessments (LCA)

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

### Stage 1 – extracting raw materials needed to make products.

- Energy cost and effect on habitats of extraction
- Are the raw materials finite/renewable?

### Stage 2 - Manufacturing and packaging product

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

### Stage 3 – Use of product during its lifetime

- E.g. a car has a significant impact as needs filled up with petrol which is a finite resource.

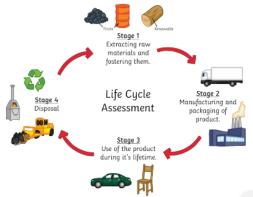
### Stage 4 - Disposal at end of product's life.

- 1) Landfill high environmental impact
- 2) Incineration burning of product
- 3) Recycling e.g. batteries contain metals that are harmful to environment recycling means no new compounds need to be taken out of the ground.

### **Example LCA for plastic vs paper bags:**

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

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



<b>C1</b>	0 – Using Resources	
1.	What are the 4 main uses of the Earth's materials?	1. What does LCA stand for?
		2. What does an LCA assess?
2.	What is a renewable resource?	3. What are the 4 stages that are assessed in an LCA?
3.	What is a finite resource?	4. Suggest one environmental impact of extraction of raw materials such as metals or oil.
4.	Give an example of a finite resource	5. Name two ways products are disposed of at the end of their 'life'
5.	Give an example of a renewable	
	resource	1. Why might an LCA be inaccurate?
6.	Give an example of a natural product that has been replaced by modern chemistry or farming.	What are the raw materials for a     a) paper bag     b) plastic bag
		3. Why might the disposal of a plastic bag have a greater environmental impact than the disposal of a paper one?

### **C10** – Using Resources

### Reducing the use of resources

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

### Reduce, reuse, recycle.

### E.g.

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







The battery can be broken up, the acid inside neutralised and the rest recycled



# **Evaluating methods to reduce, reuse,** recycle

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

### **Biological extraction techniques (HT only)**

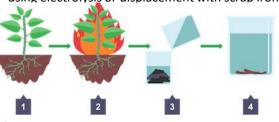
- Earth's supply of metal ores is limited.
- There are fewer sites that give lots of copper (high grade ore sites)
- New ways of extracting from low grade ore sites are:
- Phytomining
- Bioleaching

### Disadvantage = slow processes

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

### **Phytomining (HT only)**

- 1) Plants are grown on a low-grade ore
- 2) The plants absorb metal ions through their roots
- 3) The plants are harvested and burnt
- 4) Ash left behind contains metal compounds
- 5) Ash is dissolved in acid and copper is extracted using electrolysis or displacement with scrap iron.



### **Bioleaching (HT only)**

- Uses  ${\bf bacteria}$  to produce a solution called  ${\bf leachate}$
- contains copper ions.
- The copper can be extracted by using iron to **displace** the copper from the leachate.
- Does not need high temperatures
- Produces **toxic substances** which can damage the environment.
- Iron is cheaper than copper use of scrap iron is a cost-effective way to produce copper from leachate.
- Can also undergo **electrolysis** to produce copper.

<b>C1</b>	0 – Using Resources				
1.	Give three ways we can reduce our use of limited resources.	1.	State two advantages of recycling.	1.	What organisms are used in phytomining?
2.	Give an example of a product that can be reused	2.	State two disadvantages of recycling.	2.	What happens to the plants once they've grown?
3.	What has to be done to metals before they can be recast?			3.	What is used to displace the copper ions from solution?
4.	How is scrap iron used to reduce the amount of iron needing to be			4.	What organisms are used in bioleaching?
	extracted?	1.	What is a 'high grade ore' site?		
		2.	Name the two biological extraction techniques		
		3.	State a disadvantage of biological extraction techniques.		

### C10 – Using Resources

### Water

### **Potable Water**

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

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

Most potable water is produced by:

- 1) Choosing an appropriate source of fresh water
- 2) Passing the water through filter beds
- 3) Sterilising to kill bacteria

Sterilising agents used for potable water include:

- Chlorine
- Ozone
- Ultraviolet light



### **Desalination of Sea Water**

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

Can be done by:

### Distillation

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

### **Reverse Osmosis**

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

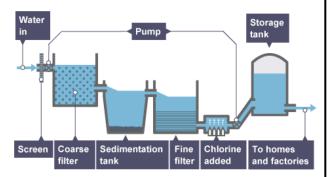
### **Waste Water Treatment**

- Waste water needs to be treated before being released back into environment **Pollutants** can be present in waste water including:

- Human waste contains harmful **bacteria** and nitrogen can harm aquatic ecosystems.
- Industrial waste can contain toxic substances
- Agricultural waste water can contain **fertilisers** or **pesticides** disrupt ecosystems.

### Sewage treatment involves:

- 1) Screening and grit removal to remove large particles
- 2) Sedimentation allows tiny particles to settle produces sewage sludge and effluent (liquid that remains on the top)
- 3) Sewage sludge is digested anaerobically by specific bacteria
- 4) Effluent is treated with aerobic bacteria to reduce volume of solid waste.



<b>C1</b>	0 – Using Resources					
1.	What is potable water?	1. How can potable water be made from sea water?				
2.	What is fresh water?	2. (	Give a disadvantage of this technic	jue.		
_		3. Describe the process of distillation.				
3.	Where does fresh water collect in the UK?					
		4. [	Describe the process of reverse os	mosis.		
4.	<ol> <li>After finding an appropriate source</li> </ol>		State three pollutants that may be present in waste water.			
	of water, what two stages are needed to make it potable?	Complete the table to explain the steps in treating waste water.				
			Step	Explanation		
5.	What are the 3 methods of		Screening			
	sterilising water?		Sedimentation			
5.	. Why is water treated with chlorine?		Anaerobic digestion			
J.	willy is water treated with chilorine:		Aerobic digestion			
				<u>.                                      </u>		

### C10 – Using Resources – Required Practical – Analysis and purification of water

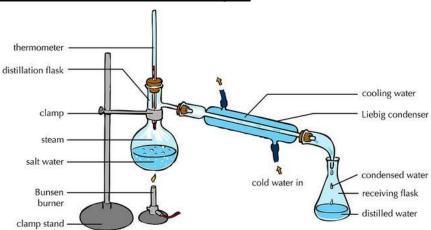
### **Analysing the pH of Water Samples**

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

### **Analysis the Mass of Dissolved Solids**

- 1) Measure out 50 cm<sup>3</sup> of water sample using measuring cylinder.
- 2) Take the mass of evaporating basin using top pan balance.
- 3) Heat the sample in the evaporating basin gently until all liquid evaporates.
- 4) Let the evaporating basin cool
- 5) Re-take the mass of the evaporating basin.
- 6) Calculate the mass of the solid left behind by doing: final mass initial mass.
- 7) Repeat with different water samples (e.g. rainwater, salt water, spring water)

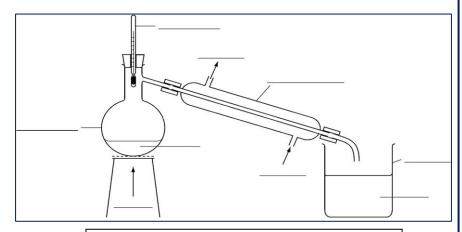
### **Distillation of water Sample**



- 1) Set up apparatus as shown in picture with the sample of water in the round bottom flask.
- 2) Heat water sample until it boils gently.
- 3) Water vapour enters the tube at the side (condenser)
- 4) There is cold water surrounding the tube
- 5) The water vapour cools and condenses and collects in the flask.
- 6) The water collected should be **pure**.

### C10 – Using Resources – Required Practical – Analysis and purification of water

- 1. Write a method of how to investigate the mass of solids in different samples of water.
- 1. Label the diagram below to show how to purify salt water.



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

- 2. What is the name of this technique?
- 3. What two changes of state happen during this?
- 4. Describe the water that is collected in the beaker

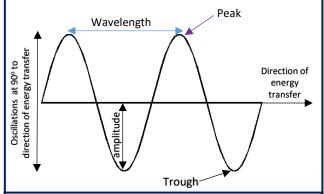
### P6 - Waves

### **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

Oscillations are parallel to the direction of energy transfer

Compression rarefaction Direction of energy transfer transfer

Sound waves have areas of compression and rarefaction.

Compression = particles pushed closer together Rarefaction = particles are further apart

Wavelength

### **Properties of Waves**

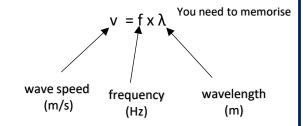
**Amplitude** – maximum displacement from undisturbed position.

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.



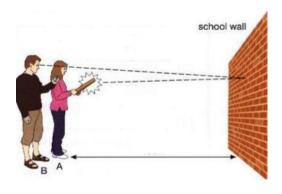
# Measuring speed of sound waves in air

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

### Speed = distance x time

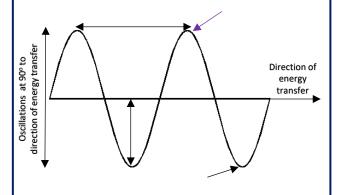
- Remember distance is double (in this case, 100m) as it travels to the wall and back.
- Take several measurements and calculate the mean to reduce error.

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.



### P6 - Waves

- 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

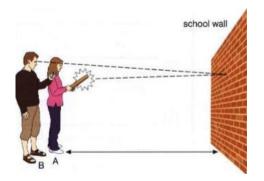
Wavelength

Frequency

2. What are the units for frequency?

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

 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?

### P6 – Waves – Required Practical – investigating wave in a solid and a ripple tank

### Measuring waves in a liquid Equipment

- Ripple tank
- Measuring ruler
- Stop watch

### **Method**

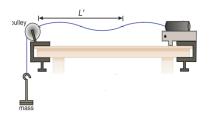
- 1. Set up the equipment as shown and turn on the motor to produce low frequency waves so that they are able to be counted.
- 2. Adjust the lamp until pattern is seen clearly on white screen underneath
- 3. Use a ruler to measure the length of a number of waves (e.g 10) and divide the length by the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

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

### Measuring waves in a solid

### **Equipment**

string, vibration generator, hanging mass set and pulley



### Method

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

### **Conclusion:**

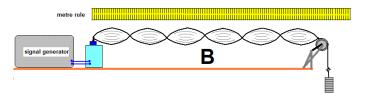
In both experiments, when you increase the frequency, the wavelength decreases – the speed remains the same in the same medium

### P6 – Waves – Required Practical – Ripple Tank

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

- 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?

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

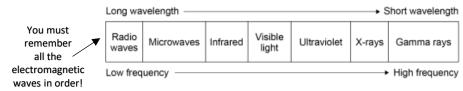


- 2. How many complete waves are shown in the image above?
- 3. If the length from the generator to the pulley was measured at 66 cm, what is the wavelength?
- 4. Why is it better to measure multiple waves and divide to find wavelength rather than measure one single wave?
- 5. What happens to wavelength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

### P6 - 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 <b>skin</b> cancer.
X-rays	Medical imaging and Very little energy airport security scanners. absorbed by body ti	
Gamma rays	Sterilising medical equipment or food and treatment for some cancers.	Passes through the body.  They can lead to gene mutation and cancer.

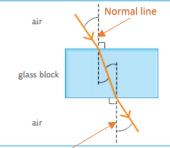
### Ray diagrams

- 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.

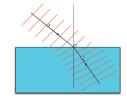
More dense → Less dense (e.g. glass to air)



Normal line

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

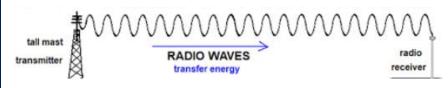
The ray bends because different parts of the wavefront cross the boundary at slightly different times –



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

### Radio waves (HT only)

- Radio waves can be produced by **oscillations** in **electrical circuits**.
- Those radio waves can travel for long distances to receivers.
  - When absorbed by the receiver, the radio wave creates an alternating current with same frequency as the wave itself.
  - This is how TV and radio are broadcast.



6 – Waves	
State two properties of electromagnetic waves.	<ol> <li>What happens when a ray goes from a less dense</li> <li>→ more dense medium?</li> </ol>
2. Write the EM spectrum in order of <b>increasing</b> wavelength	
Write the EM spectrum in order of <b>increasing</b> frequency	<ol> <li>What happens when a ray moves from a more dense → less dense medium?</li> </ol>
write the Livi spectrum in order of increasing frequency	
	3. What is the line at 90° to a surface called?
l. How fast do electromagnetic waves travel?	
5. State the uses of: a) radio waves	4. 4. What happens if a ray hits a medium at 90°?
o) microwaves	
c) infrared	<ol> <li>What type of current do radio waves create when absorbed?</li> </ol>
d) visible light	2 What is the frequency of the current produced
e) ultraviolet	by a radio wave of frequency 250Hz?
) x-rays	
g) gamma rays	
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:  6) radio waves  6) microwaves  6) infrared  8) visible light  9) ultraviolet  1) x-rays	<ol> <li>→ more dense medium?</li> <li>What happens when a ray moves from a more dense → less dense medium?</li> <li>What is the line at 90° to a surface called?</li> <li>4. What happens if a ray hits a medium at 90°?</li> <li>What type of current do radio waves create when absorbed?</li> <li>What is the frequency of the current produced</li> </ol>

### P6 – Waves – Required Practical – Infrared radiation

### 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.

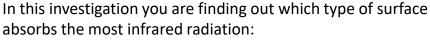
Independent variable: surface

**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







### 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

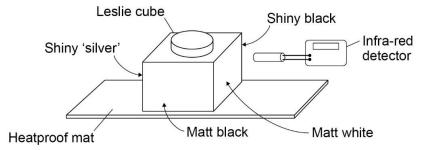
### **Conclusion**

Black matt surfaces absorb and emit the most infrared radiation.

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

### P6 – 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:

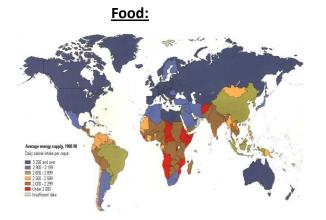
Dependent variable:

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?

### The significance of food, water and energy to economic and social well-being.

Everybody needs food, water and energy Resources, such as food, water and energy are needed for basic human development. People need food and water to survive and stay healthy. Energy is needed for a basic standard of living. Access to food, water and energy affects the social well-being of people and countries.



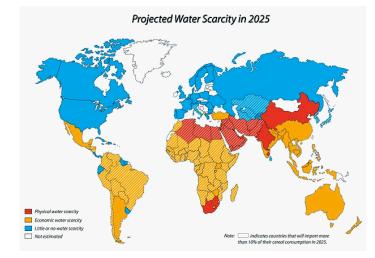
### Map showing daily calorie intake world wide

- 1.As can be seen from the map, the daily calorie intake is **uneven** across the world. With many **LIC countries** having a very **low calorie intake**. Especially the Sub Saharan African countries.
- 2. Without access to enough safe, nutritious food people can become **malnourished** which means to not have the right balance of nutrients in their diet, this can affect a child's development.
- **3.Malnourishment** increases the likelihood of getting **diseases** one third of all children under the age of 5 that die globally due to diseases linked to malnourishment.
- 4.People who may not get enough to eat will **not preform** as well in **school** or at **work**. Meaning the population will **lack** the **skills** needed to help a country's economic development.
- 5.Overall a lack of food will have a negative impact on social well being of people. It may lead to social unrest and civil war, it leads to health problems, and forces people to migrate from their homes.
  6.It can also have a negative impact on the economic well-being of the
- problems, and forces people to migrate from their homes.

  6.It can also have a negative impact on the economic well-being of the people, as people can't work if they have no food, children can not attend school as they must either try to farm the land or find food. This stops the country from developing.

### <u>Water</u>

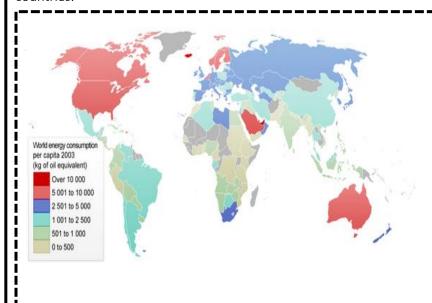
A map showing projected water scarcity



- 1.As can be seen from the map, water availability is **uneven** across the globe. Many north African countries may not have physical access to water by 2025.
- 2. Water is needed for **drinking**, **cleaning and cooking**.
- **3.Without sanitation**, water sources can also become **polluted** e.g. by raw sewage
- 4. Water borne diseases like **cholera and typhoid** kill millions of people each year.
- 5.A lack of water impacts the **social well being** in countries as **diseases and death** are common. Civil war can also take hold. It can lead to a lack of food and starvation.
- 6.It can also have a **negative** impact on the **economic well being**, as people spend all day **searching for water** meaning they can not work or attend school. This stops the country from developing.

### The significance of food, water and energy to economic and social well-being.

<u>Everybody needs food, water and energy</u> Resources, such as food, water and energy are needed for **basic human development**. People need food and water to **survive** and stay healthy. **Energy** is needed for a **basic standard of living**. Access to **food, water and energy** affects the **social well-being** of people and countries.



### **Energy**

- 1. The map shows that energy consumption is **uneven** globally, with the **highest rates** of consumption generally taking place in the **HICs.**
- 2. Energy is important for **industry**, **transport and homes**.
- **3.Social well being** will be **negatively impacted without** energy as people will not be able to heat homes, or turn lights on during the night. Social unrest/civil war can take place over the availability of resources
- 4. The **economic well being** in the country can be **negatively impacted**, as industries can not operate, meaning there are few jobs, which could help the country develop. Furthermore, people can not travel to jobs in other places, as the lack of energy makes travelling difficult.

### An overview of global inequalities in the supply and consumption of resources.

- 1. The global distribution of resources is uneven
- 2. Some countries do not have energy reserves, others have **poor climates** meaning food production is difficult.
- 3. For some countries the only way to access these resources is to **import** them, which is **expensive**.
- 4.Consumption of resources therefore depends on wealth and their availability.
- 5.HIC's can afford to buy more resources, so consumption is greater to sustain their higher standards of living and social well being.
- 6.In NEE's like China consumption is growing quickly. Industry is developing very fast, which requires lots of energy) and population and wealth is also increasing rapidly
- 7. However, in **LICs** they can not afford to exploit their resources or import from other countries, so consumption is low.

### Key word:

•Consumption: the action of using up a resource

### An overview of resources in relation to the UK: Food

### Seasonal foods are now available all year round

- 1. The type of food that are in demand in the UK has changed. Before the **1960's** most fruit and veg sold in the UK was grown **locally**. **Seasonal foods** could **not be purchased all year round**, such as strawberries or Brussel sprouts. Seasonal foods are not available all year
- round, you can only buy it during the months it growth. This has now changed.

  2. There has been a growing demand for **seasonal produce** to be supplied **all year round**. So now we import things like strawberries from
- Mexico and Apples from South Africa. **3.Demand** has grown for high value foods like **exotic fruits**, vegetables and spices. Theses high value foods have become more popular in
- **3.Demand** has grown for high value foods like **exotic fruits**, vegetables and spices. Theses high value foods have become more popular in the UK as people's incomes have increased. These are often grown in **LICs** and **imported** to the UK.
- 4. There has been a **growing demand for organic food**. These are grown without the use of artificial fertilisers and the production of organic produce **does not have a negative impact** on the environment. Some organic food is produced in the UK, but lots is imported too.

### The problems associated with our food – the carbon footprint!

- 1. The **growing, processing and packaging** of our food produces **CO2** and other greenhouse gases. In 2013 9% of the UK's greenhouse emission came from growing food.
- 2.Transporting food from where it is grown to where it will be sold produces CO2. This movement is called 'food miles.'
- 3. The amount of greenhouse gas produced during growing, packaging and transporting is called it's carbon foot print. A larger carbon
- footprint means more greenhouse gases and more global warming.
- **4.Imported foods** have to be transported along way, so have **high food miles** and a **large carbon footprint**.
- 5.Environmentalists are encouraging people to **buy locally** grown food. **Farmers markets**, farm shops and locally produced vegetable boxes are becoming more popular reducing the carbon footprint of the food we eat.

## Farming is becoming more industrialised

- 1. Since the 1960's there has been a growth in large scale industrial farming where processes from the production of seeds and fertilisers, to the processing and packaging of food is controlled by large firms, known as agribusiness.
- 2. This has caused **farm sizes** to **increase**. Small farms have been taken over and **field sizes made bigger**, so more can be produced.
- 3. The use of **chemicals** has increased large amounts of **artificial fertilisers** and **pesticides** are added to crops to help them grow. and special feed to animals to encourage growth
- 4. The number of workers has fallen, as modern technology is capable of doing the work.
- 5. Industrial farming has had **negative environmental impacts**, including **hedgerow destruction** (loss of habitats), increased **soil erosion**, and **fertilisers** running into streams and ponds, causing algae to grow and the fish life to die.

3

### An overview of resources in relation to the UK: Water

### **Demand for water across the UK**

- 1.In the UK the places with the **best supply** of water are **not** the areas with the **greatest demand**.
- 2. The **highest demand** for water in the UK is in the **South East**, where the population is growing and there is little rainfall. The **highest** amount of **rainfall** is in the **north west**, where the population is actually declining.
- 3. The **south east** is an area of **water deficit** (there is a greater demand than can be supplied).
- 4. The **north and west** are areas of **water surplus** (there is a greater supply than demand).
- 5. The amount of water used in the UK has increased by 70% since 1975. Mainly due to new appliances like washing machines and dishwashers 6. The UK's population has also increased by 10 million, meaning more users.
- 7. The south east continues to grow, even though water supply is low. This is due to the north south divide.
- 8.Demand is increasing because of Increased population, more crops required, Technology has changed (washing machines etc), power showers, central heating

### The problems of polluted water in the UK

- **1.Polluted** or **low quality water** reduces the amount available for use
- 2. The quality of water in the UK has been **improving**. However there are **still problems**, such as **nitrates** from fertilisers being **washed into rivers** and soaked into groundwater. Also, **pollutants from vehicles** being washed into water sources through run-off when it rains.
- **3.80%** of water in southern parts of the UK comes from **groundwater**. However, **pollution** is affecting about **50%** of this. Many groundwater supplies have been closed, or expensive treatment of them has taken place.
- 4.Strategies used to improve water supply include, putting **stricter regulations** on how much **fertilisers** and pesticides can be used. Also, **higher taxes** have been introduced on the **most polluting cars**. This encourages people to but newer, greener models.

### Water transfer can help to maintain supplies

One way to **deal water deficit** issues, is to **transfer water** from areas of surplus to deficit. Water Transfer schemes meet the demand for water by **transferring water from areas of water surplus** (low population, high rainfall) to **areas of water of deficit** ( high population, low rainfall and high industry). Its first creates a reservoir in an area of water surplus and holds it. This water is then transferred to areas of water deficit. However, water transfer can cause problems: Dams can be **expensive** to build and the reservoirs lead to huge areas being flooded, damaging farm land, habitats and causing people to be relocated. **Political issues** can exist e.g. people may not want their water transferred to another area.

Conserving water is also being used to lower the demand. The UK is trying to conserve water by: fixing leaking pipes, teaching children in schools about not wasting water i.e turning off taps while brushing your teeth, Using technology, duel flushing systems on toilets or collecting and using rain and grey water, Banning the use of hose pipes during times of water stress

### An overview of resources in relation to the UK: Energy

- The UK's energy mix is changing renewables!
- 1.Traditionally the UK relied on fossil fuels (coal, oil and gas) to supply it's energy. In 1970, 91% of our energy came from oil or coal. 2. The discovery of large gas reserves under the North Sea meant that by 1980, 22% of the UK's energy was supplied by gas.
- 3. The use of nuclear energy to produce electricity also increased during the 1990's.
- 4.Recently there has been a movement towards using renewable energy supplies, rather than fossil fuels. All coal fired power stations in the UK are due to close by 2025. In 2014, 19% of all electricity produced in the UK was generated by renewable energy.
- 5. Wind and bioenergy (energy from the burning of biological source e.g. food waste or oil rape seed) are the biggest sources of renewable energy, but the use of solar and hydroelectric power have also increased.

### The UK's supplies of coal, oil and gas are running out

- 1.North Sea oil and gas reserves are rapidly running out.
- 2. The UK still has coal reserves, but the use of coal has declined rapidly since the 1950's. This decline has happened as we have tried to reduce CO2 emissions and the cost of mining these reserves is very expensive. The last deep coal mine closed in the UK in December 2015..
- 3. The use of shale gas from underground in the UK is being considered. This is extracted using a process known as fracking: fluid is pumped into shale rock at high pressure, causing it to crack. This forces gas trapped in the rock to flow back out of a well, where it is collected. Much of the fracking in the UK would take place in the North West of the country, this has the potential to create thousands of jobs in an area of economic decline. Aberdeen is one of the most wealthiest places in the UK and this is linked directly to job creation and taxes from offshore oil and gas.

### Exploiting energy sources causes economic and environmental issues.

Energy resources are very important for the UK, exploiting these creates jobs and wealth for areas of the UK. However this extraction can cause problems:

### **Economic issues:**

1. The cost of extracting fossil fuels can be expensive. As the reserves

drops (as it did between 2010-2013), it may cost more to produce

- run out extraction becomes more difficult and costs increase further. 2. North Sea oil is especially expensive to extract. If the price of oil
- than to sell. This could lead to job loses. 3. The cost of producing energy from renewables and nuclear is very high. This cost is often passed on to the consumer,
- 4. Money is needed to continue to research into alternative energy sources such as fracking, or building new nuclear power plants
- UK still has to pay high prices to import energy from other countries. 6. Nuclear waste is expensive to dispose of as it is highly dangerous.

5. Renewable energy can be unreliable and inefficient. This means the

This pushes up the cost of producing electricity.

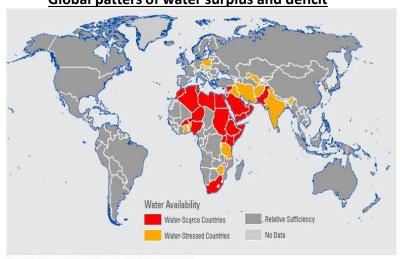
### **Environmental Issues**

- 1. The burring of fossil fuels produces CO2 and greenhouse gases, this is causing the greenhouse effect.
- 2.Fracking may pollute groundwater and cause mini-earthquakes
- this has led to some people campaigning to ban it. 3. Large areas of land are needed to produce energy, this can destroy habitats and create a scar on the landscape (lowering
- house prices). 4. Accidents such as oil spills or nuclear disasters, can leak toxic chemicals into water sources, soils and the atmosphere, killing animals and posing a significant risk to human health.
- 5. Natural ecosystems can be damaged by renewable energies, like large wind farms, which create noise and scare wildlife. They can also ruin the landscape of coastal and countryside areas, putting tourists off visiting.

WATER: Areas of surplus (security) and deficit (insecurity): • global patterns of water surplus and deficit • reasons for increasing water consumption: economic development, rising population • factors affecting water availability: climate, geology, pollution of supply, over-abstraction, limited infrastructure, poverty.

### Global patters of water surplus and deficit

Water security – area with high rainfall and or very low population density e.g.
Canada and Brazil



Water insecurity – areas with low rainfall and or very high population density e.g. Libya, Mexico

Source: Population Action International (PAI). Mapping Population and Climate Change. Washington, DC: PAI.

### Global demand for water: Water insecurity is not having enough clean water

- Water security means having a reliable and sustainable source of enough good quality water to meet everyone's needs for industry, agriculture and personal health.
- Water security depends on the amount of water available (e.g. from rainfall, rivers, groundwater etc.) and the number of people that need to use that water. It also depends on being able to access that water which can be hard if you are poor.
- Having more water than is needed is known as water surplus. When there is not enough water to meet everyone's needs it's called a water deficit.
- A water deficit can lead to water insecurity when there is not enough clean water to keep everyone healthy, or enable them to make a living (e.g. to water their crops, provide energy etc.)
- When **demand** for water is **greater than** the **supply** during a certain period, or when water is not of high enough quality to use, places are said to experience **water stress**.

WATER: Areas of surplus (security) and deficit (insecurity): • global patterns of water surplus and deficit • reasons for increasing water consumption: economic development, rising population • factors affecting water availability: climate, geology, pollution of supply, over-abstraction, limited infrastructure, poverty.

### Water demand is rising as there are more people with more money:

### Rising population

- The world population is increasing. Each person needs water for drinking, washing, preparing food etc.
- More people also means that more food needs to be grown – irrigation for agriculture uses 70% of the world's freshwater resources.

sewage contaminates the supply.

### Economic development

- Countries are becoming more industrialised as they develop. This means they
  are producing more goods. Manufacturing uses a lot of water.
- Energy production 15% of all water withdrawn globally is used to produce energy, e.g. cooling in thermal power plants.
- Rising living standards as countries develop, people's wealth increases and they can afford a higher standard of living. This increases water use as more people use flushing toilets, showers, dishwashers etc.

### Factors affecting water insecurity:

# Physical factors:

- **Climate** most places rely on rainfall, which feeds lakes and rivers, for their water supply. If **climates** are **hot**, lots of water is lost from lakes and rivers due to **evaporation**.
- **Climate change** is altering the total amount of rainfall in places, as well as how often it rains and how heavy it is. Many dry **areas** are **getting drier**, increasing the risk of droughts.
- Geology when rain falls on impermeable rock e.g. clay, it can't soak in, so flows off into rivers and lakes. These are easy to get water from. However, when rain falls on permeable rock e.g. sandstone, it infiltrates through them and forms underground water stores aquifers), which are harder to get to. However groundwater can make water available in very dry places e.g. the Sahara desert.

# **Economic and social factors**

- Over extraction can take place, when more water is being used than is being replaced. This can be caused by population growth (which is common along the area of the Sahel on the edge of the Sahara desert). Another cause can be improvements in sanitation and personal hygiene e.g. people take more showers. Finally, tourism and recreation can increase water stress, for example watering golf courses in dry areas in Spain one golf course of the summer season uses as much water as a town with a population size of 20,000 in the UK.
- The pollution of water from rapid industrial development, means less water is available for drinking.
- Human and animal waste are a hazard where people share water sources with animals and do have access to sanitation.
- Limited infrastructure rapid urbanisation means that water pipes and sewers can not be built quickly enough. This means
- **Poverty** water providers charge a fee for supplying water. People who are **too poor** to **pay** for the **mains supply** will look for other sources, which may not have been treated to make them safe.

# <u>Impacts of water insecurity – waterborne disease and water pollution, food production, industrial output, potential for conflict where demand exceeds supply.</u>

- **Diseases** where water is scarce, supplies of drinking water can become contaminated with sewage or industrial chemicals e.g. fertilisers. This can cause **cholera and typhoid**, leading to death.
- Reduced food production —A shortage of water means less irrigation can happen, therefore less crops produced which can lead to starvation.
- Industrial output can decline Industries use huge amounts of water, when water is scarce it results in less being produced, causing profits and wages to fall, which is bad for the economy.
- It can cause **conflict** When countries of water insecurity share the same water supplies e.g. a river or aquifer, water shortages can trigger conflicts. For example one country may decide to build a dam to trap more water, however this will mean the country further down stream will have less.

# Overview of strategies to increase water supply: • diverting supplies and increasing storage, dams and reservoirs, water transfers and desalination

### Water supplies can be increased

- Water is often not where it is needed. Water diversion schemes transfer water from areas of surplus to areas of deficit.
- Seasonal variations in rainfall can cause a water deficit at certain points during the year. One way to solve this is to store water in tanks, or in reservoirs. This gives a reliable source of water all year round.

### Water transfer

- Water transfers are **large scale engineering** projects that move water from a river that has surplus water to a river that has a water shortage.
- The water is usually transferred in canals and pipes.
- Water transfer can **reduce** the **water deficit issue**, meaning farmers do not suffer crop failure and life can carry on as normal e.g. no hosepipe bans etc. In LICs this stops people being forced to drink dirty water.
- However, it can cause social and economic problems. For example, the cost of
  pipes can be expensive and this is passed on to the consumer, this means poorer
  people may struggle to buy the water. Areas where the water is being transferred
  from could end up in drought, during particularly dry periods. This causes conflict
  as local farmers may be angry that they can't grow crops as their water is being
  transferred.

# Overview of strategies to increase water supply: • diverting supplies and increasing storage, dams and reservoirs, water transfers and desalination

### **Dams and Reservoirs**

- Building a dam across a river traps a large amount water behind the dam, creating a reservoir.
- During times of water surplus the reservoir will fill. This is stored and can then be released in times of water deficit. Meaning there is a consistent flow of water all year round. This provides clean water for the population and allows crops to be grown.
- Water transfer from reservoirs is usually along **pipelines** and **pumping stations**. These are **expensive** to construct and maintain and push the price of water up for the local population.
- Most of Birmingham's water comes from the Elan valley in mid-Wales, where a series of dams and reservoirs provide a continuous supply for the city.
- Reservoirs cause **conflict** due to the huge area of **land** which is **flooded**. This destroys agricultural land, putting farmers out of business. It can drown settlements in the local area, meaning locals are forced to move, breaking up the community.

### Desalination allows sea water to become a water source

- 1. Desalination is the **removal of salt from seawater** so that it can be used. There are **two ways** to do this. The first is to **heat** the seawater so it evaporates, the water is then condensed, this is collected and drinkable water has been achieved. The other method is to use a **special membrane** to remove the salt. This provides clean drinking water in areas of water deficit such as places like Dubai.
- 2. This is very **expensive** as the seawater must be **heated**, or enough **energy** is needed to push the water through the membrane. This means huge amounts of **fossil fuels** would be needed, **increasing CO2 levels**. However, in Saudi Arabia, they are currently building the world's first large scale solar powered desalination plant.
- 3. In the **UK**, **desalination** is mainly used during **droughts**. For example, London has a desalination plant on the banks of the river Thames. It can supply enough water for 400,000 homes in times of water shortage.
- 4. Wealthy desert countries such as Dubai, mainly use desalination as their main source of clean, drinking water. In **Dubai 98.8% of the water comes from desalination** with one supply plant creating 140 million gallons of desalinated water each day. This means that huge amounts of energy are being used to produce this.
- 5. The plants being used across the Arab countries are quiet energy efficient, with the latest plant in Dubai being 82% efficient. However, it still has one of the **largest carbon footprints** in the world because of this. Also the amount of **salt in the sea is rising** rapidly as the water is taken out and the salt dumped back into the sea, this is threatening sea life in the area.
- 6. Dubai only has **4 days worth of back up supply of water at any time**, so if any problems were to arise at the desalination plants, the area would quickly run out of water.

# An example of a large scale water transfer scheme to show how its development has both advantages and disadvantages.

### China's south to north water diversion project – Large scale project

To cope with water insecurity, the Chinese government has planned a \$62 billion project that will transfer 44.8 billion cubic litres of water every year from the south to the north of the country. Two of the three planned routes have been completed – the Central and Eastern Routes.

### Advantages of the project

- 1. It provides water for people in the north, in major cities such as Beijing and Tianjin. In total over **50 million people will benefit** from the project, as the will have clean, uncontaminated water.
- 2. Industry can continue to develop in these large cities and across northern China, bringing taxes and wealth to the country allowing it to develop.
- 3. It provides a reliable source of water to **irrigate farmland**, meaning crops can be grown and food shortages do not happen.

## Disadvantages if the project

- 1. Huge areas of **land** had to be **flooded** to create the **reservoirs**, one of the largest was part of the 3 gorges dam project. This caused **habitats to be ruined** and animals such as the **yellowfin dolphin** to become extinct.
- 2. The creation of the **Danjiangkou Reservoir flooded farmland**, causing farmers to lose jobs, as well as forcing 345000 people to move, destroying the communities within the area.
- 3. The water supplied to Beijing is very expensive for consumers as the project cost so much. The project only supplies urban areas and those that can afford it this means that the urban poor and those in rural areas have not got access to this clean water source so still have the same problems as the past.
- 4. Water stress in the south will increase as so much water is being diverted. During severe droughts, there won't be enough drinking water or irrigation water for over 30 million people. This could cause crop failure and force people to drink dirty water causing disease.



# Moving towards a sustainable resource future: an example of a local scheme in an LIC or NEE to increase sustainable supplies of water.

#### **Kenya: Sand Dams**

Kenya is a LIC, with a hot, dry climate. Most rain falls in just a few heavy downpours each year. Most rivers therefore only flow in the rainy season, as in the dry season the water evaporates. It is difficult for rural communities to storm water for future use. People in Kenya's Malaika near the town of Mitito Andei have been helped to build sand dams (African Sand Dam Foundation), which give them access to water all year round.

#### This is how:

- 1. A low dam (about 1 m high) is built across the river using locally found materials like rocks and cement
- 2. During the rainy season, when water is flowing in the river, coarse material like sand is trapped behind the dam.
- 3. Water gets trapped between the sand particles (about a third of what is trapped behind the dam is actually water)
- 4. Over many rainy seasons the sand builds up
- 5. The sand prevents the water from being evaporated by the hot sun during the dry season and filters the water
- 6. When the river stops flowing, water can be extracted from the sand by digging a well, piping the water through the dam to a tap or simply digging holes and scooping the water out
- 7. Eventually the water table also rises, which means that crops start to flourish in the area.
- 8. The dams are cheap to build, use local materials and don't require much maintenance
- 9. The height of the dam can be raised every year to trap more sand and water

#### Problems of the scheme:

- 1. Require the charity to supply the concrete and knowledge on how to build the dam
- 2. Require the charity to educate local people on drought resistant crops

Both of these depend on overseas aid donations from the public.

## Moving towards a sustainable resource future: water conservation, groundwater management, recycling, 'grey' water

### Water conservation:

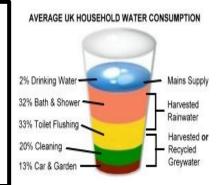
- Fixing leaking reservoirs, pipes and dripping taps helps to stop water being wasted. In the UK 3.3 billion litres of water are lost every single day.
- 2. Fitting **dual flush toilets** reduces use, as they use less water. They save up to **3.5 litres** for every flush. Some urinals are also waterless now, such as in McDonalds, saving millions of litres of water per day.
- More efficient dishwashers and washing machines are now used, and people are encouraged to only run these on full load.
- 4. Fitting homes and businesses with water meters, means people are more aware of the water which they are wasting/using. This means they are more likely to reduce their use.
- **5. Educating people** to take sorter showers and turn off taps when not in use (e.g. brushing teeth).
- 6. Building adaptations such as green roofs, these filter rain water and allow it into the main supply. Where it can be used for cleaning.
- 7. Water butts can be used to catch rainwater which would from the downpipe of gutters. This can be used to water the garden, flush toilets etc.

### Recycling and 'Grey' Water:

- Recycling water means to take what has already been used and using
  it again, rather than returning it to a river or the sea. This makes
  water use more sustainable because less water needs to be taken
  from rivers or groundwater.
- 2. Water from homes and industries can be pumped to water treatment plants, where it is cleaned and made safe to reuse.
- 3. The recycled water is used for **irrigation**, **industry**, **power plants and toilet flushing**. However, it can be treated enough to make it redrinkable and the process is expensive and polluting.
- **4. 'Grey' water** is a type of recycled water. It is usually **used immediately** rather than being treated first. It is normally waste water from peoples homes, for example, from washing machines, showers or sinks. It does not include toilet water as this is contaminated.
- Because it is quite clean it can be used for irrigating gardens, farmland, washing cars and flushing toilets. This can safe thousands of litres of water.
- 6. This also **conserves the energy** needed to treat the water, which can be expensive.
- 7. This is also good as it **reduces the use of clean water**, which can be saved for drinking.
- 8. However, a negative is grey water can not be used as drinking water as it is far too dirty.

### **Ground water management:**

- 1. Monitoring groundwater extraction means that you can ensure that extraction of the water is not faster than is naturally being replaced.
- **2. Farmers** have been told to use **less artificial fertilisers and pesticides**, companies that leak toxic waste are fined. This stops the water supply becoming contaminated.
- 3. International agreements have been created where groundwater is shared between countries. This ensures that one country does not take an unsustainable amount of water leaving another country short. However, agreeing how much water each country can take from the aquifer can be very difficult.



#### **Balboa the Conquistador**

#### 1509

Balboa rescues Spanish expedition in trouble on mainland America. Founds first permanent settlement on mainland

#### 1510

America, Santa Maria de la Antigua del Darien. 1511 Confirmed, by King Ferdinand, as captain general

and governor of Darien.

Expedition across Isthmus of Panama - finds the Pacific and claims it and surrounding lands for Spain.

#### 1514

Plans an expedition to sail south on the Pacific. Replaced as governor by Pedrarias. Arrested for treason, tried and beheaded.

Pedrarias and Espinosa: the significance of **Panama** 

Pedrarias and Espinosa explored the south coast separately, but both ended up on the same point on the Pacific coast - this became Panama. Panama significant because: -Situated on Pacific coast - closest in distance to

- Nombre de Dios on the Caribbean Sea. -a route between Panama and Nombre de Dios was
- the quickest way of moving goods, people and messages between the Pacific and the Caribbean
- -land surrounding Panama was fertile and had sea
- -Panama was a port, well situated for Spanish treasure ships to off-load.

#### Velázquez conquers Cuba

1515 - City of Havana founded.

**1511** – Hatuey a native chief living in Haiti, flees to Cuba with 400 natives to escape Spanish cruelty.

Velázquez and 300

conquistadors pursue

them.

1513 - Massacre at

Canao - thousands of

natives killed.

strong native resistance, Hatuey is captured and burned alive.

1512 - After

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

## 2. The Conquistadors 1513-1528



## Cortes' expedition to Mexico 1519 March – Lands on

1519 February -Cortes sails from Cuba, despite

> Velázquez attempts to stop him.

July - Re-establishes

a Spanish settlement

at Vera Cruz. Cortes

also sinks his ships.

Yucatan Peninsula and claims land for Spain.

met by cheering

and allies with

them.

August - Cortes is natives at Cempoala

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

April - Fights Tabascan

natives and takes control

of the city of

Pontonchon. Makes

peace with Tabascans.

Given Malinche.

#### Aztec religion



Quetzalcoatl

What beliefs did the Aztecs have towards the Spanish?

Some Aztecs wanted to treat Cortes and the Conquistadors as returning gods; others as dangerous invaders. Aztecs worshipped many gods. They were usually connected to nature. Human sacrifices were common among the Aztecs. The god Quetzalcoatl was the god of life. Aztecs believed he had

vanished into the sea and would one day return. Many Aztecs believed that Cortes and the conquistadors were

returning gods.

Cortes and the conquistadors appeared from the same sea, and in the same spot, from which Aztecs believed Quetzalcoatl disappeared.

#### Magellan

Magellan and his ships managed to circumnavigate the world between 1519 and 1522 and claim the Phillipines for Spain.

This was important because:

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

#### Cortes removed as governor

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

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

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

Tabascans. Given Mayan woman, Malinche.

Date Event

Feb Cortes sails from Cuba

1519

August Met by cheering natives at Cempoala and allies with them. Sept Fights Tlaxcalans – enemies of the Aztecs – makes peace and allies with them.

July Re-establishes Spanish settlement at Vera Cruz. Sinks his ships.

April Fights Tabascan natives and takes control of Pontonchon. Makes peace with

March Lands on Yucatan peninsula and claims land for Spain

October Cortes and his forces massacre 3000 natives in the town of Cholula. 8th Nov Cortes and his forces enter Tenochtitlan - welcomed by Montezuma. 14th Nov Montezuma taken prisoner by Cortes – becomes a puppet emperor.

1520 April Spanish troops arrive at Vera Cruz under instructions from Velázquez, intending to arrest Cortes.

May Cortes leaves Tenochtitlan to oppose Velázquez's troops. Cortes deputy, Alvarado, massacres thousands of Aztec nobles. 24-29 June Spaniards trapped in Tenochtitlan as Aztecs rise against them.

29th June Montezuma killed. 30th June The Night of Tears: Spaniards are massacred as they flee from Tenochtitlan and spend nearly a year re-grouping and planning.

1521 22nd May Battle for Tenochtitlan begins.

1st Aug Spaniards fight their way into the centre of Tenochtitlan.

13th Aug Tenochtitlan falls to the Spaniards and the Aztecs surrender.

In the years to 1528, Cortes strengthened control in many ways: -He continued killing Aztecs and natives that supported them.

- -He took tribute from remaining Aztec chiefs.
- -Tenochtitlan was rebuilt on the ruins of the Aztec city.
- -He encourages exploration and establishment of new communities.
- -Agriculture was developed.
- -Industry was developed.
- -He helped with the spread of Christianity.

Aztec **Temples** priests pulled killed down

Cortes strengthens Spanish control

The Spanish impose the encomienda system of landholding

the Aztec **Empire** 

Aztec leaders The fall of killed and Aztecs ruled by Spaniards

Millions of Aztecs die from smallpox

Christian priests and friars convert Aztecs

to Christianity

Forced labour kills millions of Aztecs





Keywords		What we are learning in this unit			A.	A. 6 Articles of Faith		
Tawhid	The belief in Islam that	A. 6 Articles of Faith B. 5 Roots of Usul Ad-Din			Article of fai	th	What is it?	
Omnipotent	there is only one God who created everything  God is all powerful and	C. Sunnah and Hadith D. Risalah E. Torah, Psalms and Gospels			1: Belief in o	one God	Allah is the creator and sustainer of life. There is no God but Allah	
Ommpotent	"has power over everything"	F. Nature of G. Qu'ran H. Torah, Ps			2: Belief in A	Angels	Angels do the work of Allah and do not have free will like humans. They obey Allah	
Immanent	God is active in the world and involved in its' creation.	I. Angels J. Al Qadir K. Day of Ju	udgement, Paradise and l	Hell	3: Belief in (	God's revealed books	The Torah, the Psalms, the Gospels, the Scrolls of Abraham and the Qur'an.	
Transcendent	God is outside of time and space. God cannot age or	B. 5 Roots of Usul Ad-Din  The 5 roots of Usul ad-Din are central to the Shi'a Muslim faith.			4: Belief in t	he messengers of God	Prophets and messengers are chosen by Allah to deliver His message to humankind	
Beneficient	die or be located in one place.  Allah is compassionate,	Root What is it? Quote		5: Belief in t	he Day of Judgement	There will be a day when all people stand in front of Allah and are sent to Heaven or Hell		
Denencient	caring and good	1: Tawhid	The belief in the oneness of Allah	"He is God the One, God the eternal" Surah	6: Belief in լ	ore-destination	Allah knows everything. Everything is ordered by Allah –	
Sunnah	The traditions and practices of the Prophet			112			nothing is random or by chance	
	Muhammad	2:	Belief in	"We sent messengers to every community"	C.	Sunnah and Hadith		
Qur'an	The Islamic sacred book	Nubuwwah	prophethood: the chain of messengers		Sunnah			
Hadith	A collection of traditions and sayings of the Prophet Muhammad		from Adam to Muhammad	Surah 16  "I advise you to		<ul> <li>The practices, customs and traditions of Prophet Muhammad</li> <li>They give an example for Muslims to follow</li> </ul>		
6 Articles of Faith	6 basic beliefs that shape the Islamic way of life	3: Adl	3: Adl Allah is just (fair) and will bring Divine Justice			The Sunnah an	d Hadith are sources of uthority alongside the Qur'an	
5 Roots of Usul	5 rules which explain how			friend and foe" Imam Ali	Hadith	Reading the Ha	dith helps a Muslim to learn	
Ad-Din	Muslims should act in daily life	4: Imamah A term for God-given leadership		"obey God and the Messenger,		from the Qur'a		
Akhirah	Belief in the afterlife			and those in authority among you"		• The Hadith mal	kes the Qur'an easier to	
Al Qadr	Supremacy of God's will and The belief in predestination which is slightly different for Sunni and Shi'a Muslims	5: Mi'ad	The day of judgement and resurrection	"His is the judgement; and to Hjm you shall be returned"	What does the Sunnah tell Muslims?	It provides a g	overs many areas of life uideline for Muslim life nah for everything	





Keywords	What we a	are learning in this unit		A.	6 Articles of Faith	
Tawhid  Omnipotent	B. 5 Root C. Sunna D. Risala E. Muhar F. Nature G. Qu'rar	mmad e of Allah		Article of fai	th	What is it?
Immanent	I. Angels J. Al Qao K. Day of	S	Hell	3: 4:		
Transcendent	Root	. What is it?	Quote	5:		
Beneficient	1:			6:		
Sunnah	2:			C.	Sunnah and Hadith	
Qur'an						
Hadith	3:					
6 Articles of Faith						
5 Roots of Usul Ad-Din	4:					
Akhirah	5:					
Al Qadr	5.					





D.	Risalah (Prophethood	d)	E	Torah, Psalms and Gospels		
What is it	<ul> <li>Every Islamic presented</li> </ul>	The first was <b>Adam</b> , the last was Muhammad (Box E)  Prophets are guided by Allah Their love of Allah stops them from sinning Some prophets are messengers who have been given revelation of news  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		The Psalms of Dawud are a collection of prayers to Allah     They contain lessons of guidance for the people		
Why are prophets important?	Their love of All     Some prophets     revelation of ner			<ul> <li>This is the good news about Isa (Jesus)</li> <li>Muslims highly respect Isa because there are revelations in the Qur'an about him</li> <li>Muslims believe he was the Masih, he was not the son of Allah, he was not crucified, he did not die to save sins</li> <li>The gospels contain some mistakes because they were written many years after Isa died</li> </ul>		
Adam	<ul><li>The father of all</li><li>He taught about</li><li>He taught life or life</li></ul>			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	– remembered a	d in a dream to sacrifice Isma'il as a test of faith at Hajj every year is the ancestor of the prophet Muhammad	Scrolls of Ibrahim	<ul> <li>Revelations received by Ibrahim on the first day of Ramadan</li> <li>Contained stories about workship and reflection</li> <li>Not a book, individual revelations</li> </ul>		
	F.	The Nature of Allah				
Tawhid		<ul> <li>There is only one God and this God has no experience.</li> <li>He created everything.</li> <li>Only He should be worshipped: worshipping "There is no God but Allah, and Muhamm".</li> <li>"Allah witnesses that there is no deity exceed the company of the</li></ul>	other Gods is ad is his me cept Him"			
2: Omnipotent Allah is all powerful and has power over every		Allah is all powerful and has power over everyth	ing			
3: Immanence		Allah is active in the world and able to control events				
		Allah is outside of the universe     Not limited by time or space				
5: Beneficience		God has love and good will				
6: Mercy		<ul> <li>"In the name of Allah, the most compassi</li> <li>God is forgiving and caring</li> </ul>	onate, the m	ost merciful"		
7: Fairness and justice • Allah is fair to all people			- to allow by			

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: Transcenden	t			
5: Beneficience				
6: Mercy				
7: Fairness and	justice			





G.	Qur'an	l.	Angels			
Revelation	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	What are they?	<ul> <li>Angels are made from light and have wings which can move at the speed of light</li> <li>They have no gender and are in the unseen world</li> <li>They always complete what Allah asks and they always obey Allah as they have no free will</li> </ul>			
	After Muhammad received them, he recited them, and somebody wrote them down.	What do they do?	<ul> <li>What do they do?</li> <li>Watch over humans</li> <li>Bring peace to believers and instill fear in non-believers</li> <li>Angel of Death takes the soul at death</li> </ul>			
Authority	It is the direct word of Allah so it has His authrotiy     It is without error and remains in its' original form     A written book was needed to formalise the religion		<ul> <li>Greet people entering paradise or throw people into the pits of hell</li> <li>Signify the end of the world by blowing a horn</li> </ul>			
What does it contain?	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	Jibril	Most important angel in Isla     Always brings good news     Helped Ibrahim when he wa     Told Maryam she would hav     Dictated the Qur'an directly	s thrown in to a fire, opened up the Zamzam well for Hajar e a son (Isa)		
Supreme authority	It explains creations and other ultimate questions      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> <li>Assisted Muhammad with his spiritual mission</li> <li>Giver of rain and sustenance – in charge of plants and rain</li> <li>Helped Muhammad to fight for Makkah</li> <li>Will help to weigh peoples' actions on Judgement Day</li> <li>Mika'il prepared Muhammad by providing Jibril with purifying water</li> </ul>			
K.	Day of Judgement, paradise and Hell		J. Al Qadir			
11212	<ul> <li>Muslims believe Judgement day will come on a Friday (Adam was created on a Friday)</li> <li>It will be announced by Israfils' trumpet</li> <li>Allah will refer us to the book of deeds to justify damnation or salvation</li> </ul>		<ul><li>Allah is in charge of everyth</li><li>Everything is a part of Allah</li></ul>			
	Humans will go to paradise or Hell		E.	Muhammad		
Jannah	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		Why was he chosen?	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		
to Jannah	"enter among my servants! Enter my paradise!" People will arrive over the As-Sirat bridge There are 8 gates and you go through the one which represents your best action Two angels welcome people saying "peace be upon you"		What did he do as a prophet?	He became the ruler of Madinah and set up the first Islamic community He converted the people of Makkah to Islam		
GIII			Why is Muhammad important?	He is seen as the perfect role model as he is trustworthy and obedient to Allah His influence can still be seen in the Hadith and Sunnah The night of power in Ramadan is to remember Muhammad's first revelation from the angel Jibril		





G.	Qur'an	l.	Angels				
Revelation		What are they?					
		What do they do?					
Authority							
What does it contain?		Jibril					
_		Mika'il					
Supreme authority							
K.	Day of Judgement, paradise and Hell		J.	A	N Qadir		
What will happen ?							
					E.	Muhammad	
Jannah			Why w	vas h	ne chosen?		
Entry to Jannah			What d	did het?	ne do as a		
Jahann am			Why is importa	s Multant?	hammad		



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

a menudo

alegrarse de

comprensivo/a

- What we are learning this term:
- Talking about your family Describing your family and friends B.
- C. Explaining family relationships D. Describing relationships
- E. Describing future plans
- Translation practice
- 6 Key Words for this term
- 4. El año próximo Me llevo bien No soporto 2.
  - 5 Por otro lado 6. Vov a...

## 1.1G ¿Cómo es tu familia?

discuto

3.

- 1.1G ¿Cómo es tu familia? El/la abuelo/a
  - grandfather/grandmother
- los abuelos grandparents
- alegre happy tall
- alto/a amable kind
  - old
- anciano/a la barba beard
- calvo/a bald
- cariñoso/a affectionate, tender casi nearly, almost
- castaño/a brown hair colour corto/a short
- thin delgado/a las gafas glasses
- gracioso/a funnv good looking, handsome
- guapo/a El/la hermano/a
- brother/sister El/la hijo/a son/daughter
- joven young largo/a long
- straight liso/a
- la madrastra stepmother los ojos eyes
- stepfather el padrastro las pecas freckles
- pelirrojo/a red-haired el pelo hair rizado/a
- la tía
- el tío viejo/a old

sensible

- curly aunt
  - uncle

  - sensitive

conocer to know a person

1.1F Hablando de los amigos

often

to be happy about

understanding

- el consejo advice la cosa thing
- cuidar to look after la discusión argument divertido/a
- good fun egoísta selfish el equipo team
- escribir to write fastidiar
- to annoy, to bother fuerte strong
- hablador/a talkative honrado/a honest
- maduro/a mature
- mismo/a same peligroso/a dangerous
- reírse to laugh seguro/a certain, sure
- el sentido del humor sense of humour travieso/a naughty
- sad triste
- el verano summer la vida life
- 1.1H Relaciones con la familia abierto/a open
- aconseiar to advise actualmente nowadays aguantar to bear, to put up with
- arreglar to tidy la barrera generacional generation gap affection el cariño
- celoso/a jealous la culpa blame, fault los demás others harto/a fed up home el hogar hoy en día nowadays

way

to forget

proud

incluso

iuntos

la libertad

manera

molestar

olvidar

oír hablar de

orgulloso/a

injustamente

even unfairly together freedom to bother to hear about

To go to get on Me llevo Voy Soporto I get on I go Te llevas Vas

Va

Vamos

They go

They go

Van

1.1H Relaciones con la familia

fight

lazv

still

sad

1.2G Hablando de parejas

kiss

to cook

to buy

in love

happy

people

guest

husband

marriage

to seem

partner

to fight

to smile

relatives

wife, woman

girlfriend, fiancée

boyfriend, fiancé

flat, apartment

serious, responsible

rude

relatives

more and more

to miss someone

similar

to cause

to tend to

to treat

nephew, niece

Llevarse

You (s) get on

He/se gets on

Nos Ilevamos

They get on

They get on

Se llevan

parecido/a

perezoso/a

el sobrino / la sobrina

la pelea

provocar

tender a

todavía

tratar

triste

el beso

cocinar

comprar

feliz

la gente

el marido

la mujer

la novia

el novio

parecer

la pareja

pelear(se)

el piso

serio/a

sonreír

los parientes

cada vez más

echar de menos

enamorado/a

los familiares

el invitado/a

maleducado/a

el matrimonio

Se lleva

- Soportas You go You can stand s/he goes
  - Soporta He/she can stand
    - Soportamos W can stand

**Key Verbs** 

Soportar

To stand

I can stand

We do Soportan They can stand

así que

la boda

buscar

cambiar

casarse

el sitio

solo/a

el casamiento

Hacen They do

Hacer -

Hago

Haces

You do

Hace

s/he does

Hacemos

I do

to do/make

1.2F Planes para el futuro so, therefore wedding to look for

to change

weddina

Discutir -

to arque

Discuto

I argue

Discutes

Discute

Discutios

We argue

Discuten

They argue

You arque

He/she argues

- to get married colleague, friend el compañero/a decepcionado/a disappointed encontrar to find la felicidad happiness la fiesta party, festival por eso therefore próximo/a next
- soltero/a single tener suerte to be lucky holidays las vacaciones ya no no longer

place

alone, only

## 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 iubilado/a retired person. pagar to pay la pareja partner la piel skin por otro lado on the other hand

	blue F – orange H - Green	Key Questions	s: Answer the following in your own words. Use these model answers		
	My <b>grandfather</b> is <b>Happy</b> and <b>Kind</b>	¿Puedes describir te? ¿Cómo es tu aspecto físico, tu personalidad?	Soy bastante alto y delgado. Tengo los ojos azules y el pelo marrón y liso. Mis pade me describen como una persona cariñosa, comprensiva, sensible, honesta y un po vaga.		
Fiene losverdes	He has green eyes	¿Cómo sería un novio perfecto/una novia perfecta? ¿Por qué?	Mi novia perfecta sería muy guapa y honesta y tendría el pelo rubio, corto y rizado. Todos los días seria sensible y no sería nunca perezosa o torpe.		
	He has <b>Curly hair</b>	¿Quiénes son los miembros de tu familia?	Somos cinco en mi familia. Vivo con mis padres que se llaman Tengo un herma menor que se llama y tengo una hermana mayor que tiene años		
a de mis sueños	The <b>wife</b> of my dreams  I want a pretty <b>boyfriend</b>	¿Te llevas bien con tu familia? ¿Por qué?	Me llevo bien con mi hermano porque es cariñoso y siempre comprensivo. No me llevo bien con mi hermana porque nos peleamos mucho y mi hermana se enfada		
guiero um guapo	i want a pretty <b>boyinend</b>		conmigo.		
ouenos	My parents give me good advice	¿Hay discusiones en tu familia ¿De qué se discute?	? Sí, hay discusiones en mi familia. Hay tensión en la casa de vez en cuando. No est de acuerdo con los consejos de mis padres. También hay discusiones porque mi hermana pone su música demasiado fuerte		
	after others	¿Quieres casarte y tener niños en el futuro? ¿Por qué?	Si, en el futuro me gustaría casarme con un hombre/mujer (man/woman) honesto y sensible. Quiero casarme porque el matrimonio es muy importante para mi y quiero		
Se debe a los niños	It's necessary <b>to advise</b> kids		una boda perfecta en una iglesia. Quiero tener dos niños, una chica y un chico. V tener niños después de haber ido a la universidad		
Mi hermano es	My brother is understanding	¿Qué has hecho recientemente con tu familia?	Recientemente, fui al centro de la ciudad con mi familia. Fuimos juntos en coche y fuimos para comprar unos regalos para el cumpleaños de mi abuelo. Después		
Es bueno a otra gente	It's good <b>to know</b> other people		comimos en un restaurante, yo comí un bocadillo de pollo, mi hermana comió una ensalada. Me gustó mucho porque fue muy divertido y la comida fue muy deliciosa		
mporta	Having a <b>partner</b> is important	¿Crees que el matrimonio es importante para ti? ¿Por qué?	Quiero casarme porque el matrimonio es muy importante para mí y quiero una bod perfecta en una iglesia. Aunque las bodas son muy caras, tener una boda es mi ambición.		
me interesa	Getting married interests me				
Mis padres me dan	My parents give me lots of		Key Grammar		
	affection	Forming the preterite (past tense). Always remove	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are:		
No soy nunca	l'm never <b>jealous</b>	the –AR, -ER, -IR endings first	-AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron		
Estoy/a de los deberes	I'm <b>fed up</b> of homework		-IR: -í, -iste, -ió, -imos, -istéis, - ieron		
	To find a <b>partner</b>	Forming the conditional ('would like to' tense). Always remove the –AR, -	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían		
Fue una buena	It was a good <b>party</b>	ER, -IR endings first Using the immediate future	Voy a casarme = I'm going to get married		
No quiero ser	I don't want to be <b>single</b>	tense IR + A + INFINITIVE	Va a discutir con su padre = He / She is going to argue with his/her father		



chateo

redes sociales

2.

a veces

todos los días

usar

utilizar

la vez

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

ofrecer

poder

el ordenador

por desgracia

la revista digital

por mi parte

sencillo/a

tampoco

aunque

la regla

roto/a

único/a

ridículo/a

dar las gracias

dar

la pantalla

Saying how you keep in touch via the internet Picking out key words when reading

4. sala de chat

5. descargar

sometimes

every day

to use

to use

time

- Giving opinions about online messaging Talking about using a mobile
- Give opinions about mobile technology

What we are learning this term:

6 Key Words for this term

#### 3. en línea 6. subir

## 2.1G Comunicarse por internet

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

## 2.2H ¿Podrías vivir sin el móvil y la

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

#### 2.1F ¿Cómo prefieres mantenerte en contacto? comunicarse to communicate desafortunadamente unfortunately

empezar to start escoger to choose genial brilliant / great gratís free of charge el hecho fact el inconveniente disadvantage interactivo/a interactive el jefe / la jefa boss la letra letter of the alphabet mandar to send los medios sociales social media el móvil mobile phone

to offer

screen

simple

computer

to be able to

unfortunately

digital magazine

neither / nor

as far as I'm concerned

## 2.2G ¡El móvil para todo!

although

to aive

to thank

enviar to send el juego game lento/a slow el mensaje de texto text message el móvil mobile phone to surf the internet navegar la red la norma rule prohibido forbidden el regalo present, gift

rule

ridiculous

broken

only

## **Key Verbs**

Descargar Subir Mandar To download To upload To send

Subo

I upload

Subes

sube

He/she

uploads

suben

2.2F La tecnología portátil

Subimos

We upload

They upload

You upload

Mando I send Mandas

I do Haces You do

Hacer -

Hago

Hace

s/he does

to do/make

I chat Chateas You chat

Chatea

He/she chats

Chatear

To chat

Chateo

Manda He/she sends

Mandan

They send

You send

laptop

Mandamos We send

Hacemos We do

compartir

divertirse

gratuito/a

meiorar

el riesgo

tener éxito

el desarrollo

la desventaja

Hacen

They do

Chateamos We chat Chatean

They chat

andar

Descargo

I download

Descargas

descarga

You download

He/she download

Descargamos

We download

They download

Descargan

archivo

la canción

contestar

cualquier

el disco duro

el espacio

sacar fotos

la tableta

en vez de

felicitar

hasta

las felicidades

congratulations

congratulate

imprescindible

preocupar

la tecnología

igual

sentir

el correo basura

borrar

cargar

to walk file

to delete, erase

song to load to answer

spam, junk mail any from time to time hard drive

de vez en cuando space same el ordenador portátil

to take photos

to feel tablet technology

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

instead of

to send best wishes/to

essential

to worry

until

best wishes,

a mi iuicio in my opinion acosar to bully

2.1H Las redes sociales

el acoso bullying apasionar to excite aun even bajo

low to share el comportamiento behaviour development disadvantage

to have a good time free of charge to improve risk follower to be successful

el/la seguidor/a el/la usuario/a user



101

Translation Practice. G -	blue F – orange H - Green	Key Questions	: Answer the following in your own words. Use these model answers		
Mando a mis amigos	I send <b>emails</b> to my friends	¿Cómo usas las nuevas tecnologías/los redes sociales?			
Me gusta usar	I like to use <b>social</b> networks		en YouTube. Uso mi ordenador para hacer mis deberes y uso mi móvil para jugar juegos y subir y descargar fotos de mis amigos en Facebook.		
Siempre fotos a Instagram	I always <b>upload</b> photos to Instagram	¿Las nuevas tecnologías/los redes sociales son importante	Las redes sociales son muy importantes para mí. Las uso para contactarme con mis amigos, para charlar con mis amigos, para compartir experiencias y fotos, para ver		
	I receive more <b>messages</b> on FB than Twitter	para ti? ¿Por qué?	videos de mis músicos favoritos. Ayer usé mi móvil para llamar a mis amigos, mandé mensajes a mis amigos y hice mis deberes.		
El es más útil que Facebook	Email is more useful than Facebook	¿Crees que las redes sociales son buenas o malas? ¿Por qué			
Twitter es menos divertido que las	chatrooms		bueno es que es muy rápido y barato mantenerte en contacto con tu familia. Lo malo es que los móviles cuestan mucho dinero, tu vida no es muy privada, es difícil para, es muy fácil ser dependiente de las redes sociales. Lo malo es que las personas no		
Estoy borrando	I am deleting <b>files</b>		hablan y solo usan sus móviles.		
caros	Laptops are very expensive	¿Para qué usaste tu ordenador ayer?	Ayer usé mi ordenador para charlar con mis amigos y para mandar mensajes.  También, ayer descargué música de la Red y subí fotos en Facebook. Me gustó porque fue entretenido y fue mejor que hacer mis deberes.		
Me gusta a los videojuegos	l like <b>playing</b> video games	¿Qué es tu opinión de	En mi opinión Facebook etc es muy importante/útil/entretenido/divertido.		
muchas fotos con mi tableta	I take lots of photos with my tablet	Facebook/youtube/skype/Twitt er/Instagram?			
Prefiero correos eléctronicos	I prefer <b>to send</b> emails	¿Podrías vivir sin tu móvil / tu tableta? ¿Por qué?	No podría vivir sin mi móvil. Soy adicto a mi móvil. Lo uso todos los días para contactar con mi familia y es muy importante para buscar información, ayudar con los deberes		
I hate	I hate <b>spam emails</b>				
	We are helping young				
	children to use a laptop		Key Grammar		
He de usar Instagram	I have <b>stopped</b> using Instragram		Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are:		
Está hablar con su familia en Francia	He's <b>trying</b> to talk to his family in France		-AR: -é, -aste,-ó, -amos, -astéis, -aron		
He con comprar un móvil nuevo	I have <b>dreamt</b> of buying a new mobile		-ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR : -í, -iste, -ió, -imos, -istéis, - ieron		
de hablar con nuestros amigos	We have just finished speaking to our friends	('would like to' tense).	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían		
es	Technology is important	ER, -IR endings first			
importante para todos He Facebook	for everyone I have <b>used</b> Facebook		Voy a subir fotos = I'm going to upload photos Va a mandar un correo eléctronico = He / She is going to send an email		
antes	before				



3.

#### GCSE Unit 3 SPANISH Knowledge organiser. **Topic Free Time Activities**

a veces

cada

cenar

charlar

el coro

genial

nunca

la cena

cenar

comer

la comida

después

el helado

el huevo

el jamón

la leche

las legumbres

la mantequilla

la mermelada

las patatas fritas

la manzana

desayunar

el desayuno

an evening meal

descansar

el documental

las noticias

ocupado/a

el fin de semana

bastante

3.1F ¿Qué haces en tu tiempo libre?

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

What we are learning this term:

### 6 Key Words for this term

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

## 3.1G ¿Qué te gusta hacer?

aburrido/a boring

#### bailar to dance

to sing cantar el cine cinema

de vez en cuando from time to time, occasionally

entretenido/a entertaining challenging

estimulante to play (game, sport) to read

jugar leer libre free odiar to hate la película film

practicar to practise salir to go out la tarde afternoon, evening el teclado kevboard

tocar to touch, to play(an instrument) to see, watch ver

3.3G ¿Haces deporte? activo/a active

in the open air,

al aire libre outdoors to help basketball

ayudar el baloncesto el campo countryside, playing court

stadium

to ride a horse

field la cancha los deberes homework la equitación horse riding

montar en bicicleta to ride a bike

el estadio

montar a caballo

policíaco/a police, detective, crime (adj.) to put poner por lo general in general alwavs

sometimes

each, every

documentary

occupied, busy

weekend

great

news

never

to have an evening meal

auite

to chat

choir

los dibujos animados cartoons

to rest

siempre theatre el teatro la telenovela soap opera terminar to finish time el tiempo

todo/a/os/as all. every tonto/a silly, stupid la vez time, occasion

el (fem.) aqua (mineral) (mineral) water beber to drink

el bocadillo sandwich la carne meat

to eat

breakfast

afterwards

ice cream

egg

ham

milk

pulses

butter

apple

jam, marmalade

chips, fries

evening meal

lunch, food, meal

to have breakfast

3.2G Comer y Beber

to have supper / to have

la tortilla la tostada el vaso las verduras

Salir

Salgo

Sales

Sale

I go out

You go out

He/she goes out

Salimos

Salen

We go out

They go out

el pescado

el pollo

el postre

el queso

la sopa

el té

tomar

drink)

el perrito caliente

To go out

glass el atún

el jamón serrano

las iudías verdes

vegetables 3.2F Vamos a comer fuera

They play

**Key Verbs** 

Jugar

To play

Juego

I play

Juega

Juegas

You play

He/she plays

Jugamos

We play

Juegan

To go

Voy

I go

Vas

Va

You go

s/he goes

Vamos

They go

They go

hot dog

chicken

cheese

omelette

toast

soup

tea

dessert, pudding

to take, to have (food,

Van

3.2G Comer y Beber

fish

Hacen They do

el concurso

(contest)

el partido

probar

Hacer -

Hago

Haces

You do

Hace

s/he does

Hacemos

We do

I do

to do/make

Tocan They play 3.1H Hablando del tiempo libre y de los planes

Tocar

Toco

I play

Tocas

Toca

You play

He/she plays

Tocamos

We play

To play (ins)

aburrido/a boring agradable pleasant al aire libre in the open air, outdoors drums song

la batería la canción dar un paseo to go for a walk from time to time. de vez en cuando occasionally desafiante challenging fun exciting

3.3F ¿ Qué deportes harás?

rock climbing

divertido/a emocionante

tired

el alpinismo cansado/a

la carrera race

competition

contestar to answer durante during el ejercicio exercise el entrenamiento training entrenar to train

team skiing

match

to try, to test

el equipo el esquí este, esta this ganar to win

el jugador player mañana tomorrow el miembro member

squid la cebolla onion el cerdo pork la cerveza beer los champiñones mushrooms

la barra el bistec steak los calamares

tuna cod loaf

el bacalao

el chorizo chorizo la chuleta chop el cordero lamb el filete fillet la fresa strawberry las gambas prawns el gazpacho chilled tomato soup los quisantes peas

cured ham

green beans

Key Questions: Answer the following in your own words. Use these model answers



Translation Practice. G – blue F – orange H - Green



No mo queto			
Me encanta con I mis amgos fi Me escuchar música No me gusta I	don't like going shopping love going out with my riends love listening to music don't like dancing  f I have the time do music classes	¿Qué haces en tu tiempo libre Frecuencia? Opiniones?	-Normalmente juego al futbol todos los días después del colegio. Lo que me encanta es jugar al futbol con mis amigos porque es bueno para la salud y es emocionante y relajante jugar contra tus amigos. De vez en cuando juego con videojuegos pero ayer hice ciclismo, hice mis deberes y toque mi guitarra. Ayer, fui al colegio durante el día. Después del colegio fui al polideportivo con mis amigos y jugué/jugamos al baloncesto juntos. Ayer por la mañana fui de compras en el centro de la cuidad con mi madre y fuimos a las tiendas de ropa. Lo que me encantó/gustó fue que ví una película entretenido por la noche/ fue que jugué mi deporte favorito y podía entrenarme. Todos los días juego al futbol y al baloncesto, que son mis deportes favoritos. De vez en cuando hago ciclismo y practico el atletismo pero son muy estresantes, duros y no son relajantes. Lo que me encanta es jugar al fútbol en mi equipo los fines de semana.
De vez en cuando Funa novela a guitarra I	From time to time, I read a novel always play the guitar	¿Te gusta ver la televisión? Qué has visto en la televisión recientemente?Tienes unprograma favorito?	Si, me gusta ver la televisión, me gustan los programas de horror, de tele-realidad, los documentales y de deporte. Lo que me encanta es ver los dibujos-animados porque son más entretenidos que las noticias. Ayer ví las noticias con mis padres. Mi programa favorito es porque es
A veces a algún S concierto c	with the group  Sometimes I go to some concert	¿Qué es tu película favorita? Qué película has visto recientemente en el cine?	Mi película favorita es porque me encantan las películas de acción/tiene mucha violencia/tiene buenos actores/es muy romántica/me encanta la historia/tiene buenos efectos especiales.
juego al fútbol p	On the weekend I always blay football  am always busy	¿Cuando se cena en Inglaterra y en España? ¿Cuándo prefieres cenar o almorzar?	Normalmente se cena en Inglaterra a las seis, como mi almuerzo a las dos, como mi desayuno a las ocho.
preocupada  Generalmente C música por las tardes	Generally I listen to music in the evenings	Describe una cena especial	Recientemente fui a un restaurante con mi familia para celebrar el cumpleaños de mi abuelo. Fuimos a un restaurante chino porque es la comida favorita de mi abuela. Primero, comí y bebí. Para el postre comí y bebí . Lo que me gustó fue la buena comida/ver a y hablar con toda mi familia. Fue muy emocionante.
	Playing video games Interests me		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Ella quiere patina en la	She wants to skate on the		Key Grammar
pista de identification identi	ce rink will come to the gym Will you know if there's a	Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are:  -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR: -í, -iste, -ió, -imos, -istéis, - ieron
	match? will try cycling	Forming the future tense ('will')	Future Tense ('will')  All verb groups: -é, -ás, -á, -emos, -éis, -án
Fue una buena It	t was a good <b>party</b>	Imperfect Tense (Past,	-ar -aba, -abas, -aba, -ábamos, - abais, -aban
No quiero I	don't want <b>to participate</b>	ongoing actions, descriptions, 'used to' or 'was doing')	-er and –ir -ía, -ías, -ía, -íamos, - íais, -ían



B.

C.

D.

E.

3.

acostarse

el bollo

la cena

la dieta

la leche

ligero/a

probar

levantarse

participar

el recreo

saludable

la sobremesa

after a meal

el trabajador

tranquilamente

la tradición

traer

el vaso

acostarse

cerrarse

coger

corto/a

empezar

hace calor

levantarse

el marido

la mayoría

el ordenador

la comida

el desayuno

coger

#### GCSE Unit 4 SPANISH Knowledge organiser. **Topic Customs and Festivals**

4.1F Algunas costumbres regionales

old

battle

horse

shirt

pleasant

atmosphere

competition

to commemorate

parade, procession

to enjoy oneself

la actuación performance

Celebro I celebrate To go

Voy

I go

Vas

Va

You go

s/he goes

Vamos

They go

They go

at the end

American

Australian

**British** 

T-shirt

carnival

to shower

(entry) ticket

to start

photo

people

to limit

to clean

to arrive

hose, hosepipe

the main square

everyone, everybody

to return, to go back

wet, soaked

heap, pile

first

soon

red

dirty

typical

to throw

tomato

tourism

several

volunteer

visitor

(time) ago

Japanese

to enjoy oneself

lorry

Van

4.2G Las fiestas de España - la Tomatina

Celebrar

Celebras

celebrates

Celebran

al final

americano/a

australiano/a

británico/a

el camión

la camiseta

el carnaval

divertirse

empezar

la entrada

duchar

la foto

limitar

limpiar

llegar

la gente

hace (+ tiempo)

japonés/esa

la manguera

la plaza mayor

todo el mundo

mojado/a

el montón

primero/a

pronto

rojo/a

sucio/a

típico/a

el tomate

el turismo

el/la visitante

el/la voluntario/a

varios/as

volver

tirar

Celebramos

We celebrate

They celebrate

You celebrate

Celebra - he/she

To celebrate

Disfruto I enjoy

Disfrutar

To enjoy

Disfrutas

You eniov

He/she enjoys

Disfrutamos

We enjoy

Disfrutan

They enjoy

Disfruta

**Key Verbs** 

Disfrazo I dress up Disfrazas

Disfrazamos

We dress up

Disfrazan

Disfrazar

To dress up

You dress up Disfraza He/she dresses up

We do Hacen They do

Hacer -

Hago

Haces

You do

Hace

s/he does

Hacemos

I do

to do/make

They dress up 4.2F Las fiestas del mundo hispano

altar, shrine

el altar los antepasados ancestors to appear

aparecer

sugar

el azúcar

skull

la calavera celebrarse

to be held

el cementerio

close to, near to city, town

to start

parade

devil

lit

tin

completely

to describe

in honour of

family members

Hispanic (i.e. of the

skeleton

famous

flower

mine

miner

dead

'mole' sauce /

mountain

normality

to protect

village, (small) town

number

silver

dressed up, disguised

la ciudad

cemetery

cerca de

comenzar

describir

el desfile

el diablo

disfrazado

en honor a

encendido/a

el esqueleto

los familiares

el/la minero/a

la montaña

el número

la normalidad

Spanish speaking world)

Mexican chocolate sauce

el estaño

famoso/a

hispánico

la mina

el mole

muerto

la plata

proteger

el pueblo

la flor

completamente

What we are learning this term:

Learning about local customs

Talking about a Spanish festival

Skim reading for key information

Using past expressions of time

6 Key Words for this term divertirse

4. el desfile

5. celebrarse

hispánico el turismo 6. los antepasados

to go to bed

evening meal

food, meal, lunch

to participate, to take part

sitting chatting at the table

Learning about Spanish life and routines

Learning about Latin American culture

4.1G La vida en familia

bun

diet

milk

light

break

healthy

worker

tradition

to bring

calmly

glass

4.1H ¿Cambian las costumbres?

to go to bed

to close

to catch

short

to start

it is hot

to get up

husband

majority

computer

to catch

breakfast

to get up

to trv. to trv out

a media mañana at mid-morning to run

correr demasiado

el diablo

divertirse

el encierro

encontrar

enorme

entender

entrenarse

extraño/a

fatal

formar

histórico

humano

llevar

nadie

natural

el origen

el peligro

peligroso/a

precioso/a

el producto

la seguridad

saltar

la suerte

el toro

la torre

el traje

único/a

varios/as

vestirse (de)

por encima de

pasarlo bien

el espectáculo

impresionante

el Mediterráneo

person from North Africa)

incómodo/a

el/la moro/a

emocionante

agradable

antiguo/a

la batalla

el caballo

la camisa

el concurso

conmemorar

el ambiente

la costumbre el desfile

custom too much, too many

devil

exciting

bull run

enormous

to understand

show, display

to find

to train

strange

to form

historic

human

no one

natural

danger

over

dangerous

beautiful

product

to iump

luck

bull

tower

several

safety, security

suit, costume

only, unique

to dress (in)

origin

impressive

uncomfortable

Mediterranean

to wear, take, carry

Moor (historically a

to have a good time

awful

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

rubbish.

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

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



la alfombra

el armario

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

### What we are learning this term: Saying what your house is like

- Describing your house and where it is
- Talking about the amenities in your area Discussing the advantages and
- disadvantages of living in the town and country

## 6 Key Words for this term

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

### 5.1G Mi casa

#### carpet, rug cupboard, wardrobe

lift

- el ascensor la butaca armchair la cocina kitchen, cooker, cuisine
  - comfortable, convenient, handy
- cómodo to share compartir
- el cuarto de baño bathroom
- el dormitorio bedroom los electrodomésticos (electrical) appliances
- la escalera stairs
- el espejo mirror
- shelves, shelving unit la estantería
- 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

#### el barrio neighbourhood, area

5.2G ¿Qué se puede hacer donde vives?

- 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
- tobacconist's (also sells el estanco stamps)
- los grandes almacenes department stores
- jeweller's la joyería la juguetería toy shop
- el mercado market doll la muñeca
- el museo museum
- la panadería baker's
- infantil park, playground el parque
- la pastelería cake shop los pendientes earrings
- bull ring la plaza de toros
- la ropa (de marca) (designer) clothes
- la tienda de comestibles grocery store, food
- - 5.2F Mi ciudad

- avenue
- la avenida el avuntamiento Town Hall
- bienvenido/a welcome
- el centro comercial shopping centre la ciudad city, large town el club de ióvenes vouth 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 to go shopping ir de compras el país country

square (in a town)

town, village, people

sports centre

port, harbour

bridge

century

la plaza

el puente

el puerto

el siglo

el polideportivo

el pueblo (small)

- Vivir alquilar Comprar To live To rent To buy Vivo Compro
  - Alauilo I rent

Alguila

Alguilamos

We rent

Alguilan

5.1H Mi casa y mi barrio

balcony

heating

lower

pet

shop

garden

**luxurious** 

dining room

business, shop

swimming pool

ground floor

upper, higher

view, sight

tower, tower block

essential, indispensable

floor (of a building), plant

la cocina amueblada fitted kitchen

They rent

under, downstairs

above, upstairs, up

spacious, roomy

I live

Vives

Vive

You live

Vivimos

We live

Viven

abajo

arriba

amplio/a

el balcón

la calefacción

el comedor

el comercio

inferior

el jardín

lujoso/a

la mascota

la planta baja

la piscina

la planta

superior

la tienda

la torre

la vista

imprescindible

They live

He/she lives

- Alquilas Compras You rent You buy
- Compra He/she rents He/she buys
  - Compramos We buy

Compran

They buy

I buy

**Key Verbs** 

Hacemos We do Hacen They do

las afueras

antiguo

el árbol

el campo

house, villa

la costa

el estante

encontrar

la grania

la librería

la montaña

los muebles

el mueble

peor

quardar

encontrarse

away,to save

encontrarse con

field, sports ground

el chalet / chalé

Hacer -

Hago

Haces

You do

Hace

s/he does

I do

to do/make

We move Se mudan

old

They move 5.1F ¿Cómo es tu casa?

Mudarse

To move

Me mudo

Te mudas

You move

Se muda

He/she moves

Nos mudamos

I move

outskirts tree countryside,



bookcase, bookshop

piece of furniture

mountain

furniture

worse

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

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



#### GCSE Unit 6 SPANISH Knowledge organiser. **Topic Social Issues**

útil

#### What we are learning this term:

- Talking about different ways of volunteering
- Talking about charities and voluntary work
- Talking about healthy eating
- Talking about healthy and unhealthy lifestyles
- Listening for different tenses

#### 6 Key Words for this term

- un voluntario/a
- 4. comedor social 5. banco de alimentos
- ecologista los sin techo
  - 6. auiero

#### 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

to clean limpiar

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

the homeless los "sin techo"

the Third World el Tercer Mundo la tienda con fines benéficos charity shop

/tienda solidaria

volunteer el/la voluntario/a

#### 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 to wait for, to hope, to esperar expect formar parte to be part (of) to make the bed hacer la cama el centro de menores children's home tutelados el idioma language uselessel inútil propósito aim, purpose, objective repartir to deliver, to hand out tener sueño to be sleepy la tienda solidaria charity shop

#### 6.2G ¿Comes bien?

useful

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

aquantar

el tabaquismo la venta

#### 6.1H La importancia de hacer obras benéficas

to walk

andar

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 facilities las instalaciones 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?

to put up with, to bear

addiction to tobacco

sale

disgusting asqueroso/a 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 serious grave hacer daño a to injure, to harm el hígado liver harmful nocivo/a 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 to cause, to provoke provocar el pulmón lung reducir to reduce síndrome de withdrawal symptoms abstinencia el sobrepeso excess weight, obesity subir to go up

#### Translation Practice. G - blue F - orange H - Green Trabajo voluntario I work as a volunteer ¿llevas una ¿Comes de comida a los rápida? I serve food to the clients customers Pienso I'm thinking about en el working in the school instituto ¿Cómo te r ayudar a otra I hope to help other ¿te acuesta people gente ejercicio? work many hours on the muchas horas el weekend fin de semana I think that **helping** other Pienso que a otra gente es muy importante people is very important I'd like to be a volunteer ser voluntario/a I would like to help ayudar Quisiera I'd like to prepare the las ¿Qué come comidas meals la cena, tu Me gustaría I'd like to raise funds fondos en un hospital I used to help in a ¿Crees que hospital una vida sa I find the work a little el trabajo un para los jóv poco difícil difficult vida sana? hacer nada I don't want to do No anything It would be impossible to imposible Forming <sup>1</sup> hacer todo ese trabajo do all that work condition ¿Qué What **would you do**? tú? to' tense) remove th de estudiar por I stopped studying to -IR ending voluntar lvolunteer **Perfect Tense** ('have Formed with the verb 'haber': he, has, ha, hemos, habéis, han + past participle: le encanta My **boyfriend** loves A mi done...') -ar: -ado -er/ir: -ido volunteering voluntar e.g. He estudiado = I have studied No nada wouldn't give anything No el tiempo I wouldn't have the time

Key Question	Key Questions: Answer the following in your own words. Use these model answers			
a vida sana? lemasiada comida	Pienso que llevo una vida sana. Todos los días como un poco de fruta y bebo agua que es sano aunque de vez en cuando como las patatas fritas que son grasientas y malsanas. Solo como la comida rápida a menudo porque lo que no me gusta es la comida grasienta. No fumo y nunca voy a fumar. Es asqueroso pero mi padre fuma. Hago también mucho ejercicio. Ayer comí una ensalada que fue muy sana y hice ciclismo y deporte en colegio.			
mantienes en forma tas tarde? ¿haces	Creo que como suficiente fruta y verdura porque como frutas y verduras todos los días. Mi fruta favorita es la manzana porque es dulce y fácil a comer, aunque como bastante comida rápida también. Ayer para la cena comí dos manzanas y un plátano. ¡Qué sano! Cuando tengo calor bebo mucha coca light con hielo sin embargo los gaseosas/las bebidas azucaradas no son muy sanas. Cuando tengo frio bebo chocolate caliente con mucha leche que es delicioso. Ayer bebí demasiado coca light Normalmente hago bastante ejercicio, que es muy sano. Todos los días voy a pie al colegio y los fines de semana hago ciclismo con mis amigos en el campo que es entretenido y bueno para el cuerpo/la salud. No me acuesto tarde durante la semana. Me acuesto a las diez pero los fines de semana me acuesto a los doce de la noche porque veo películas y videos de Youtube en mi móvil. Ayer me acosté a las once.			
nes para el desayun ı almuerzo? ¿es sar				
le es necesario lleva ana/es necesario ovenes llevar una ?	Creo que es muy importante llevar una vida sana/Creo que es muy importante para los jóvenes llevar una vida sana. Es importante llevar una vida sana para ayudar con el trabajo en el colegio, para mantenerse en forma, para no ser gordo, para tener un buen aspecto físico, para mantener una buena salud, porque ayuda con tus estudios			
	Key Grammar			
the nal ('would like e). Always the –AR, -ER, ngs first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are:  -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían			



#### GCSE Unit 7 SPANISH Knowledge organiser. **Topic Global Issues**

la basura

combatir

los residuos

a favor (de)

asistir a

buscar

contribuir

la culpa

en contra

ready to

missing

merecer

necesitar

perezoso/a

perder

**auerer** 

hace(n) falta

la libertad (de

pensamiento)

fresco

faltar

la creencia

la enfermedad

la alimentación

nourishment.food

salvar

What we are learning this term:		
Α.	Talking about reusing things, reducing waste	

- Talking about ways of protecting the environment Talking about poverty
- Talking about homelessness
- 6 Key Words for this term

- la libertad
- pensamientos 3. asistir a
- 5. violento/a 6. la culpa

4. el destrozo

## 7.1G Reutilizar, reducir, reciclar

ahorrar to save la basura rubbish la bolsa de plástico plastic bag

cardboard

el cartón cerrar el contenedor

en vez de intentar to try to

la lata tin, can el malgasto waste

el papel (reciclado) (recycled) paper la papelera la pila battery

plastic el plástico ponerse to put on (clothes) los productos químicos chemicals, chemical

products el proyecto project recargable

reciclar reutilizar la Tierra

tirar tratar de el vidrio

Earth

to shut, to close, to turn off (tap)

container instead of

wastepaper basket

rechargeable

to recycle to reuse

to try to

to pull, to throw away glass

light bulb el combustible fuel

7.1F Protegiendo el medio ambiente

rubbish

to fight, to combat

air pollution la contaminación atmosférica 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

to save

refuse, waste, rubbish

#### 7.2G Los necesitados

la asistencia médica medical care

in favour (of)

feeding.

belief

illness

fresh

to deserve

to need

to lose

to love

lazy

to attend to look for to contribute blame, fault against estar dispuesto/a a to be prepared to, to be to be lacking, to be

to be necessary, to need

freedom (of thought)

la bombilla (de bajo consumo)(low-energy)

We recycle They go Reciclan They recycle

Reciclar

Reciclo

I recycle

Reciclas

Recicla

You recycle

Sh/e recycles

Reciclamos

el destrozo

formar parte de

troublemaker

maltratar

el/la gamberro/a

escoger

la falta

To recycle

They go 7.2F Los "sin techo"

to choose

to be part of

hooligan, lout,

to mistreat, to ill-treat

lack

To go

Vov

I go

Vas

Va

You go

s/he goes

Vamos

Van

damage, destruction

**Key Verbs** 

Apagar

Apago

I turn off

Apagas

Apaga

Apagamos

We turn off

Apagan

They turn off

You turn off

He/she turns off

To turn off

to approach

la pobreza poverty recoger to pick up

los niños de la calle street children

la ONG (organización NGO (non-

governmental organisation)

no gubernamental)

robar to steal, rob el vertedero rubbish dump, tip la violencia violence violento/a violent

## 7.2H Es importante ayudar a los demás

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

7.1H Problemas ecológicos acercarse a

Hacer -

Hago

Haces

You do

Hace

s/he does

Hacemos

We do

Hacen

They do

I do

to do/make

Encender

To turn on

Enciendo

**Enciendas** 

You turn on

He/she turns on

Encendemos

We turn on

Enciendan

They turn on

**Encienda** 

I turn on

el aquiero hole la aldea (small) village alejar to move (something) further away aleiarse de

el humo smoke

la marea negra

el huracán

el incendio

la mancha

la muerte

el petrolero

el nivel

la lluvia

to move further away from amenazar to threaten arruinar to ruin el atasco

traffic iam, hold-up el ave (marina) (fem.) (sea) bird ozone layer

el calentamiento global warming global la capa de ozono el casco helmet, hull (of ship) about a hundred el centenar la central eléctrica power station la circulación traffic constituir to constitute to cut, to cut off cortar el efecto invernadero greenhouse effect extender to spread, to stretch frenar to brake, to put a stop

hurricane fire rain stain oil slick death level oil tanker el/la pescador/a fisherman/fisherwoman



Translation Practice. G -	blue F – orange H - Green	Key Question	s: Answer the following in your own words. Use these model answers	
agua transporte público	I save water I use public transport	¿Qué haces para ahorrar energía/agua?	Me importa ahorrar energía y agua. Normalmente me ducho en vez de bañarme. Siempre cierro los grifos. Intento no malgastar agua o energía. Me pongo un jersey en vez de ponerla calefacción y solo pongo el lavaplatos cuando el lavaplatos está lleno.	
Uso pilas	l use <b>rechargeable</b> batteries	¿Qué cosas reutilizas?/reciclas / ¿Usas papel reciclado?		
al instituto a pie	I go to school by foot I recycle cans	¿Qué deberías hacer para proteger el medio ambiente?	Hay muchas cosas que deberías hacer para proteger el medio ambiente. Deberías apagar las luces, el televisor y el ordenador. Tienes que cerrar las puertas en casa y debes reciclar las latas, las bolsas de plástico y el vidrio. Debes bañarte lo menos	
el uso de productos químicos	I avoid the use of chemical products	¿Qué vas a hacer para proteger el medio ambiente?	posible. Deberías usar el coche lo menos posible.  En el futuro voy a reciclar más. Siempre voy a reciclar las botellas de vidrio y de plástico. Voy a apagar el televisor y el ordenador cuando termino. Voy a ir lo más posible en bicicleta o a pie. Voy a ir en coche lo menos posible.	
Es necesario tomar urgentes que luchar	It's necessary to take urgent measures  We have to fight	¿Qué hiciste ayer para proteger el medio ambiente?	Ayer reciclé la basura en casa. Ayer separé la basura en casa para mis padres. Ayer fui a colegio a pie en vez de ir en autobús/en coche. Ayer cerré las puertas y las ventanas en casa para conservar el calor en casa.	
que proteger el medio ambiente uso bolsas	We must protect the environment I always use recyclable	¿Qué es el problema del planeta que te preocupa más?	Lo que más me preocupa es la deforestación/el problema del tráfico/la sequía/las	
reciclables	bags  I try to recycle as much			
' '	as possible	Key Grammar		
No nada	I don't recycle anything	Future Tense ('will')	All verb groups: -é, -ás, -á, -emos, -éis, -án	
ayudar	I want to help		With this tense, do NOT take the verb ending away but ADD it on to the infinitive.	
	It <b>worries</b> me that there is so much poverty	- · · · · · · · · · · · ·		
	It <b>annoys</b> me that there are people without food	Forming the conditional ('would like to' tense). Always remove the –AR,	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are:	
Me de que tu hermana pueda ayudar	I'm <b>delighted</b> that your brother can help	-ER, -IR endings first	-AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían	
Me triste la situación	It <b>makes</b> me sad the situation	Using the immediate future tense IR + A + INFINITIVE Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father		
Nos falta recursos	We are <b>missing</b> resources			
Me mucho	It <b>matters</b> to me a lot			



## GCSE Unit 8 SPANISH Knowledge organiser.

el abrebotellas

el abrelatas

## **Topic Holidays and Travel**

Talking about travelling to holiday destinations

What we are learning this term:

- Talking about the weather
- Talking about holiday accommodation
- Talking about the regions of Spain
- Understanding tourist leaflets and websites

#### 6 Key Words for this term

alojarse 2. veranear

el andén

el viaje

journey

- 4. vacaciones 5. un folleto
- la pensión 6. el AVE

el aire acondicionado air conditionina

#### 8.1G ¡Me voy de vacaciones!

platform

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

## 8.1F ¿Dónde te alojas?

tin-opener

bottle-opener

el aeropuerto airport on the right a la derecha a la izquierda on the left el alberque iuvenil vouth hostel to stay (in a hotel) Alojarse 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 leaflet el folleto la gasolina (sin plomo) (unleaded) petrol el guía / la guía guide (person) la quía quidebook la habitación (doble/ (double/single) room individual) key la llave moiarse 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 I was born Nací he/she was born nació el país country Pescar to fish el río river la sierra mountain range tanto so much, so many

## **Key Verbs**

You stay

Se queda

We stay

Se quedan

They stay

abrir to

abierto/a

open

open

He/she/it stays

Nos quedamos

Quedarse	<u>Ir</u>	Veranear	
To stay	To go	To summer holiday	
Me quedo	Voy	Veraneo	
I stay	I go	I summer holiday	
Te quedas	Vas	Veraneas	

Veranea

Veraneamos

Veranean

We summer hol

They summer hol

He/she summer hol

I do Haces You summer hol You do

Hacer -

Hago

to do/make

s/he does

Hacemos

Vuelas You flv Hace Vuela

Volar

To fly

Vuelo

He/she/ it flys

Volamos

I fly

We do We flv Hacen Vuelan They do They fly

8.2F Un folleto turístico

You go

s/he goes

Vamos

They go

They go

Van

Va

8.1H ¿Qué hiciste y qué te gustaría hacer durante las vacaciones? aburrirse to get bored

something)

broncearse

el crucero

descansar

coger

callado/a quiet, reserved to load cargar 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 to go for a walk ir de paseo la mina mine el monasterio monastery el monte hill. mountain sheep la oveja 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 vallev

#### 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

el esquí acuático water skiing extranjero/a foreign el extranjero (en el , abroad al ) France Francia brilliant, great genial Greece Grecia 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

acabar de (+ infinitive) to have just (done

to get a tan

to catch, to take

cruise

to rest

relajarse to relax sunshade, parasol la sombrilla el vestuario changing room, cloakroom night life to return

gold

la época era, age, time

silver

to return

el oro

la plata

regresar

la vida nocturna volver el vuelo flight colocar to place, to put la empresa company, firm



Translation Practice. G – blue F – orange H - Green		Key Questions: Answer the following in your own words. Use these model answers		
	Who do you go with?  We are going to go by coach I'm going to travel by plane I want to go by boat	. ¿Dónde vas de vacaciones normalmente, con quien, cuando, como viajas, el tiem qué haces?	general voy con (pero el año pasado fui con / en el futuro me encantaría ir con	
Me gusta en coche	I like <b>going</b> by car I go with my <b>friends</b> by	¿Donde fuiste el año pasado de vacaciones? ¿Cómo fuero Qué hiciste? Comiste?	El año pasado fui a Málaga en España y fui con mis padres. Viajamos en tren y en avión. No me gustó el viaje porque fue demasiado largo y no fue relajante. Tuve que esperar demasiado tiempo en el aeropuerto. Durante las vacaciones nadé en el mar, tomé el sol en la playa y mis hermanas menores jugaron mucho en el agua. Probé platos típicos de la región de Málaga pero no me gustaron los mariscos o las gambas. Sobre todo, me encantaron mis vacaciones porque hizo mucho sol y España es mejor que Inglaterra.  nadé hice jugué fui a descansé me relajé me alojé ¡Qué bueno!	
Después de	After arriving			
de comer voy a nadar ¿A dónde el año pasado?	Before eating I'm going to swim Where did you go last year?	¿Qué tipo de vacaciones prefieres?	Prefiero las vacaciones en las montañas/en el campo/en una ciudad/de verano/de invierno porque en verano suele hacer calor y puedo relajarme en la playa/en invierno porque me encanta el frio y me lo paso bomba celebrar las navidades con mi familia. ¡Que divertido!	
Meen Está en el sur	I stayed in It's situated in the south	¿Qué hacías en vacaciones cuando eras joven?	Cuando era joven, iba a Escocia cerca de Edimburgo. Siempre viajábamos en coche. Nos alojábamos en un hotel de lujo. Solía (I used to usually) ir a un restaurante para comer. Comía siempre las patatas fritas y pescado pero mi hermano comía siempre los platos típicos de escocia como el Haggis, que era asqueroso. Qué Asco	
Las casas están blancas	The houses are <b>painted</b> white	•		
La región está por unos ríos	The region is <b>crossed</b> by some rivers	Key Grammar		
Cuando pequeño/a he ido a Francia.	When I was younger I've already been to	Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are:  -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron	
El próximo verano a Chipre El pueblo muy	France.  Next summer I will go to Cyprus  The town was very quiet	Imperfect Tense (Past, ongoing actions, descriptions, 'used to' or 'was doing')	-IR: -í, -iste, -ió, -imos, -istéis, - ieron  -ar -aba, -abas, -aba, -ábamos, - abais, -aban  -er and -ir -ía, -ías, -ía, -íamos, - íais, -ían	
tranquilo	Where did you stay?	Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father	
Nunca ido.	We have never been.			



#### GCSE Unit 9 SPANISH Knowledge organiser. **Topic My Studies**

#### What we are learning this term:

- Giving your opinion about different subjects
- Talking about your studies
- Talking about your school life and daily
- Talking about school rules and uniform
- Translating into English

#### 6 Key Words for this term

asignaturas

useful

- 4. suspender
- 2. 5. licienciatura notas
- 3. aprobar 6. eleair

#### 9.1G El instituto y las asignaturas

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

#### 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 dictionary el diccionario 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 to take, to carry, to wear llevar mejorar to improve to look at mirar el mundo world necesitar to need la nota grade to offer ofrecer el ordenador computer to organise organizar la palabra word la pantalla screen participar to take part pedir to ask for, to request pegado/a a glued to perder to lose, miss blackboard la pizarra 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	
Apruebo I pass	Eligo I choose	Suspendo I fail		Estudio I study	
Apruebas You pass	Eliges You choose	Suspendes You fail		Estudias You study	
Aprueba He/she/it passes	Elige He/she/it chooses	Suspende He/she/it fails		Estudia He/she/it studies	
Aprobamos We pass	Elegimos We choose	Suspendemos We fail		Estudiamos We study	
Aprueban They pass	Eligen They choose	Suspenden They fail		Estudian They study	
9.1F ¿Cómo ser buen estudiante?				Qué tچ 9.1H	
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				el/la alumno/a pu antiguo/a old asustado/a fright asustar to frighten el atasco traffic ja atento/a attentive el aula (fem.) cla ayudar to help buscar to look for cambiar to chang cansado/a tired conocer to meet, contento/a glad,	
9 1H ; Qué tal el instituto? contestar to a			estar to ansv		
preocupar to worry los deter la sala de informática IT room deter sencillo/a simple distir			eberes hom iorado/a dila		

Sentirse to feel usar to use el viaje journey la zona área

#### ey study They think 9.1H ¿Qué tal el instituto?

Pensar

To think

Pienso

I think

Piensas

You think

Pensamos

We think

Piensan

He/she/it thinks

Piensa

ıno/a pupil old /a frightened frighten traffic jam, blockage attentive (fem.) classroom to help to look for to change a tired to meet, to get to know glad, happy to answer school vear. course homework do/a dilapidated, shabby different la emoción excitement emocionante exciting encima on top encontrar to find explicar to explain feo/a ugly el gimnasio sports hall, gym hambriento/a hungry el idioma language inmenso/a immense el laboratorio laboratory largo/a long mejor better nervioso/a anxious, nervous el patio del recreo the school yard, playground la pregunta question



La historia es

matemáticas

No, no

opción

son muy \_\_\_

divertida que el inglés

La literatura es más

a estudiar las

## GCSE Unit 9 SPANISH Knowledge organiser. Topic My studies

que vas a dejar?

instalaciones?

colegio?

(no)?

profesor?

¿Qué estudias ahora, que te

gustaría estudiar en el futuro,

¿Cómo es tu colegio, las

¿Describe tu primer día en tu

matemáticas. ¿Crees que es

una buena idea? ... ¿Por qué

En tu opinión, ¿cuáles son las

¿Qué cambiarías de tu colegio

si tuvieras la oportunidad?

reglas, los edificios, las

Es obligatorio estudiar

características más

importantes de un buen

 or manooc	

el francés

que el francés

en Septiembre

elegir esa

Me encanta dibujo. Voy a

Pienso que las ciencias

La semana pasada

estudiando tecnología

muy

esta opción

hacer

mucho

Si necesitas algo,

con mi profesora

Voy a

Ya

profesor

Va a

Не

Quiero

No sé

interesante

al profesor.

Translation Practice. G - blue F - orange H - Green

l like French

History is **more** fun than English I am going to study maths

Literature is more **fun** that

French I love art. I'm going to

study it in September. No, I don't want to pick

that option I think that science is really useful

I don't believe that I'm

No creo que voy a going to fail

informática

I used to study ICT in en la escuela primaria primary school

Ayer mis deberes Yesterday I did my homework

Last week I spoke with my teacher

I'm going to continue studying technology

If you need anything ask the teacher

I enjoy studying science a

mucho estudiar ciencias

I have already spoken with the teacher

hablado con el It's going to **be** very

interesting

I don't know what to do

have chosen this option

really want to do it a lot

Imperfect Tense (Past, ongoing actions,

descriptions, 'used to' or 'was doing')

Forming the conditional

Always remove the -AR, -

('would like to' tense).

ER, -IR endings first

Future Tense ('will...')

-er and -ir

antipático

tan antipáticos

es .... porque ...

recreo, llegar al colegio a hora ....

Key Questions: Answer the following in your own words. Use these model answers

Ahora en el colegio, estudio unas asignaturas obligatorias. Las asignaturas

obligatorias son las matemáticas, las ciencias y el ingles. También he elegido estudiar

el español, la geografía, la historia, la tecnología, el arte, el dibujo .... La asignatura

que me interesa más es ..... porque .... La asignatura que me molesta/irrita más

Mi colegio es un colegio grande que tiene circa ochocientos alumnos. Está en las

afueras de Swindon en los barrios de Pinehurst y Penhill. Tenemos una biblioteca

chicle, no debes acosar, no tienes que gritar, no deberías comportarse mal... En el

El primer día, estaba un poco nervioso porque me preocupaban los profesores, los

otros alumnos, las clases, .. me preocupaba que los profesores serian estrictos, me

preocupaban los exámenes, me preocupaba que el colegio sería tan inmenso

buena universidad/porque las matemáticas se usan en todos los trabajos

Si, en mi opinión me parece una buena idea porque ... las matemáticas son muy

importantes en el futuro/para un buen trabajo bien pagado/para mi futuro/para ir a una

En mi opinión, un buen profesor es siempre simpático, nunca malhumorado, es de vez

en cuando gracioso, es comprensivo y cariñoso, es siempre alegre y no es nunca

nueva, una cantina acogedora, un patio grande ... En el colegio no debes comer

colegio tienes que comportarse bien, llevar el uniforme, ir al baño solo durante el

-ía, -ías, -ía, -íamos, - íais, -ían

-AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían

All verb groups: -é, -ás, -á, -emos, -éis, -án

-aba, -abas, -aba, -ábamos, - abais, -aban

Remember the conditional ('would') tense endings for -AR, -ER, -IR verbs. They are:

With this tense, do NOT take the verb ending away but ADD it on to the infinitive.

**Key Grammar** 

Si tuviera la oportunidad, cambiaría/me gustaría cambiar las reglas. Me gustaría

cambiar el uniforme porque me parece que es tan feo, me gustaría cambiar las reglas

porque son demasiadas estrictas, me gustaría cambiar unos profesores porque son



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

#### What we are learning this term:

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

#### 6 Key Words for this term

- acabar de 2.
- 4. demostrar actuar 5. las instalaciones
- 3. la ausencia

#### 10.1G El día en el instituto

6. el maquillaje

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

to start, to begin empezar 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 to let. allow dejar 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 to suffer sufrir 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 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 to hit golpear hace falta it is necessary incómodo/a uncomfortable la intimidación bullvina digital smartboard la pizarra mejorar to improve molestar to disturb, to annoy el ocio leisure wall la pared recordar to remember el repaso revision

dirty

to take time, to delay

sucio/a

tardar

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

		è		
	2	٠	S	

blue F – orange H - Green
Irene <b>failed</b> because she studied very little
We don't practise <b>much</b> athletics.
When <b>we change</b> class there are too many people
We don't have enough computers
The school is <b>too</b> far away
There are <b>few</b> possibilities to study it
You have to wear a uniform
We cannot use mobile phones
You <b>must</b> not smoke
I would like to put makeup on to go to school
l am polite and considerate
I hate <b>doing</b> homework a home
There are many differences between the two
The classrooms <b>ought</b> to be bigger
There ought <b>to be</b> more computers
They ought <b>to build</b> a swimming pool
I have <b>finished</b> my studies
They have <b>returned</b> home

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

	Key Grammar	
	Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are:  -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR: -í, -iste, -ió, -imos, -istéis, - ieron
t	Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
	Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father
	Perfect Tense ('have done') Formed with the verb 'haber':	Formed with the verb 'haber': he, has, ha, hemos, habéis, han + past participle: -ar: -ado -er/ir: -ido e.g. He estudiado = I have studied



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

## 11.1F ¿Trabajar o estudiar?

estar harto/a de

considerar

To go To learn Aprendo Voy

To want Quiero

Querer

I want

Quieres

Quiere

You want

Queremos

We want

Quieren

He/she/ it wants

To prepare Preparo

Preparar

I prepare

Preparas

Prepara

He/she/it

prepares

Preparan

You prepare

Preparamos

We prepare

**Key Verbs** 

Dar To give Doy

I give

Das

Da

You give

Damos

We give

He/she/it gives

Talking about options at 16 Discussing choices at 18: work or university?

Talking about different jobs Looking for and applying for jobs

Using a variety of tenses Using 'quisiera'

What we are learning this term:

6 Key Words for this term

porcentaje

a tiempo parcial

el/la alumno/a

el aprendizaje

la asignatura

avanzado/a

el beneficio

aprender

aprobar

buscar

encontrar

esperar

notas

seguir + gerund

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

11.1G ¿Qué voy a hacer?

a tiempo completo full time part time

> apprenticeship to pass subject

pupil

to learn

advanced benefit to look for

la carrera (universitaria),(university) course, career carrera profesional to get, to manage, to achieve

to wait for, to hope, expect

to carry on ...ing

to find

consequir el consejo advice continuar to continue dejar to leave el dinero monev

los estudios studies el examen exam

la experiencia experience feo/a ugly

la experiencia laboral work experience la informática

information technology, IT better, best mejor while

mientras la nota grade, mark, result

la opción option

la oportunidad opportunity quedar to stay el resultado result

sacar buenas / malasto get good / to get bad grades

to show, demonstrate demostrar la desventaja disadvantage

estar obsesionado/a con to be obsessed

with furioso/a furious to earn, to win, to gain ganar la habilidad skill, ability dreadful horroroso/a

to consider

to be fed up with

to imagine imaginar inútil useless mundo world necesitar to need pedir to ask for

worse, worst peor on the other hand por otra parte 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

**Aprendes** You learn Aprende He/she/it learns

Aprenden

a solas

They learn

adecuado/a

aislado/a

al final de

disfrutar

la edad

escoger

esperar

expect

feo/a

el folleto

inquietar

lejos de

mejor

estar a punto de

el/la graduado/a

hacerse miembro

I learn

Aprender

s/he goes Aprendemos Vamos We learn

They go Van They go

acabar de + infinitive to have just

I go

Vas

Va

You go

They want 11.1H ¿Vale la pena ir a la universidad? on one's own

adequate, decent

isolated

at the end of

They prepare

el mundo laboral

ofrecer

olvidarse

la ventaja

Dan They give 11.1H ¿Vale la pena ir a la universidad?

world of work to offer to forget

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 consequir to get, to manage, to achieve el conseio advice deber to owe devolver to give back, to pay back

to enjoy

to choose

to be about to

to wait for, to hope, to

to become a member

to worry, to concern

age

ugly

leaflet

graduate

far from

better, best

la experiencia laboral work experience

pedir prestado poco a poco preocupar concerned recoger la residencia de estudiantes el resultado

to worry, to be

advantage

to borrow

bit by bit

to pick up. to collect student residence result seauir 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





Translation Practice. G -	blue F – orange H - Green	Key Que
Quiero estudiando	I want <b>to carry on</b> studying	¿Qué vas a hacer/estudiar/trabajar c
Quiero más dinero	I want <b>to earn</b> more money	termines en el colegio/ si buenas notas?
que seguir estudiando	<b>I will have to</b> carry on studying	¿Qué son tus planes par futuro? - ¿Cúal es la ven
Si buenas notas, iré a la universidad	If <b>I get</b> good grades I will go to the university	este plan? ¿Qué son las ventajas y
Voy a el instituto	l am going <b>to quit</b> school	desventajas de ir a la universidad?
No que hacer	I don't <b>know</b> what to do	
He que no quiero trabajar	I have <b>decided</b> that I don't want to work	¿Qué trabajo quieres had Por qué te interesa este Qué son las ventajas y
Creo que mejor estudiar	I believe that <b>it will be</b> better to study	desventajas de hacer este trabajo?
Quiero buscar un	l want to find an apprenticeship	¿Cuáles son los aspecto positivos de encontrar ur
La de mi plan es que…	The <b>advantage</b> to my plan is that	trabajo a los dieciocho ai
Hemos otro plan	We have <b>considered</b> another plan	
un titulo universitario	l need a degree	
Mi madre es	My mum is <b>a dentist</b>	
	I will be content when I finish my studies	Forming the preterite (pa
la decision tan pronto como tenga mis resultados	I will make the decision as soon as I have my results	the –AR, -ER, -IR ending first
Espero una casa		Forming the conditional ('would like to' tense).
Se puede de todo lo que hay	You can <b>enjoy</b> everything there is	Always remove the –AR, ER, -IR endings first
dejado de estudiar	She had quit studying	Using the immediate future tense IR + A + INFINITIV

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

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



## GCSE Unit 12 SPANISH Knowledge organiser.

ambicioso/a

anciano/a

**Topic Jobs, Career choices and Ambitions** 

### What we are learning this term: Talking about different jobs

- Looking for and applying for jobs
- Recognising percentages and fractions
- Learning useful phrases
- Using a variety of tenses

## 6 Key Words for this term

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

#### 12.1G Los trabajos

el ama de casa (fem.) housewife el banco bank el/la cajero/a cashier el/la cliente/a customer cook

el cocinero/a 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

a principios de at the beginning of el/la administrativo/a clerk, office worker

12.1F Buscar trabajo

ambitious

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 detail el detalle 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 people la gente el/la hombre / mujer de businessman / business woman negocios el juego game el/la maestro/a primary school teacher older mayor organizado/a organised paciente patient la panadería bakerv 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 hard-working trabajador/a el traductor/a translator el trimestre term la variedad variety

**Key Verbs** Tener Buscar

Vas

Va

You go

s/he goes

Vamos

They go

They go

to move up

lorry driver

customer

airline

to share

account

to design

physical

to function

manager

gardener

to clean

to improve

hairdresser

prospect

project

corner

hairdresser's

boss

rain

farmer

las horas de trabajo flexitime, flexible

training

fixed, permanent

accountant

cashier

flight attendant

ability, capacity

postal worker

Van

To go To look for To have Tengo Voy Busco I have I'm looking for I go

Buscas

Busca

Buscamos

Buscan

He/she/it is looking

We're looking for

They're looking

You're looking for

Hacer -

Hago

Haces

You do

Hacemos

We do

Hacen

They do

I do

to do/make

Hace Encuentra s/he does He/she/it finds

Encontramos We find Encuentran They find

Encontrar

Encuentro

Encuentras

You find

To find

I find

12.1H El trabajo ideal el/la abogado/a lawyer el/la albañil builder, bricklayer

el/la amo/a de casa house

husband/housewife

el/la camionero/a

la compañía aérea

Tienes

Tiene

You have

Tenemos

We have

Tienen

They have

ascender

el/la azafato/a

el/la caiero/a

la capacidad

el/la cartero/a

el/la cliente/a

el/la contable

la formación

el/la gerente

el/la granjero/a

working hours

el/la jardinero/a

flexibles

el/la jefe/jefa

la peluquería

la perspectiva

el provecto

el rincón

el/la peluguero/a

limpiar

la Iluvia

mejorar

funcionar

compartir

la cuenta

diseñar

físico/a

fijo/a

He/she/it has

temporal utilizar

temporary

el viento ya que

to use

12.1H El trabajo ideal

wind as, since



|--|

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

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

de nacer este trabajo:	comanza con el publico.
	Key Grammar
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are:  -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, - ieron -IR: -í, -iste, -ió, -imos, -istéis, - ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father
Conditional Perfect Tense (the 2 tenses put together) "I would have bought"	habría, habrías, habría, habríamos, habríais, habrían <b>+ past participle</b> E.g. lo habría comprado pero no tenía tiempo —I would have bought it but I didn't have time

# 9. Customer Needs For a business to be successful, it must understand what

Why?

customers need. There are six main areas to consider.

Area of

	Consideration	,.
	Price	For most consumers, most of the time, price is a crucial factor when considering purchasing a product. Pricing a product too high will put consumers off, pricing a product too low may lead the consumers to question the quality of the product and look to competitors.
	Quality	Consumers will always consider the quality of a product when purchasing it. Products that lack quality and durability may be rejected by consumers for more reliable products
•	Choice	Consumers love choice, even though it can sometimes be hard to make decisions in the face of 'too much' choice.
	Convenience	Consumers want easy access and to not travel to far. Businesses will need a full range of stock, short ques at checkouts and a clearly laid out store/website to give the customers a convenient experience.
	Being efficient and reliable	Customers expect consistently good value for their own time and good customer service.  Consumers expect high standards to meet every time they use the goods/services provided.
	Providing great design	Many customers value design and style above price. They want clothes that make them look and feel great, cosmetics that make them look older – or younger – and cars that make them feel successful. Product design can be one way that businesses meet the needs of their

customers.

10. Customer Needs	
Term	Definition
Choice	Giving customers options and increasing the chance that the product will be perfect for the tastes/habits of one type of customer.
Convenience	Making life easier for customers, perhaps by a great location or a product that saves time in preparation or consumption.
Identifying Customers	Finding out who they are: their age, gender, incomes, where they live and what they want
Quality	to a customer quality means getting what they want at a good standard of manufacture or perhaps better than expected; some companies use the term 'customer delight'.
Understanding Customers	Learning why customers do what they do, making it easier to see how to make a product that better suits them.

## 11. Market Research

Area

## There are four main areas where market research can prove useful:

To identify and understand	For any Business, understanding the needs of customers is important.
customer needs	Employing market research to finds is well worth the time of a business
To identify gaps in the market	Market research along with market maps show which customer
	requirements are covered and which are not.
	Market research reduces risk in two ways:
To reduce risks	Market research clarifies whether there is demand for a product
	Whether the market needs new products

Why?

9. Customer Needs				
For a business to be successful, it must understand what				
	ed. There are six main areas to consider.			
Area of Consideration	Why?			
Price				
Price				
Quality				
Choice				
Convenience				
Being				
efficient and reliable				
reliable				
Providing				
great design				

10. Custo	omer Needs
Term	Definition
Choice	
Convenience	
Identifying Customers	
Quality	
Understanding Customers	

11. Market Research				
There are four main areas where market research can prove useful:				
Area	Why?			
To identify and understand customer needs				
To identify gaps in the market				
To reduce risks				

12. Market Research – Methods of Research	
Term	Definition
Focus Group	A group discussion among people selected from the
	target market; it draws on psychology to provide
	qualitative insights into consumer attitudes
Primary Research	Research conducted first-hand; it is tailored to a
	company's specific need, for example a quantitative
	sales estimate for a brand-new chocolate bar.
Qualitative Data	In depth research into the opinions and views of a small
	group of potential or actual customers; it is non-
	numerical and can provide useful insight into why
	consumers buy what they buy.
Quantitative Data	Factual and numerical research to provide statistically
	reliable results, for example a survey of 500 people aged
	15-24 years.
Secondary Research	When a company uses research that has already been
	carried out by another organisation.

13. Market Segmentation – How is the market segmented	
Ways the market is segmented	Explanation
Location	Customers located in the same area will share tastes and
	habits. The menu for McDonalds is different in every
	country considering national tastes
Income	Customers with different incomes will have different tastes
	and desires. Customers with high incomes are more likely
	to purchase more luxury items
Lifestyle	Whether rich or poor, young or old some people are simply
	different. Different lifestyles manifest different needs.
Age	People of different ages have different preferences and
	different desires.
Demographic Factors	Demographics are the characteristics of a population –
	different parts of a population have different needs e.g.
	gender, race and religion etc.

14. Market Mapping (Key Terms)	
Term	Definition
Competition	Rival businesses operating in your market or market sector.
Gap in the market	An area on a market map where few or no existing brands operate, implying a business opportunity to fill an unmet consumer need
Market Map	Measuring where existing brands sit on a two-factor grid, for example young/old compared with high price/low price.

15.Why Map a Market?	
Why?	Explanation
Helps you find a gap	A market map can help a potential
in the market	entrepreneur find an area within a market to
	exploit
Helps you find	A market map can help a potential
where you	entrepreneur see where competitors are
competitors are	positioned within a market and furthermore
placed with a	ensure their own product is sufficiently
market	unique.

16. The Competitive Environment
Why is competition good for markets?
Firms will need to provide good products and good services
Keeps prices competitive.
The market will provide more innovative products or services to break
away from fierce competition from other firms

Term	Definition
Focus Group	
Primary Research	
Qualitative Data	
Quantitative Data	
Secondary Research	

13. Market Segmentation – How is the market segmented	
Ways the market is segmented	Explanation
Location	
Income	
Lifestyle	
Age	
Demographic Factors	

14. Market Mapping (Key Terms)	
Term	Definition
Competition	
Gap in the market	
Market Map	

15.Why Map	a Market?
Why?	Explanation
Helps you find a gap in the market	
Helps you find where you competitors are placed with a market	

16. The Competitive Environment
Why is competition good for markets?

# 8. Making Marketing Decisions

1. Product (Part of the Marketing Mix)	
When designing a new product, the key is to design a product that matches the needs or wants of your chosen target market.	
Every product need	s the right balance between:
Product strategy	Explanation
Economic Manufacture	Making sure that the design of the product to be made cost effectively. A complex or expensive design can lead to increased costs.
Function	The design of the product is crucial. The product must work/function effectively
Aesthetics	How much does the design of the product appeal to the senses. When designing a <u>product</u> it is crucial to consider the way it looks

Idea:	Explanation
Find new uses for the product	If a product can be used for multiple purposes, ensure that your target audience is aware of this
Change the appearance, format or packaging	Changing the appearance of a product can give it a new lease of life and allow the customer is perceive it as new again.
Encourage use of the product on more occasions	If a product can be used for multiples different occasions make sure the customer base is aware of this
Adapt the Product	Continue to make small adaptations to products to improve the quality of the product on offer.

2. Product (Key Terms)		
At the heart of the marketing mix is the product		
Term:	Definition:	
Product Differentiation	The extent to which consumers see your product as being different from its rivals	
Product Life Cycle	The theory that every product goes through the same four stages of introduction, growth, maturity and design	



3. Stages of the Product Life Cycle		
Term:	Explanation:	
Introduction	First a company needs to spend time researching the product and the marketplace. The product will be developed, tested, and launched.	
Growth	At this stage the product becomes known in the market. At this stage customer awareness increases, prices will still be high.	
Maturity	At this point the market may become saturated as 'me too' products are launched into the market. Advertising is increasing to remind consumers about the quality of the product. Brand image needs reinforcing with its customers. The market is highly competitive, and prices are lower as a result	
Decline	The product's sales and profit's start to fall. The product is no longing offering what customers want or new technology has made the product obsolete.	

# 8. Making Marketing Decisions

1. Product (Part of the Marketing Mix)		
When designing a new product, the key is to design a product that matches the needs or wants of your chosen target market.		
Every product needs t	the right balance between:	
Product strategy	Explanation	
Economic		
Manufacture		
Function		
Aesthetics		

4. Ways to extend the Product Life Cycle of a Product	
Idea:	Explanation
Find new uses for the product	
Change the appearance, format or packaging	
Encourage use of the product on more occasions	
Adapt the Product	

2. Product (Key Terms)		
At the heart of the marketing mix is the product		
Term:	Definition:	
Product Differentiation		
Product Life Cycle		



3. Stages of the Product Life Cycle		
Term:	Explanation:	
Introduction		
Growth		
Maturity		
Decline		

5. Promotional Strategy (Part of the marketing mix)		
Promotional strategy is the plan for how to communicate effectively with customers in order to meet sales revenue targets.		
Promotional Strategy:	Explanation:	
Advertising	Advertising is how a business promotes its products and communicates with its customers.	
Sponsorship	Sponsorship is where a business pays to have a brand or company name attached to an activity that has credibility with its customers.	
Branding	Branding is a way that businesses can give their products an identity that appeals to its target audience.	
Product Trials	A product trial means giving potential customers a free taste of a new product. This may entice new customers.	
Special Offers	Businesses can use special offers such as 'buy one get one free' to entice customers to purchase their products.	
Using Technology	In recent years, online advertising through social media and other platform such as websites and e-newsletters has become commonplace for firms.	

6. Pricing Strategy			
Pricing strategy is	Pricing strategy is vital for any business – pricing your products can be the difference between business success and business failure.		
Market Se	egment:	Pricing Strategy	
Mass Market		In mass markets where both competition and customer consumption are high. These markets are generally characterised by low prices and very similar products.	
Niche Markets		A niche market is based on a type of customer needs or wants something different to the majority. <u>Generally</u> these markets have few competitors but high prices.	
Pricing at each stage of the Product Life Cycle			
Introduction	Pricing at the	Pricing at the introduction phase of the product life cycle in some cases will be low to entice new customers to sample the product.	
Growth	Once a produ	Once a product is established within a market and has a customer base, businesses will sometimes increase prices to increase revenue.	
Maturity		When product growth is at an end, new pricing decisions may be needed. Business will ensure that pricing is competitive to ensure continuous revenue, other firms may decide that the brand may be in irreversible decline and will keep prices high to make a short-term profit.	
Decline		When sales have made a decisive step downwards, firms tend to lower prices to ensure a steady stream of revenue. <u>However</u> some firms with a loyal customer base may decide to increase prices in an attempt to gain short term profits.	

5. Promotional Strategy (Part of the marketing mix)		
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Promotional S	trategy:	Explanation:
Advertising		
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Branding		
Product Trials		
Special Offers		
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Market Segment:		Pricing Strategy
Mass Market		
Niche Markets		
Pricing at each stage of the Product Life Cycle		
Introduction		
Growth		
Maturity		
Decline		

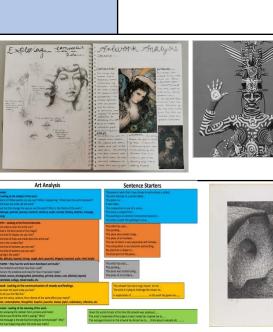
7. Placing Strategy			
This element of the marketing mix is about how to get the product from the producer to the customer. There are three main distribution channels - traditional,			
modern and direct	Ł.		
Type of Dist	tribution	Explanation:	
Direct Distribution		This is where a product is distributed directly from the producer to the consumers. An example of this is buying things directly from firms on	
		the internet.	
Modern Distribution		This method is common in the grocery sector, where producers will deliver to distribution depots and then the products will be taken to	
		stores to be sold. This method became popular when supermarkets become common place in the 1980s	
Traditional Distribution		This method, in the first instance involves a wholesaler buying goods directly from the consumers. From the wholesaler will sell the	
		products directly to firms who will then sell onto the consumers.	
8. Placing Strategy – Key Terms			
Term	Definition	Definition	
Distribution	How owners	How ownership changes as a product goes from producer to customer	
E-Tailer	An electronic	An electronic retailer; in other words selling products electronically, either by e-commerce or, more likely these days, mobile commerce.	
Retailer	A shop or chain of shops, usually selling from a building in a high street or shopping centre		

9. Marketing mix and Business Decisions – Key Terms		
Business decisions are always about the future. So, when the marketing mix is being used to inform and carry out business decisions.		
Term	Definition	
Budget	A ceiling on the amount of money that can be spent; a marketing budget of £1 million means the marketing manager can spend up to that figure, but no more.	
Informed Decisions	Evidence that can be used to make a better decision; a company can gain a better understanding of <u>it's</u> customers through the 4p's, which helps in decision making	

7. Placing Strategy		
	marketing n	nix is about how to get the product from the producer to the customer. There are three main distribution channels – traditional,
modern and direct.		
Type of Distribution		Explanation:
Direct Distribution		
Modern Distribution		
Traditional Distributio	n	
8. Placing Strateg	y – Key Te	rms
Term	Definition	
Distribution		
E-Tailer		
Retailer		
9. Marketing mix and Business Decisions – Key Terms		
Business decisions are always about the future. So, when the marketing mix is being used to inform and carry out business decisions.		
Term	Def	inition
Budget		
Informed Decisions		

# Year 11 Term 2 : Topic = Personal project

# G. Assessment objectives A01, A02 How you are assessed A01 Assessment Objective 1 Assessment Objectives: AO1 Is about developing ideas from a Each component is marked based on 4 assessment objectives: You will be assessed on how effectively you meet the criteria set out in starting point through to a final outcome. This is achieved by each objective. responding in sketch format by taking inspiration from a variety of artists. A02 Assessment Objective 2 6 Key Words for this term AO2 is about refining your ideas through the selection of appropriate Observe 4 context media, materials, techniques and Develop 5 inspiration processes, and should be linked to the artists you have studied. You should Critical understanding 6 juxtaposition be annotating your work showing clearly these connections A. What three techniques will you develop next in your project? Anlwork Analysis







G	Have you explored the	following tool	hniauos
	Charlesolle	(Augsteen)	H S SHEET

Drawing	
Etching	

Sculpture

Photography

G. Assessment objectives A03, A04 A03 Assessment Objective 3 A03 is about recording your ideas, observations and insights. These can be visual shown through your use of materials, media and processes. As well as the way you develop your ideas, skills and techniques with written annotation. A04 Assessment Objective 4 A04 is about presenting a personal, informed and meaningful response, from your initial research through to your final piece. This should be visible through suitable source material and media, the connections you

# Kev auestions

made to your chosen artist and your

ability to select appropriate media. You

work should be seen as a visual 'journey' from your starting point through to your final piece, that demonstrates your understanding of your particular area of

If you are looking at an image and don't know how to respond to it break it down into its individual parts.

study.

What colour is it? - could you make a response just looking at its colour or shape?

How does it make you feel? Could that trigger an instinctive/ expressive response

Could you respond to the shape or texture?

Could you delve deeper into the social or historical context of the piece of artwork?

Your key areas of focus should be on figuring out how you can turn your piece of artwork into something else. Your GCSE is a series of developments and experiments leading up to your exam







## Year 11 PRODUCT DESIGN Term 2



### What we are learning this term:

One-Point Perspective

B. Two-point Perspective

C. Isometric Drawing

D. Exploded Drawing

E. Oblique Drawing

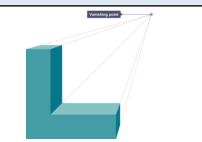
F. CAD G. Orthographic Drawing

# Design Strategies Introduction.

Design strategies are used to create technical drawings, to show an object in 3D on a 2D page. Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

# **One-point Perspective Drawing**

Single-point perspective shows an object from the front in a realistic way. The front view goes back towards a vanishing point on the horizon.



Commonly used by interior designers to a show a view into a room.

Two-point perspective shows an object from the

side with two vanishing points. It gives the most

realistic view of a product as it shows the item edge on, as we would see it. It is often used to

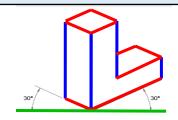
produce realistic drawings of an object.

Horizon

Vanishing point

# **Isometric Technical Drawing**

Made up of a series of parallel vertical lines and parallel 30-degree lines. But no horizontal lines.



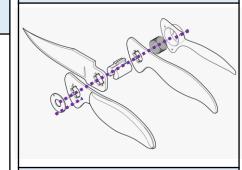
Used by architects and engineers to communicate their ideas to the client and manufacturer.

# **Two-point Perspective Drawing**

Vanishing point

**Exploded Technical Drawing** 

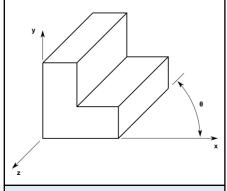
Exploded technical drawing is an Isometric drawing of all the parts and components of an object.



All parts are shown separately so you can see all aspects. Dashed lines indicate where everything goes and in what order.

#### E. **Oblique Technical Drawing**

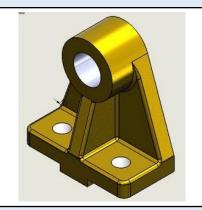
Consists of an object where the front view is drawn flat with height and width of the object draw to the correct lengths. Diagonal lines are drawn at 45-degrees.



Commonly used by engineers for drafting ideas.

## **CAD (Computer Aided Design)**

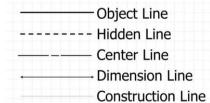
This is designing using a computer using a software such as 2D Design or Solidworks.



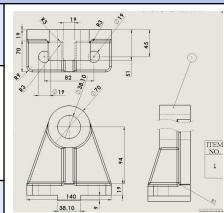
Commonly used to model, test and develop an idea before manufacture.

#### Orthographic Projection - 2D NOT 3D Drawing Strategy! G.

This shows 2D views of a 3D object from different angles - front, plan and end. Lines are dimensions have specific meaning to avoid confusion.



Commonly used in industry to help the manufacturer understand the design.



# Commonly used by architects to show realistic building ideas.



B.

Vanishing point

building ideas.

# Year 11 PRODUCT DESIGN Term 2



## What we are learning this term:

One-Point Perspective

B. Two-point Perspective

F. CAD

C.

C. Isometric Drawing

D. Exploded Drawing E. Oblique Drawing

Vanishing point

G. Orthographic Drawing

# Design Strategies Introduction.

E.

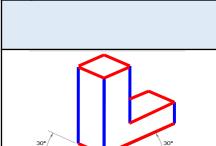
Design strategies are used to create technical drawings, to show an object in 3D on a 2D page. Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

# **One-point Perspective Drawing**

Commonly used by interior designers to a show a view into a room.

**Two-point Perspective Drawing** 

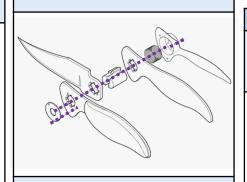
Commonly used by architects to show realistic



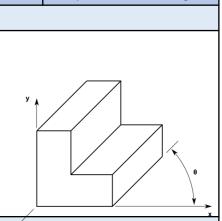
**Isometric Technical Drawing** 

Used by architects and engineers to communicate their ideas to the client and manufacturer.

#### D. **Exploded Technical Drawing**



All parts are shown separately so you can see all aspects. Dashed lines indicate where everything goes and in what order.



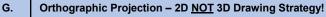
**Oblique Technical Drawing** 

Commonly used by engineers for drafting

# **CAD** (Computer Aided Design)

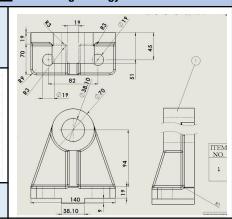


Commonly used to model, test and develop an idea before manufacture.



Object Line Hidden Line Center Line Dimension Line Construction Line

Commonly used in industry to help the manufacturer understand the design.





# Year 11 Food & Nutrition Term 2



# What we are learning this term:

A. Healthy Eating Guidelines

B. Nutritional Needs of Different Age Groups

C. Energy Needs and Portion Sizes

D. Diet-Related Health Problems

A.	A. Healthy Eating Guidelines				
		<b>5 portions</b> of <b>fruit</b> and <b>vegetables</b> a day – making up <b>1/3</b> of daily food intake			
		Using <b>unsaturated oils</b> and <b>spreads</b> , and <b>not often</b>			
		Protein: lean cuts and unprocessed meat best, plus 2 portions of fish per week (1 oily)			
		Having some <b>dairy</b> or <b>alternatives</b> and trying <b>lower fat</b> options			
		1/3 of daily food intake being starchy carbs. Go for higher fibre/wholegrain options			
		6-8 glasses of fluids a day (but no more than 1 being fruit juice)			
		Eat <b>less sugary</b> , <b>salty</b> and <b>fatty</b> foods.			
		Diet Belete d Health Broklama			

		Hutifullial Needs of Billerent Age Groups
	Children & Teens	g
	Adults	Stop growing and nutritional needs don't vary much     Should focus on maintaining a balanced and healthy diet
	Elderly Adults	Muscle decreases and exercising is harder – diet may change     Taste and smell changing can affect the enjoyment of food
	Other Factors	Males usually bigger/taller = more daily kcal needed     Iron is lost during menstruation = higher iron     requirements     Bone density can be lost after the menopause =     important to get lots of calcium and Vitamin D

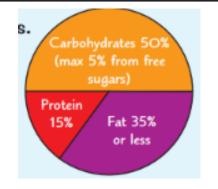
Towards the end of pregnancy, the body needs 200 more kcal per day to support baby's growth
 Active humans will need more kcal and protein

Nutritional Needs of Different Age Groups

	C.	C. Energy Needs & Portion Sizes					
	BMR	Basel Metabolic Rate is the amount of energy needed to live e.g. breathing. It's affected by many factors; age, sex, weight, exercise					
	PAL	Physical Activity Level measures how active you are. A higher PAL means more active.					
	I	Daily energy requirement (kcal) = BMR x PAL					
	To mai balanc	intain a healthy weight, energy intake must be ed:					
	Energy in > energy out = weight gain Energy in < energy out = weight loss  Portion size: prepare the right amount e.g.						
	1 meat portion 1 veg portion = size of fist  Use scoops, dividers &						
ocutters to portion meals							

D.	Diet-Related I	t-Related Health Problems		
		Example of cause	Health Problems	
Obesity		Eating lots of sugary and fatty foods	High blood pressure and cholesterol	
Coronary Heart Disease		Eating lots of saturated fats	Blood clots and heart attacks	
Anaemia		Not eating enough iron-rich food	Tiredness, heart palpitations	
Type 2 Diabetes		Being overweight or obese / too much sugar	Kidney failure, poor eyesight	
Rickets (children)		Not enough Vitamin D or Calcium	Soft bones may lead to lowed legs	
Osteoporosis (old age)		Malnutrition and not enough Calcium	Loss of bone density, brittle bones break easily	
Tooth Decay		Plaque build-up from eating too many sugary foods	Fillers, loss of teeth	

# Recommended ratio for energy sources:





# Year 11 Food & Nutrition Term 2



What we are learning this t	term:
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A. Healthy Eating Guidelines

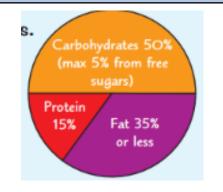
B. Nutritional Needs of Different Age Groups

C. Energy Needs and Portion Sizes

D. Diet-Related Health Problems

, ,	3 1 3	
A. Healthy Eating Guidelines	B. Nutritional Needs of Different Age Groups	C. Energy Needs & Portion Sizes
	Children & Teens	BMR
		PAL
00	Adults	Daily energy requirement (kcal) = BMR x PAL
	90	To maintain a healthy weight, energy intake must be balanced:
	Elderly Adults	Energy in > energy out = weight gain Energy in < energy out = weight loss
م المالكة		Portion size: prepare the right amount e.g.
	Other Factors	1 meat portion 1 veg portion = size of fist
		Use scoops, dividers &
		ocutters to portion meals
D. Diet-Related Health Problems		Recommended ratio for energy sources:

D.	Diet-Related I	Health Problems		
		Example of cause	Health Problems	
Obesity		Eating lots of sugary and fatty foods	High blood pressure and cholesterol	
Coronary Heart Disease		Eating lots of saturated fats	Blood clots and heart attacks	
Anaemia		Not eating enough iron-rich food	Tiredness, heart palpitations	
Type 2 Diabetes		Being overweight or obese / too much sugar	Kidney failure, poor eyesight	
Rickets (children) Osteoporosis (old age)		Not enough Vitamin D or Calcium	Soft bones may lead to lowed legs	
		Malnutrition and not enough Calcium	Loss of bone density, brittle bones break easily	
Tooth Decay		Plaque build-up from eating too many sugary foods	Fillers, loss of teeth	





# Year 11 Engineering Term 2



# Understanding the effects of engineering achievements

#### Types of engineering developments

**Structural design** – the development of components designed to resist or apply **forces**, for example the frame of a bicycle

**Developments include** – the use of frames, triangulation and shell structures, the use of CAD to test the structural integrity of a product before manufacture.

**Mechanical design –** the development of components designed to perform a physical function..

**Developments include** - Suspension systems, gears and pulleys, chain drives, the use of mechanical advantage.

**Electronic design** – The development and use of electronic components within products.

**Developments include** – smart home devices with connectivity to user's mobile phones, touch screen controls, miniaturization of transistors (smaller and more powerful circuits).

#### Effects of engineering developments

Frame and shell structures: The introduction of cheap and strong materials led to high-rise buildings, fast construction methods and a broad range of shell-frame products (cars, airplanes).

#### Development of new materials:

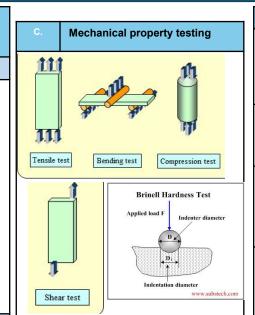
- Some give improved strength and reduced weight
- Smart materials and new alloys increase the diversity of products that can be designed
- Complex synthetic materials are difficult or impossible to recycle

#### Smart technology:

- Smart home products in the home leads to designers focusing on linking more products to Bluetooth/wifi
- Smart tech can improve quality of living in a variety of ways
- Smart tech can be difficult to repair and become obsolete quickly

#### **Electronic components:**

- Miniaturization of circuits makes for smaller and faster products with increased data storage, making them more efficient and reliable
- The minerals used in complex circuits are finite and difficult to mine, leading to land destruction and pollution. These products are also hard to recycle



#### To conduct a fair test, you need to:

- Have a clear question that can be answered through experiment
- Change only one variable at a time and keep all other conditions the same
- Repeat the experiment multiple times to avoid basing your conclusion on too few events
- 4. Use an **objective measurement system** that others can use in the same way
- Avoid bias and consider the possibility of chance differences

#### Explain using notes and sketches questions:

- Must have two or more drawings
- 2. Drawings must be annotated
- Drawings and annotations must give a reasonable answer to the question in the setting they ask for i.e workshop tools used for a workshop process

# D. Use of calculations in engineering



Ohms law is used to calculate resistance, current and voltage.

Voltage = Resistance x current
Resistance = voltage / current
Current = voltage / resistance



When using mechanisms (levers, pulleys, gears etc) you can calculate the mechanical advantage using the formula:

Mechanical advantage = load / effort



Calculating the area of a variety of common shapes:

Quadrilateral - Base x height Triangle - (base x height) / 2 Circle - $A=\pi r^2$ 

To calculate the volume of a prism, calculate the area of a face and multiply by the depth of the prism.

(1:2) (real size: image) Using scale factors when reading or producing working drawings:

Scales are shown as ratios, and calculated as fractions i.e a scale of 1:2 is the same as the drawing being ½ size.

E.	How	environmental issues affect engineering		
Materials development		More emphasis on developing sustainable materials and recycling technology has had a positive impact on the engineering industry, for example the use of starch-based polymers.		
Costs		Manufacturing can be made more efficient to reduce overall costs of production. However, some raw material costs are still volatile due to oil and ore scarcity.		
Transportation		Transport is needed at each stage of the life cycle of the product and produces emissions: raw material extraction => manufacture = warehousing => retail => customer use => customer disposal => landfill		
Usage		Are customers able to easily repair or maintain the product after it is purchased or does it have planned obsolescence?		
Disposal		How do different countries dispose of products? Are there policies in place to ensure recycling?		
Sustainability		What design features have been included in the product or its functions to reduce the impact of each stage of the product life cycle? Are the raw materials used renewable? How efficient is the manufacturing process with these materials?		



# Year 11 Engineering Term 2

# Understanding the effects of engineering achievements

#### Types of engineering developments

**Structural design –** the development of components designed to for example

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#### Effects of engineering developments

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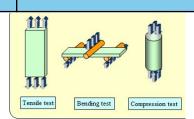
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# C. Mechanical property testing



Describe, using notes and sketches, a test that could be conducted in the workshop to measure the ability of a ruler to tension. (include at least two drawings, annotations, and an explanation of the process and how it is recorded).

[6]

# Use of calculations in engineering



- 1. What is the current in a circuit with a voltage of 9 V and a resistance of 3  $\Omega$ ?
- 2. If the resistance in a circuit is halved, what will happen to the current?
- 3. What is the resistance of a resistor in a circuit with a voltage of 12 V and a current of 0.5 A?



What is the mechanical advantage of the two pulley systems on the left? Think about how many anchor points there are.

2.



What is the volume of the shape on the left?

What would the volume be if there were a 6mm diameter hole drilled through this shape?

(1:2) (real size: image) 1. A map has a scale 1:125,000. The distance between two points on the map is 3.8 cm. What is the real distance in kilometres?

	How	v environmental issues affect engineering		
Materials development		Name three modern materials that are sustainable and why.		
Costs		Name three sustainable cost saving measures a company could take:		
Transportation		What are the stages of a product life cycle that require transport?		
Usage		Planned obsolescence is – The opposite of this is -		
Disposal		What are the disposal options for a modern bicycle?		
Sustainability		Name two modern sustainable materials and two finite resources:  Describe a product that uses all four materials:		

# Toto: Africa

## Soft rock



#### Form and structure:

The piece is in strophic or verse-chorus form.

	Intro	Verse 1 / Verse 2	Chorus 1 / Chorus 2	Link 1 / Link 2	Instrumental	Chorus 3	Outro
l	1 – 4	1 - 4 5 - 39 / 14 - 39		58 - 65	66 - 82	40 - 92	93 - 96
	4 bars	4 bars 35 bars / 26 bars		8 bars	17 bars	22 bars	4 bars

# Metre and rhythm:

**Simple duple time** – 2/2 (split common time) – with two minim beats in every bar.

Uses distinctive **ostinato rhythms** for both riffs, consisting almost totally of **quavers**, with constant use of **syncopation**.

**Vocal rhythm** looks complex but follows the natural rhythm of the lyrics.

# **Background details:**

Composed by band members **David Paich** and **Jeff Porcaro**.

Recorded by the American rock band Toto in **1981** for their fourth studio album entitled **Toto IV**.

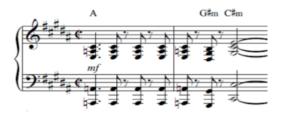
Released in **1982** and reached number one in America on 5 February **1983**.

Genre: soft rock.

# Harmony:

**Diatonic**; mixture of root position and inverted chords.

**Riff a** can be heard during the intro, verses, link sections, instrumental and outro. This riff uses a three-chord pattern:  $A - G^{o}m - C^{o}m$ .



Choruses use a standard chord pattern: vi (F\*m) – IV (D) – I (A) – V (E).

The **harmonic rhythm** (the rate of chord change) is mostly once per bar.

#### Instrumentation:

**Rock band**: drum kit with additional percussion, lead and bass guitars, synthesisers, male lead vocals and male backing vocals.

#### Dynamics:

Most of the song is **mezzo-forte** (moderately loud) whilst the choruses are **forte**.

#### Melody:

Mostly **conjunct** (moving in step) with a **wide vocal** range.

**Riff b** uses the **pentatonic scale** (interpreted through E major):



Vocal improvisations occur towards the end of the song.

#### Texture:

Homophonic: melody and accompaniment.

# Tonality:

The majority of the song is in **B major** whilst the choruses are all in **A major**.

#### Tempo:

The tempo is moderately fast.

Question	Answer	Question	Answer
Identify the time signature of the piece	4/4 3/4 2/2 2/4	Give the year the piece was recorded	
Identify the tempo for this piece		What type of ensemble performs this piece?	
Underline the style of music for this piece	Rock/Soft Rock	<b>Identify</b> and <b>underline</b> the riff below:	Riff A
	Нір Нор		Riff B
	Soul	( & # a # a a a a a a a a a a a a a a a a	
	Pop		
Underline the tonality/Key used in the verses	B Major	List 4 instruments in this piece	
	A Major		
	A Minor		
	B Minor		
Underline which rhythmic device is used for Riffs A and B	Sequence	List the sections of the piece where Riff A can be heard	
niiis A dilu b	Imitation	niii A cali be liealu	
	Ostinato		
Give the tonality/Key of the chorus		Identify the texture of the piece	
Identify the dynamics used in the verses			
Give the names of the band members who composed this piece.		State the dynamics that are used in the chorus	

# Year 11 BTEC Health and Social Care- Component 2: Health and Social Care Services and Values.

Year 11 BTEC Health and Social Care- <u>Component 2</u> : Health and Social Care Services and Values.						
What we are learn	ing:	B What are	the different types of health care services?	C.	What are the different types of social care	
A. Key words B. What are the different types of health care services? C. What are the different types of social care services? D. What barriers are there to accessing care services?		Primary Care	patient is likely to have with the NHS – you can refer yourself to primary care providers.		Children and young people may need support on a temporary or permanen	
A. Key words fo	ords for this Unit		Primary care providers include pharmacists, Registered GPs/doctors, walk-in centres, accident and emergency	people	ill; they have family problems, they	
Primary care	First point of contact when seeking health care		departments (A&E), dentists and Opticians.		have behavioural issues or additional needs.  Types of support for children and young people include foster care, residential care and youth work.	
NHS	National Health Service – Tax funded health care in the UK.	Secondary Care	Secondary care is specialist treatment or care. A primary care provider will refer a patient for secondary care if they feel it is			
Secondary care	Specialist health treatment and/or care		necessary for the patient to receive further advice, tests or treatment.  • Secondary care providers include	Children adults wir	with support with specific needs including	
Tertiary care	Advanced specialist health treatment and/or care.		cardiologists (heart), gynaecologists (female reproduction), paediatrics (children), obstetrics (childbirth and		impairments and long-term health issues.  Types of support for children and	
Allied health professionals	Professionals who are involved in patient care from diagnosis to recover	Tarkiana Cara	midwifery), psychiatry (mental health) and dermatology (skin).		adults with specific needs include residential care, respite care and domiciliary care.	
Clinical support staff	Support allied health professionals with the treatment and care of patients.	Tertiary Care     Tertiary Care is advanced specialist treatment or care. A secondary care provider will refer a patient for tertiary care for long-term treatment and/or care.  Tertiary Care is advanced specialist		Older Adults	Older adults may need support with a range needs including arthritis, cardiovascular disease, dementia and	
Foster care	A stable family home where care is provided on either a short or long-term basis.		<ul> <li>Tertiary care areas include spinal, cardiac (heart), cancer care, chronic pain, burns and neonatal (premature and ill new born babies).</li> </ul>		<ul> <li>depression.</li> <li>Types of support for older adults include residential care, carers and personal assistants.</li> </ul>	
Residential care	Accommodation and care for a number of children, young people or adults living together in one building.	Allied Health Professionals	' ' " " " " " " " " " " " " " " " " " "		Not all carers get paid for what they do – they are known as informal carers and social services would really struggle without them.	
Respite care	Short-term care which provides relief for family member who are carers.				Informal carers include a spouse or partner, children, friends and neighbours. Informal carers do practical	
Domiciliary care	Care received in the person's own home.		physiotherapists, speech and language therapists and radiographers.		household duties, shopping, laundry, walk the dog and help with personal	
Sensory impairment	Difficulties with senses, most commonly vision and hearing.	Clinical Support Staff  Clinical support staff work within a range of departments under the guidance of allied health professionals. They are trained in their roles but are not required to register with the HCPC.			care.	
Braille	Raised lettering to help visually impaired.				$\bigcirc$	
Occupational therapist	Offers support to develop independence for daily living activities.		Clinical support staff include theatre support workers, prosthetic technicians, dietetic assistant, phlebotomist (collects blood samples), hearing aid dispensers			

and maternity support workers.

# D. What barriers are there to accessing care services? **Physical Barriers** Difficulty accessing care due to mobility and/or disability. Obstacles include uneven and rough pavements and services, narrow doorways, no lift and transport. Access could be improved by planning journeys in advance and reporting any problems to the council. **Sensory Barriers** Sensory impairments can be a barrier to accessing care. · A person with poor vision may need glasses or documents in large print. Profound sight problems may benefit from Braille. • A person with a hearing impairment may benefit from a hearing aid or sign language interpreter. Social, Cultural and Social, cultural and psychological barriers may leave people feeling nervous about accessing support. **Psychological** These can include: religion/cultural barriers, negative experience, self-diagnosis, substance misuse, opening hours. • Care services can give individuals opportunities to share their concerns, offer different gender practitioners, facilities to **Barriers** worship and show respect and understanding. **Language Barriers** • Language can be a barrier to accessing care services because individuals and care providers may struggle to understand each other. Support for individuals could include translated documents, translators and interpreters and support from family members. Geographical Individuals may struggle to reach care services because public transport may not run regularly, specialist treatments may require long distance travel and travel can be expensive. **Barriers** Support could include being provided with direct travel or having travel costs reimbursed. • If an individual has a learning disability is can cause difficulty in them accessing care services. **Intellectual Barriers** Support might include a learning disability nurse, speech and language therapist or occupational therapist. **Resource Barriers** • As the population ages and more disorders are being successfully treated, there is a huge strain on health and social care resources – at times it might seem that not everyone can access what they need. • There are huge staff shortages which puts strain on people that work in the health and social care sector. **Financial Barriers** Seeing a GP or using emergency services are free but some services, such as optical and dental care, often involve some payment. This can be difficult for people if they are from a low-income household as they may not feel they can afford to access the care they need.

# Year 11 BTEC Health and Social Care- Component 2: Health and Social Care Services and Values.

# What we are learning: Define the key words What are the care values and how can they be implemented? E. Define the key words Self-respect Valuing yourself Person centred Planning care around the wants and needs of a service user approach **Empowerment** Supporting people to take control of their lives and futures by involving them decisions on their care and treatment Confidentiality Not passing on information or discussing a private conversation to anyone Dignity Being respected and treated with care Safeguarding Policies to ensure children and vulnerable adults are protected from harm, abuse and neglect Discrimination Treating a person or group of people unfairly or less well than others Compassionate Feeling or showing sympathy and concern for others Competence The ability to do something successfully and efficiently Consequences A result or effect, typically one that is unwelcome or unpleasant Review Involves assessing or inspecting something with the intention of making change if necessary Being able to understand and Empathy share feelings and views of another person.

Difficulties in sleeping

Insomnia

F.	What a	are the care values and how can they be implemented?			
Empowering and promoting independence		<ul> <li>Empowerment is when an individual feels in control of their own life and have a say in what happens to them.</li> <li>Some people might need help with empowerment because of their age, circumstances or confidence e.g. elderly people, children, adult with learning disabilities.</li> <li>You can promote empowerment and independence by involving individuals, where possible, in making choices about their treatment.</li> </ul>			
Respect for others		<ul> <li>You can show respect for the individual by respecting their privacy, needs, beliefs and identity.</li> <li>Show respect by being patient when someone takes longer to perform simple tasks due to their age, disability or injury.</li> <li>Do not leave personal files around for others to see or discuss your patients' case with friends.</li> <li>Gain permission before entering a room, provide private place for personal conversations.</li> </ul>			
Maintaining confidentiality		<ul> <li>It is a person's right by law to have information about them kept confidential.</li> <li>Care workers and not allowed to talk about one service user to another, or someone who is not involved in helping them get better. This involves not having those private conversations in public places where other can overhear.</li> <li>Paper and electronic files are to be kept confidential and only shared with care workers which are involved in the treatment of the patient.</li> </ul>			
Preserving dignity		<ul> <li>Preserving the dignity of individuals to help them maintain self-worth, privacy and self-respect.</li> <li>You do this by involving the person in their own care; helping them go to the bathroom; giving the person time they need, checking what they would like to be called; closing door or curtain when they are changing; making sure their clothes are clean; dealing with embarrassing situations sensitively and professionally.</li> </ul>			
Effective communication		<ul> <li>In health and social care it is important to communicate effectively with service used in order to build trusting relationships. These can be lost of the care worker appears not to care or listen.</li> <li>Recognising different communication needs and trying to overcome them shows that cares respect the individual e.g. when visually impaired providing a leaflet in braille; if can't speak English well, have a translator organised beforehand.</li> <li>Show you value the person through showing empathy, asking questions, not judging, smiling, using their name, giving appropriate eye contact, open body language, giving time to process.</li> </ul>			
Safeguarding and duty of care		<ul> <li>Health and social care workers have a legal duty to protect service users from harm, neglect or abuse. They must recognise the signs and symptoms of abuse so they can protect people.</li> <li>Signs of abuse include low self-esteem, STDs, unexplained injuries or bruises, insomnia, change in appetite, change of personality, self-harming, fear of being alone etc.</li> <li>What to do: report the abuse, never promise to keep the abuse secret, make it clear that you will have to tell someone e.g. your supervisor or the police.</li> <li>DUTY OF CARE</li> <li>Care workers must work in ways that never put individuals at any risk or harms. They need to know their responsibilities, procedures, deliver care as the care plan states and always report and record any concerns about the service user even if they appear minor.</li> </ul>			
Promoting anti- discriminatory practice		<ul> <li>Discrimination can be obvious but sometimes it can be subtle and hidden, and The Equality Act 2010 makes it illegal to discriminate against people because of their e.g. age, gender, race, disability, religion, sexual orientation, marital status etc.</li> <li>You can promote anti-discriminatory practice by: having patience with someone who doesn't speak English well; communicating in a way that the person will understand; showing tolerance</li> </ul>			

towards people who have different beliefs and values from you; challenging unkind behaviour.

# Year 11 BTEC Health and Social Care- Component 2: Health and Social Care Services and Values.

What we are learning:		H Iden	tifying own strengths and areas for improvement against the care values		
G. How to apply care values in a compassionate way.     H. Identifying own strengths and areas for improvement against the care values		Working together	<ul> <li>All care works have the responsibility to uphold care values. If everyone works together, doing their 'bit', service users and colleagues alike will all be able to have positive experiences.</li> <li>Put any feelings aside, some clients can show anger or aggressions towards you, continues to work in a way that respects each of the care values.</li> </ul>		
G How to way?	apply care values in a compassionate		<ul> <li>Staff training:</li> <li>Staff training keeps everyone updated. Even if they also ready had care values training it is important to have it again and remind them of their importance.</li> </ul>		
Show emp <u>athy</u> care by:	<ul> <li>Being patient</li> <li>Showing sensitivity</li> <li>Understanding</li> <li>Actively listening</li> <li>Having a positive outlook</li> <li>Being encouraging</li> <li>Having genuine concern for other people.</li> </ul>	Making mistakes	<ul> <li>Everyone sometimes make mistakes. It is crucial that staff own up to mistakes that they have made, not matter how small. This is part of the duty of care to safeguard individuals, it demonstrates respect.</li> <li>You need to be honest about your mistake, do not pretend it never happened and do not blame someone else.</li> <li>You can: <ul> <li>Tell your supervisor, admit it and apologise</li> <li>Be honest and accurate about what happened,</li> </ul> </li> </ul>		
Care workers can check themselves against the 'Six C's of Compassionate Care' checklist to make sure they are applying care values with compassion.			<ul> <li>Suggest ways to avoid it happening again</li> <li>Earn back the trust of the person involved</li> <li>Prove you can do the job</li> <li>Do no be too hard on yourself; seek help and guidance from others.</li> </ul>		
Care	Helps to improve an individual's health and wellbeing. Care should be tailored to each person's needs and circumstances	Reviewing own applications of	<ul> <li>One way to improve skills is to look carefully at the areas you are good at, wh you are able to do well and things that you find difficult.</li> <li>Knowing your strengths will allow you to take on task with ease and make you</li> </ul>		
Compassion	Shows the care worker understands what the individual is experiencing. Being empathetic to their situation shows care and value to the individual	care values	<ul> <li>feel confident that you are doing a good job.</li> <li>Knowing your weaknesses and what needs improving will help you work on them and develop. It is important to be open with yourself and others in order to progress further and be better at your job.</li> </ul>		
Competence	Shows that care workers can safeguard and protect individuals from harm	Receiving	<ul> <li>Regularly review your strengths and weaknesses because they change overtime</li> <li>The purpose of feedback is to let you know what you are doing well and the</li> </ul>		
Communication	How to adapt to individuals and their circumstances to ensure important information is given and shared- keeping the individual at the heart of everything that is done	feedback	<ul> <li>areas you need to improve.</li> <li>This can be formal- like reports and following an observation at work and Informal- like chatting to colleagues at break time.</li> <li>Both types encourage you to feel pleased with what you have done well and motivate you to improve in weaker areas, perhaps even provide a way forward.</li> <li>Remember: when giving and receiving feedback, positives must be noted so that</li> </ul>		
Courage	Protecting individuals by speaking up if you think something is wrong; being brave enough to own up if you have made a mistake.		you know what you are doing well and continue to do so. Negatives are hard to uncomfortable to hear, but do not take them personally, you need them to get better at your job and feel more confident.		
Commitment	Carrying out your duties to care for others to the best of your ability.	Using feedback	<ul> <li>Create yourself a SMART action plan to set yourself Specific, Measurable, Achievable, Realistic and Time-related targets or goals to help plan for your improvements</li> </ul>		

