BOURNEMOUTH SCHOOL

Year 10

Knowledge Organiser 3

Spring Term: 2024-25

Name: Master Copy

Registration Form: 10

✓Hard Work ✓Discipline ✓Smart Appearance ✓Respect

Bournemouth School

Knowledge Organiser 3: Year 10 Spring Term

'Knowledge is power' by Francis Bacon

A knowledge organiser provides you with all the most important knowledge you need for each unit of study this half term. Your aim is to transfer all of this information into your long-term memory so you can use it in your lessons and further expand your understanding of this work.

How to use your knowledge organiser (KO):

1. Ensure you have your KO and Homework Learning journal with you at all times in school and when you need to do your homework at home.
2. In lessons when you have covered information that appears on your KO, your teacher will ask you to put a tick next to that section. This means that is now added to what you must learn for homework.
3. Initially, follow your homework timetable to decide what to revise each evening.
4. There are 4 strategies that you can use to revise. They are progressively more challenging so always start with the first in the list.
    a. **Look Cover Write Check**
        i. Identify the subject and section of your KO that you want to revise. This should be one of the ticked sections.
        ii. LOOK carefully at the subject and section of your KO you want to revise and try to remember as much as you can. Remember this should be a ticked section.
        iii. Now COVER this information so you can't read it.
        iv. WRITE out what you can remember word for word in your Homework Learning Journal.
        v. CHECK what you have written by comparing it to your KO. Tick each correct word in green pen and correct any errors you have made.
        vi. Repeat this process until you are confident you can remember everything you need.

        AIM:

        You should be able to repeat the information by rote
    b. **Self or peer quizzing**
        i. Identify the subject and section of your KO that you want to revise. This should be one of the ticked sections.
        ii. Write out a list of questions you could ask either yourself or a friend about this section of the KO. Write these in your Homework Learning Journal.
        iii. If you are working on your own, cover the KO and write a full answer to each question.
        iv. If you are working with a partner swap books and copy down their questions and have a go at answering them.
        v. Now uncover the KO and with a green pen correct your work.

        AIM:

        You should be able to repeat the information by rote but with a good understanding

    c. **Playing with words and sentences**
        i. Identify the subject and section of your KO that you want to revise. This should be one of the ticked sections.

ii. You now want to check how well you have learnt the information in your KO.
iii. Definitions – look at words that are used in this section. Can you write a definition in your own words?
iv. Rephrasing – can you rewrite the sentences or explanations in your own words?
v. Summary – can you summarise the main points of this section of the KO?
vi. Synonyms – can you write synonyms for key words and ideas?
vii. New Sentences – can you write a sentence that includes the key vocabulary or definitions that you have learnt?

AIM

You should be able to use the information in your KO in a flexible and confident way in your writing.

d. Think it, Link it

i. This is a technique to use towards the end of the half term when you are revising all of the KO.
ii. Think of the links or connections between different sections of your KO.
iii. Write these out in your own words in your Homework Learning Journal.
iv. Think about the links between a particular section of your KO and what you have learnt in your lessons. Can you expand on this section by linking it to your wider knowledge?
v. Write this out in your Homework Learning Journal.

AIM

You should be able to link your homework and your lessons to show a confident understanding of the work covered.

Homework Learning Journal

1. Always write the subject and the date when you start your homework.
2. Always write the strategy that you are going to use for your homework.
3. Always use a ruler to underline titles and dates.
4. Use a blue or black pen to complete your homework or a pencil if you need to draw.
5. Use a green pen to complete corrections of your work.
6. **You are expected to complete half a side of your Homework Learning Journal each evening as a minimum.**

Checking:

Your tutor will check your Homework Learning Journal at least once a week. If they are concerned that you aren't doing your homework properly they will offer support and guidance. If you don't respond to this guidance you will be added to the afterschool 'Success club' where a member of staff will help you complete your homework.

DO NOW tasks:

At the start of every lesson you should expect a Do Now task. This is a low stakes retrieval quiz on what you have learnt so far. If you have completed your homework this should be easy. The aim is to get 100% in each of these. If you miss this target occasionally, don't worry. If it happens regularly your teacher will ask your tutor to have a chat and offer you support.

Maths:

Your teacher will set you tasks to complete on Dr Frost Maths. This will be set every week on a Monday and will be collected in and checked on a Friday. If this has not been completed you will be issued a Detention on a Wednesday Lunchtime.

How long should I spend on my homework?

Key Stage 4					
Week 1					
Time	Monday	Tuesday	Wednesday	Thursday	Friday
5 mins	MFL	MFL	Physical Activity	MFL	MFL
10	Maths	English		Maths	English
10	Biology	RS		Chemistry	Physics
10	Option C	Option D		Option A	Option B
55	Reading / Revision	Reading / Revision		Reading / Revision	Reading / Revision
Week 2					
Time	Monday	Tuesday	Wednesday	Thursday	Friday
5 mins	MFL	MFL	Physical Activity	MFL	MFL
10	Maths	English		Maths	English
10	Biology	RS		Chemistry	Physics
10	Option C	Option D		Option A	Option B
55	Reading / Revision	Reading / Revision		Reading / Revision	Reading / Revision

- You should spend about 35 minutes revising your KO each day.
- You should spend 25 minutes either reading or revising each day.
- This timetable is a guide. If you want to spend longer revising one subject that you find more difficult and less time on one you find easy, that is your choice.
- We would like you to spend one evening involved in a physical activity. This might be a sports club, a run, a game of football with friends or just a nice walk with the dog. Ask your PE teacher if you need guidance with this. It doesn't have to be on a Wednesday.

The History of Watercolour - Watercolour painting is one of the oldest forms of art. The mixing of a dry pigment with water to achieve a desired image can be dated back as far as the Paleolithic period. However, their use as a key component of western art history is at the dawn of the renaissance with Albrecht Dürer.

Watercolour materials - What is watercolour paint made of? Besides the coloured pigment there is a binder to keep the colour intact. This binder would have historically been a sugar or bone hide glue, from the 19th century onwards it is typically gum arabic. Preservatives are also present to aid in durability and additives such as honey and glycerin help the pigment to easily become soluble when met with a wet brush

Historically, the pigment within watercolours would have been purchased separately from an apothecary and mixed with the binder and other ingredients in a studio setting. In 1781, the first 'paint cakes' were developed in London, allowing an artist to obtain a palette of pre-prepared colours. This invention encouraged the popularity of watercolour painting in the 19th century.

Acrylic paint is a water-based paint made of pigment suspended in an acrylic polymer emulsion. Acrylic paint is fast-drying, waterproof, and non-toxic. It's also versatile and can be used on many surfaces, including wood, glass, metal, fabric, ceramic, and plastic. Acrylic paint can be applied with a brush, palette knife, or spray gun. Depending on how it's diluted with water or modified with acrylic gels, mediums, or pastes, the finished painting can have a variety of characteristics.

Acrylic paint is made from a synthetic resin that binds pigments. The water in the emulsion keeps it liquid until it evaporates, causing the polymer particles to fuse together and trap the pigment.

Acrylic paint was invented in 1941 by chemist Otto Röhm as an alternative to oil paints.

Bright
Similar to a flat but produce smaller, more controlled strokes.

Filbert
A paddle-shaped brush that holds a lot of water so great for washes. Bristles remain together when wet so great for smooth blending and stroking. Its tapered shape is excellent for painting leaves and flowers.

Fan
Shaped like a fan. Great for soft blending. If in a rough bristle such as hog – can be used effectively for creating textured things like grass.

Liner
Ultra-fine brush point ideal for intricate outlining and detailing. Small in size but its belly can still hold a decent amount of fluid.

Rigger
Long, fine bristle shape ideal for line work or great for detail when turned on its poin

	LCWC	Tick
Watercolour paper	Watercolour paper is a versatile surface which has a degree of absorbency that allows transparent colour to appear its most luminous. Watercolour paper is not only for use with watercolour paints – it can also be used for acrylics, gouache, pastels, pencils, graphite, charcoal, and it can also be primed for oil.	
Watercolour paper type	**Acid-free Wood Pulp** The most affordable watercolour papers, as well as those found in many watercolour sketchbooks, are made with wood pulp that has had naturally occurring acidic components, like lignin, removed. As a result, these papers resist discolouration and yellowing, but they are not as durable as cotton papers.	
Types of watercolour paper manufacture	**Hot pressed** paper has the least textured surface, having been pressed between hot metal rollers during production. Hot pressed paper is favoured by those who like to work delicately with a lot of detail, such as botanical artists. Hot pressed paper tends to be the least absorbent of all of the textures, and watery washes can sit on the surface for a long time.	
	Cold pressed (NOT) paper is made by pressing the sheet through cold metal rollers, and it has a slight texture to it. It is the most popular watercolour paper surface to work on because it is well adapted to many painting approaches. The paint will sink a little into the dimples on the surface of the paper, but it will also be sympathetic to some more detailed work. Cold pressed paper tends to be a little more absorbent than hot pressed paper.	
	Rough paper is the roughest texture paper available; it is pressed between sheets of textured felt during the drying process and is not pressed between smooth rollers. This paper surface is suited to bold, expressive painting techniques.	
Stretching paper	Stretching watercolour paper involves deliberately saturating the paper with water in order to expand it, fixing it to a board, usually with gumstrip around the edges, then allowing it to dry before painting. Preparing your paper like this is the best way to ensure a completely flat surface.	
Acrylic painting	**Canvas**: A popular choice for acrylic painting, canvas is absorbent, lightweight, and has a nice fabric texture. **Wood or MDF**: For a smoother surface, you can paint on wood or medium-density fiberboard (MDF). Before painting, you should apply a layer of gesso to prepare the surface. **Paper**: A good choice for those working in a watercolor style. **Galeria Acrylic Pads**: A popular choice for sketching or outdoor work. **Other surfaces**: Acrylic paint can also be used on degreased leather, brickwork, rocks, glass, fabric, cardboard, metal, and plastic.	

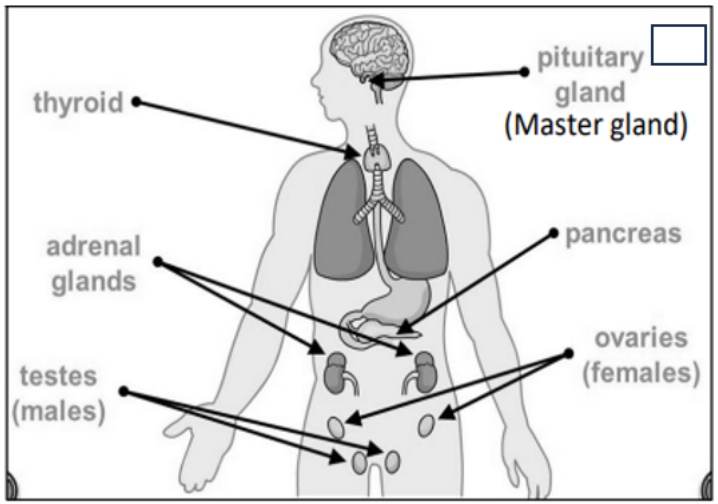
B5b Hormone control in humans

Keyword	Learn	✓
Homeostasis	Regulating the internal conditions of the body (temperature, water levels, blood glucose)	
Endocrine System	Hormonal system - involves glands, hormones and blood vessels	
Hormone	Chemical messengers released by glands that travel in bloodstream	
Gland	Releases a chemical messenger (hormone) into the bloodstream	
Thermoregulatory Centre	Contains receptors sensitive to the temperature of the blood	
Thermoregulation	If the body temperature is too high, blood vessels dilate (vasodilation) and sweat is produced from the sweat glands. If the body temperature is too low, blood vessels constrict (vasoconstriction), sweating stops and skeletal muscles contract (shiver).	

Keyword	Learn	✓
ADH (Anti-diuretic hormone)	Makes the tubules of the kidney more permeable to water.	
Deamination	Converting amino acids into ammonia. This ammonia is then converted into urea to be excreted in urine.	
Thyroxine	Stimulates the basal metabolic rate. Plays an important role in growth and development	
Adrenaline	Produced in times of fear or stress. Increases the heart rate (more oxygen and glucose delivery to brain and muscles). Prepares you for 'flight or fight'	
Type 1 Diabetes	The pancreas fails to produce sufficient insulin. It is characterised by uncontrolled high blood glucose levels and is normally treated with insulin injections	
Type 2 Diabetes	The body cells no longer respond to insulin produced by the pancreas. A carbohydrate controlled diet and an exercise regime are common treatments. Obesity is a risk factor for Type 2 diabetes.	

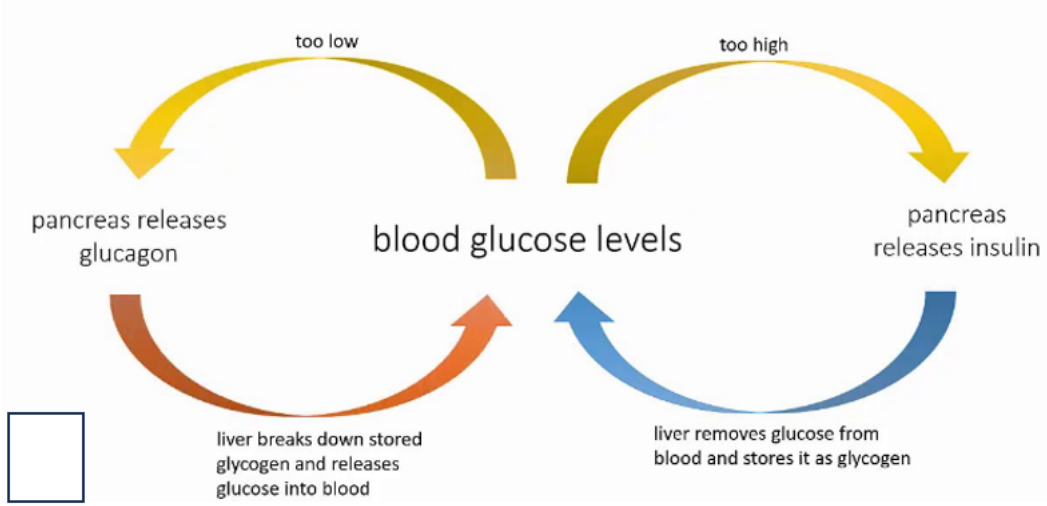
B5b Hormone control in humans

Hormone	Role in menstrual cycle
FSH	Produced by the pituitary gland. Matures the egg.
Oestrogen	Produced by the ovaries. Thickens uterus lining and Inhibits FSH.
Progesterone	Maintains uterus lining.
LH	Produced by the pituitary gland. Releases the egg (ovulation)



IVF – learn the steps
1. FSH/LH given to mature and release more eggs
2. eggs collected and fertilised artificially
3. fertilised eggs develop into embryos
4. implanted into mother's uterus

Contraception Type	Examples and how it works
Barrier Methods	Condom/diaphragm – prevent sperm reaching egg
Oral (The Pill)	Contains oestrogen to inhibit FSH and stop egg maturing
Long term Hormonal	Skin patch, injection, implant contains progesterone to inhibit maturation and release of egg for several months/years
IUD (Intrauterine device)	prevents implantation of egg into uterus/releases hormone



Key Term	Definition	✓
Segmentation	Market segmentation splits a market into different groups to enable a business to target its products to the relevant customers	
Target market	Specific group of people that a product is aimed at	
Marketing strategy	How the marketing function fits in with the overall strategy for a business	

Benefits of market segmentation	✓
Knowing different market segments can allow businesses to identify their target market	
A more specific targeted marketing strategy can be created.	
Marketing is more effective, for example promotion aimed at teenagers may include social media	

Methods of segmentation		✓
Method	**Explanation**	
Age	The business can more precisely target its offerings to the needs and wants of each stage of life of interest to it.	
Income	How much people earn and how much disposable income they have to spend on products/services.	
	Geographic segmentation is splitting people into different groups or categories based on location factors such as: ○ Temperature/climate ○ Population	
Gender	Targeting products at a predominantly male or female customer. Both men and women have different interest in terms of shopping for various products and services	

Importance of identifying and satisfying customer needs		✓
A Business must identify and fulfil customers' needs. There are four main customer needs that an entrepreneur or small business must consider.		
Customer need	**Explanation**	
Price	How much a business charges for its product or service It is important for a price to match the quality of the product or service.	
Quality	The standard of the product or service being offered. Customers always expect some level of quality, no matter how much they pay for a product or service.	
Choice	Many businesses have a range of products and/or services available to suit different groups of customers.	
Convenience	Convenience relates to something being easier, quicker or generally less hassle for customers.	

Importance of satisfying needs for a new business	✓
Generate sales	
Survival	

Types of market research

Key term	Definition	Examples	Benefits	Drawbacks	
Quantitative research	○ Concerned with and based on data ○ Based on larger samples and is, therefore, more statistically valid	Survey methods including: ○ Telephone ○ Postal ○ Face-to-face ○ Online	○ Data is relatively easy to analyse ○ Can be compared with data from other sources (e.g. competitors, history)	○ Doesn't explain the reasons behind numerical trends ○ May lack reliability if sample size is small.	
Qualitative research	○ Based on opinions, attitudes, beliefs and intentions ○ Aims to understand why customers behave in a certain way or how they may respond to a new product or service	○ Focus groups ○ Interviews	○ Focused on understanding customer needs, wants, expectations ○ Can highlight issues that need addressing – e.g. why customers don't buy	○ Expensive to collect and analyse – requires specialist research skills ○ Based around opinions – always a risk that sample is not representative	
Primary research	Research data that is collected **first-hand** for a **specific research purpose.**	○ Focus groups ○ Interviews (online & in-person) ○ Surveys & questionnaires ○ Mystery shoppers ○ Product testing / product trials	○ Directly focused on research objectives = fit for purpose ○ Tends to be more up-to-date than secondary research	○ Time-consuming and often costly to obtain ○ Risk of survey bias – research samples may not be representative of the population	
Secondary research	Uses **data that already exists** and has been collected by someone else for another purpose.	○ Reports from market research organisations such as MINTEL ○ Government websites/reports ○ Competitors websites ○ Trade Publications / Magazines ○ Newspapers	○ Quick and easy to gather ○ Can provide industry-specific information ○ Cheaper than primary research	○ Not specific to businesses specific needs ○ Could be out of date	

Purpose of market research

Collect information about:
- Demand
- Competition
- Target market

Interpreting marketing data – Key Formulas

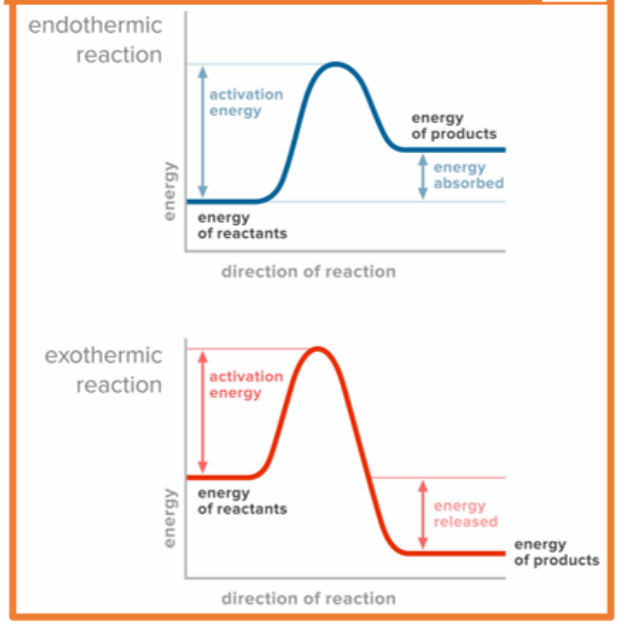
Market Share = the % of the total market owned by a business, product or brand.	Market Growth = the % growth in the size of the market, measured over a specific period.	Market Size = the total volume of a given market
$\text{Market Share (\%)} = \frac{\text{Company Sales}}{\text{Total Market Sales}}$	$\left[\frac{\text{Current market size}}{\text{Original market size}}\right] - 1 \times 100$	Number of target users x purchases expected in a given period = market size

Topic 5 – Energy Changes

Key term	Definition	✓
Exothermic reaction	Thermal energy is transferred from the chemicals to the surroundings. The temperature of the surroundings rises.	
Endothermic reaction	Thermal energy is transferred to the chemicals from the surroundings. The temperature of the surroundings decreases.	
Activation energy	The minimum energy particles must have to react	
Bond energies	The amount of energy in kJ required to break 1 mole of a chemical bond.	
Bond breaking	This is an endothermic process. Energy is taken in.	
Bond making	This is an exothermic process. Energy is released.	
Reaction profile	A diagram to show the relative energies of reactants and products	
Cell	Two electrodes in an electrolyte used to generate electricity	
Battery	Two or more chemical cells connected together	
Electrolyte	A liquid containing ions that conducts electricity	
Fuel Cell	A chemical cell with a continuous supply of chemicals to fuel the cell	

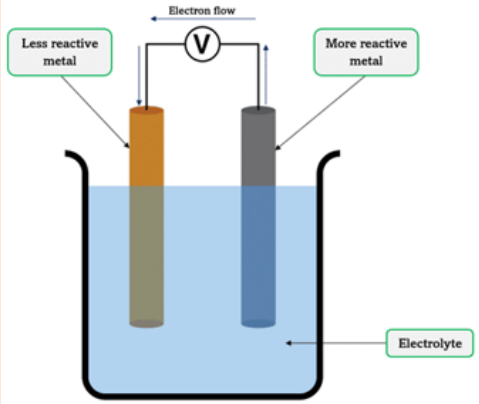
Exothermic reactions	Endothermic reactions	✓
Calcium oxide reacting with water	Ammonium nitrate dissolving in water	
Combustion	Thermal decomposition	
Neutralisation	Photosynthesis	

Reaction Profiles



Exothermic profile: Products are lower than reactants: more energy is given out when new bonds are made than is taken in to break the original bonds.

Endothermic profile: Products are higher than reactants: more energy is taken in to break the original bonds than is given out when new bonds are made.



The voltage of a cell is affected by:

1) The difference in reactivity of the metal electrodes. The bigger the difference, the bigger the voltage.

2) Changing the electrolyte or concentration of the electrolyte.

Energy change calculation

1. Add together the bond energies for all the bonds in the **reactants** – this is the 'energy in'.
2. Add together the bond energies for all the bonds in the **products** – this is the 'energy out'.
3. Calculate the energy change = energy in – energy out.

Type of cell	Pros	Cons
Alkaline cell	Cheaper to manufacture	May end up in landfill sites once fully discharged
Rechargeable cell	Can be recharged many times	Costs more to manufacture
Hydrogen fuel cell	No moving parts. Water is the only chemical product	Expensive to manufacture. Hydrogen is flammable

1.5 Systems software

Keyword	Definition	✓
Applications software	Software designed to enable users to perform specific tasks.	
System software	Provides an interface between applications software and hardware.	
Operating system	Manages the hardware in a computer and provides an environment for applications to run.	
Utility software	Used to analyse, configure, optimise and maintain a computer system.	
Device driver	Software written by hardware manufacturers to allow devices to communicate with the operating system and vice versa.	
User interface	Allows a user to interact and exchange information with the computer.	
Memory management	Controls the use of the RAM and shares processor time between different programs and processes.	
User management	The system that is used by the operating system to allocate an account or control user access into a network.	
File management	The system that is used by the operating system to organise and keep track of files on secondary storage.	
Peripheral management	The system that is used by the operating system to manage external hardware devices.	

2.2 Programming fundamentals

Keyword	Definition / Example	✓
Variable	A label/identifier which is used to identify a memory location used to store a value that *can be changed* while the program is running.	
Constant	A label/identifier which is used to identify a memory location used to store a value that *cannot be changed* while the program is running.	
Input	Data sent to a computer to be processed. `name = input("Please enter your name.")`	
Output	Processed information that is sent out from a computer. `print("Hello world!")`	
Casting	Convert from one data type to another.	
Data Types	Determines what type of value the variable will hold. *Integer* – Whole number: `age = 12` *Real / float* – Number that *can* have a fractional part: `height = 1.52` *Character* – A single letter, symbol or number: `letter = 'a'` *String* – Multiple characters: `name = "Bart"` *Boolean* – Has two values: true or false: `a = True` `b = False`	
Arithmetic operators	Mathematical functions that take two operands and performs a calculation on them.	

	Python		OCR Ref.
Add	`7 + 2`	`= 9`	`7 + 2`
Subtract	`7 - 2`	`= 5`	`7 - 2`
Multiply	`7 * 2`	`= 14`	`7 * 2`
Divide	`4 / 2`	`= 2`	`4 / 2`
Power	`2 ** 3`	`= 8`	`2 ^ 3`
Integer/floor division	`7 // 2`	`= 3`	`7 DIV 2`
Modulus	`7 % 2`	`= 1`	`7 MOD 2`

Year 10 The Strange Case of Dr Jekyll and Mr Hyde

Ch	Title and Key events	✓
1	**The Story of the Door** Utterson and Enfield encounter a strange and sinister looking door. This prompts Enfield to tells a story about how he met Hyde, who trampled over a child and then, blackmailed by the onlookers, entered this door, returning with a cheque made out by a respectable gentleman.	
2	**Search for Mr Hyde** Utterson guesses the gentleman from Enfield's story from the troubling terms of Henry Jekyll's will, which leaves everything to Hyde. Utterson is sure Hyde must be blackmailing Hyde. He decides to arrange an encounter with him and meets him by the same door, which we later learn is the side entrance to Jekyll's own property. Like Enfield, Utterson finds Hyde instantly repulsive. He attempts to speak with Jekyll but is told that he is not at home. Jekyll's servant Poole reveals that all Jekyll staff have orders to obey Hyde.	
3	**Dr Jekyll Was Quite At Ease** Utterson meets with Jekyll and expresses his concerns over Hyde and the will. Jekyll brushes his worries aside saying that he can be rid of Hyde whenever he chooses.	
4	**The Carew Murder Case** Nearly a year later, Hyde viciously beats a distinguished gentleman: Sir Danvers Carew with a cane, murdering him, apparently without provocation. Utterson identifies the body and recognises Jekyll's cane. He goes with the police to Hyde's dingy lodgings in disreputable Soho. There are signs that Hyde has fled.	
5	**Incident of the Letter** Utterson goes to Jekyll's house and finds him looking "deadly sick". Jekyll gives Utterson a letter, supposedly from Hyde, stating his intention to disappear. However, inspection by Utterson's clerk: Mr Guest, suggests the letter has actually been written by Jekyll.	
6	**Remarkable incident of Dr Lanyon** For a while Jekyll seems healthier and happier. Utterson visits Dr Lanyon who is on his death bed. Something has driven him to death but he will not say what. He gives Utterson a letter, to be opened if Jekyll dies or disappears. Utterson attempts to visit Jekyll once more but is told by Poole that he cannot see anyone.	
7	**Incident at the Window** Utterson and Enfield see Jekyll at his window. He greets them, but then a strange change sweeps over his features and he flees back inside.	
8	**The Last Night** Poole arrives to seek Utterson's aid. He believes that Hyde is shut up in Jekyll's home, pretending to be him and desperately requesting a certain chemical. They break the door down and find Hyde's body. Hyde has committed suicide. There is no sign of Jekyll, but left behind is a letter from Jekyll to Utterson and a note urging him to read Lanyon's account.	
9	**Dr Lanyon' Narrative** Dr Lanyon's account details how he received a letter from Jekyll, begging him to collect certain chemicals and a notebook from Jekyll's home. Hyde then arrived and the horrified Lanyon witnessed him turning back into Jekyll. The shock was so great that it sent him to his death bed.	
10	**Henry Jekyll's Full Statement of the Case** Jekyll's account details how he created the potion which turned him into Hyde. He was seeking to separate the animalistic/evil desires in him to better meet societies expectations. He used the discovery to indulge secretly in vice. However, he lost the ability to control the transformation and Hyde took over completely.	

Characters and quotes		✓
Gabriel Utterson: *The model of a Victorian Gentleman: restrained, serious and guards his friend's reputations.*	"lean, long, dusty, dreary and yet somehow lovable" "He was austere with himself; drank gin when he was alone, to mortify a taste for vintages"	
Richard Enfield: *Respected but pursues a lively (and mysterious) social life.*	"I was coming home from some place at the end of the world, about three o'clock of a black winter morning"	
Dr Henry Jekyll: *An admired and respected Dr, but known to have had a wild streak in his youth.*	"the very pink of the proprieties, celebrated too" "man is not truly one, but truly two"	
Mr Hyde: *Repulsive, animalistic, driven by base desires and instincts. He is an expression of the repressed desires of Victorian society.*	"with ape-like fury, he was trampling his victim under foot" "My devil had been long caged, he came out roaring."	
Dr Lanyon: *A disciplined and respected scientist, who disapproves of Dr Jekyll's rash approach.*	"it is more than ten years since Henry Jekyll became too fanciful for me. He began to go wrong, wrong in mind."	
Sir Danvers Carew: *Graceful, dignified and civilized.*	"an aged beautiful gentleman with white hair"	

Poem	Summary	Themes	Quotes	✓
Ozymandias- Shelley	The broken statue of a once-great Pharaoh acts a symbol for the impermanence of man's power, compared to nature.	Man vs Nature, Abuse/arrogance of power.	"My name is Ozymandias, Kind of Kings" "Round the decay of that colossal wreck"	
London- Blake	A man wanders the streets of Georgian London , witnessing the poverty and suffering of the working classes.	Abuse/arrogance of power, Inequality, Man vs Nature.	"the mind forged manacles" "the chimney-sweeper's cry, every black'ning church appals"	
The Prelude- Wordsworth	A young man steals a boat, only to be humbled by nature's power as an unseen mountain towers over him.	Man vs Nature, Arrogance of power.	"my boat went heaving through the water like a swan" "A huge peak, black and huge […] upreared its head"	
My Last Duchess- Browning	An arrogant duke shows a guest a painting of his last wife; he hints that he had her murdered as she displeased him.	Abuse/arrogance of power, Inequality	"That's my last Duchess painted on the wall" "I gave commands then all smiles stopped"	
The Charge of the Light Brigade- Tennyson	600 soldiers bravely carry out a miscommunicated order. The charge is a failure, but their heroism is remembered.	Heroism of war, Memory.	"Half a league, half a league, half a league onward" "Into the valley of death rode the six hundred"	
Exposure- Owen	A group of soldiers in the trenches of WW1 suffer the appalling conditions and exposure to the cold.	Horror of war, Memory, Man vs Nature, Disillusionment.	"Our brains ache in the merciless iced east winds that knive us" "Dawn massing in the East her melancholy army"	
Storm on The Island- Heaney	A rural island community is swept over by a terrible storm. The storm can act as an extended metaphor for the troubles in Ireland.	Man vs Nature, Horror of conflict, social divides.	The sea "spits like a tame cat turned savage" "wind dives and strafes invisibly. Space is a salvo."	
Bayonet Charge- Hughes	A solider is overcome with terror, going over the top of a trench during WW1.	Horror of war, Disillusionment.	"suddenly he awoke and was running" "in what cold clockwork of the stars and the nations was he the hand pointing that second?"	
Remains- Armitage	A soldier shoots a looter while on patrol and his haunted by PTSD and feelings of guilt.	Horror of war, Memory, Psychological suffering.	"his blood shadow stays on the street" "he's here in my head when I close my eyes, dug in behind enemy lines".	
Poppies –Weir	A mother grieves as she sees her son go off to war, remembering the boy he once was.	Memory, Loss/Grief (psychological suffering)	"released a songbird from its cage" "hoping to hear your playground voice catching on the wind"	
War Photographer- Duffy	A photographer suffers from feelings of depression and isolation after reporting on conflict around the world.	Horror of conflict, Psychological suffering, Memory.	"In his darkroom he is finally alone" "A stranger's features faintly start to twist before his eyes, a half formed ghost"	
Tissue- Dharker	Paper is used as an extended metaphor for the strength and fragility of the things which make up our lives: faith, finance, culture, cities etc.	Power of society, Individual identity.	"Paper that lets the light shine through" "Maps too. The sun shines through their borderlines"	
The Émigrée- Rumens	A girl, displaced from her home country struggles with conflicted feelings for her old/new homes.	Power of society, Individual identity, Memory.	"my original view, the bright, filled paperweight" "I am branded by an impression of sunlight"	
Checking Out Me History- Agard	The narrator explores the figures cut out of history by Eurocentric, whitewashed accounts of the world. He reclaims his cultural history.	Power of society, Inequality, Individual identity.	"Dem tell me Wha dem want to tell me" "now I checking out me own history, I carving out me identity"	
Kamikaze – Garland	A daughter looks back on how her father failed to carry out his mission as a WW2 kamikaze pilot, suffering disgrace for his choice.	Power of society, Family, Individual Identity, Memory.	"her father embarked at sunrise" "sometimes, she said, he must have wondered which had been the better way to die"	

Name: Date:

Food Provenance- Food Source and Supply.

Where food comes from
Food can be grown, reared or caught.
Crops, i.e. Cereals, Sugars, Fruit and Vegetables are Grown. **Meat** is Reared and **Fish** is Caught.

Fruits Can be classed as-
Citrus, Lemons, Limes, Oranges, Grapefruit, Tangerines.
Soft/ Berries- Raspberries, Strawberries, Blueberries etc
Hard-Apples and Pears
Others-Kiwi, Banana, Melon, Pomegranate

Cereals are an important food around the world they are often the **staple food** within a country- this is because they are cheap to produce in comparison to protein foods, the main cereal foods are,
Wheat
Rice-China, India, Indonesia, Bangladesh, Vietnam.
Maize-USA, China, Brazil, Mexico, India, France
Oats-Russia, Canada, Finland, UK Australia
Barley-Russia, France, Germany, UK, Australia
Rye- Europe, Russia, Canada.
Spelt- UK, Russia, Spain, Eastern Europe.
Different countries have different climates so growing cereals as staple foods varies around the world, Wheat is one of the main cereals and is grown in many countries making it a valuable contributor to our diets.

SUGARS-
Sugar cane-A tall bamboo like grass that can grow up to 6 metres tall- Approx 80% of the world's sugar comes from cane it is cheaper than sugar beet.
Sugar Beet is a root crop, looks like a large Turnip.
Honey-is a natural sweetener produced by bees from the nectar of plants, different plants impact on the flavour.
Maple Syrup- comes from the sap of the Maple Tree.
Different sugars have different uses in cooking, Granulated, Caster, Icing, Demerara, Muscavado, Brown, soft brown etc.

Food provenance
Food provenance is about where food is grown, caught or reared, and how it was produced.
Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in the UK, including:


Carbon Footprint- A measure of the impact human activities have on the environment in terms of greenhouse gases produced through the outlet of carbon dioxide.
Eco Footprint -a measure of our effect on the planet

Farming systems
Agriculture in the UK can be grouped into the following:
• **Intensive** – a system of production using large amounts of labour and capital relative to land use (high input/high output);
• **Organic** – a system where artificial fertilisers are not allowed to be used, soil fertility is built through crop rotation, and inorganic pesticide use is severely restricted. It is a form of extensive farming;
• **Free-range** – a system where animals, for at least part of the day, can roam freely outdoors. This may be done within a conventional or an organic system;

Egg Production Methods- There are 4 methods of egg production within the UK Farming Industry- **Organic**, **Barn**, **Free Range** and **Laying Cage Systems/Enriched Colony Cages**.

FISH-TYPES and Fishing Methods
There are 4 classifications of Fish –
White-Cod, Haddock, Coley, Whiting, Flounder, Plaice etc
Oily- Tuna, Mackerel, Sardines, Salmon, Trout, Pilchards, Whitebait, Herring**.**
Shellfish Molluscs-Oysters, Clams, Mussels, Cockles, Scallops.
Shellfish Crustacean- Crab, Lobster, Prawns, Shrimps.
Fishing Methods-Trawling, nets are pulled along the sea floor to catch fish.
Dredging- Metal cages or baskets are dragged along the sea floor to catch shellfish.
Gill Netting- Curtains of nets are suspended in the sea and fish swim into them.
Harpooning-A long spear or pole is lunged into fish.
Jigging-A grappling hook is used to target fish.
Long Lining- Uses long lines that run for miles which are strung with baited hooks at intervals to attract fish.
Pole and line fishing-Uses fishing line to catch fish.
Purse Seining- a large net is drawn around fish to envelope them.
Traps-Pots, wire or mesh cages are baited and placed on the sea floor to attract fish etc.
Cyanide Fishing- Uses Explosives or poisons to stun and kill fish, it is prohibited in many parts of the world.
BY CATCH- Fish which are caught unintentionally when catching other fish, often returned to the sea either dead or dying.
The MSC (Marine stewardship council) Sets Standards for sustainable fishing and seafood traceability.

Vegetables
Are similar to fruit in structure there are 8 types of vegetable,
Leaves- Cabbage, Sprouts, Spinach, Kale etc
Fruit-Cucumber, Marrow, Aubergine, Peppers, Squashes.
Roots-Carrots, Parsnips, Turnips, Beetroot, Swede, Radishes.
Flowers-Cauliflower, Artichoke, Broccoli
Bulbs-Onions, Leek, Shallots, Garlic.
Stem -Celery
Tubers-Potatoes, Sweet Potatoes, Yams.
Seeds / Pods- Peas, Runner Beans, Broad Beans, French Beans.
They come in variety of colours-
Chlorophyll Provides the green colour in cabbages etc
Carotenoids –Yellow and orange, i.e. Carrot
Anthocyanins- Red and Blue i.e. Beetroot, red cabbage.
For both fruits and vegetables the many water soluble vitamins are destroyed when they are processed, especially when canning. Some are harvested and frozen within 3 hours.

Hydroponics
Hydroponic vegetables are grown in a nutrient solution rather than soil. Tomatoes, peppers and lettuce are increasingly grown this way. Growing vegetables hydroponically enables them to be grown in a controlled environment with less chance of disease, faster growth and greater yield.

Genetic modification and biotechnology
Genetic modification of plants and crops can help:
- improve crops resistance to pests, disease or drought;
- extend shelf life;
- improve nutrition and taste;
- produce higher yields;
- animals may be made more resistant to disease, produce less fatty meat, grow faster or be more fertile.

Fish Farming- Farming can be divided into 3 groups.
Farming – whole process takes place in captivity, from breeding eggs to catching of fish.
Sea Rearing- Young fish are caught in the wild and then reared in a controlled environment and fished.
Sea Ranching- Young Fish are bred in captivity and the released into the wild to increase fish stocks.

Classifications of Meat, Poultry and Game.
Meat- Beef, Lamb, Mutton, Pork, Bacon.
Game- Venison (Deer), Rabbit, Pheasant
Poultry- Duck, Turkey, Chicken, Goose.
Offal- Kidney, Heart, Liver, Tongue, Lung.
There is a large amount of meat and meat product available to buy. The quality of the product will depend on how the animal has been kept, what it was fed, its age and how it was processed and cooked.

Key terms
Food provenance: Knowing where food was grown, caught or raised and how it was produced.
Genetic modification: The direct manipulation of an organism's genes using biotechnology.
Hydroponics: The process of growing plants in sand, gravel, or liquid, with added nutrients but without soil.
Organic farming: A system of farming and food production. Certification is legally required to grow, process or market organic products.
Sustainable- Resources used in the production and cultivation of the foodstuff will not run out.
.**Seasonality:** Fruit and vegetables naturally grow in cycles, and ripen during a certain season each year.

Seasonality in the UK and Locally produced foods.
Fruit and vegetables naturally grow in cycles and ripen during a certain season each year. When they are in season they are harvested.
Advantages-Buying and eating food that is season means that it is fresh, has the best flavour, texture and colour, and has optimum nutritional value. Other benefits include lower cost, supporting local growers, reduced energy needed to grow and transport the ingredients and food and a lower carbon footprint.
Disadvantages – Not as much choice out of season, Some are odd shapes and people may not like that, Can be more expensive.
Seasonal Fruit and Veg UK-
Spring- Cauliflower, Broccoli, Lettuces, Spring Greens, Rhubarb.
Summer- Strawberries, Raspberries, Beans, Currants, Lettuces
Winter- Sprouts, leeks, Cabbage, Parsnips, Swede, Kale.

Imported World food
There are a wide variety of ingredients and foods that are not readily available in the UK, due to the climate. These are imported from other countries.

The availability of these ingredients and foods provides consumers with a wide choice throughout the year. But they do impact on our carbon footprint due to transport costs.

Examples of foods imported include, Bananas from Dominica and Colombia. Pineapples from Costa Rica, Mango from South Africa, Strawberries from Spain, Tomatoes from Morocco, Red Peppers and Cucumber from Holland, Limes from Brazil.

ANIMAL WELFARE SCHEMES
The **Red Tractor** food assurance scheme and **RSPCA Assured.**
Both ensure animal welfare has been considered, farms are visited and inspected to ensure standards are met.

Bournemouth School – Knowledge Organiser – Year 10

FPAN

Quand tu étais plus jeune (Imparfait)	When you were younger (Imperfect)	
ta vie était comment?	How was your life?	
Je suis né(e) en France/en Angleterre	I was born in France/England	
Ma famille était …	My family was…	
Quand j'étais jeune,	When I was younger	
j'habitais…	I used to live…	
je jouais au tennis/au basket	I used to play tennis/basketball	
je travaillais dans un hôtel	I used to work in a hotel	

Maintenant/de nos jours (présent)	Now/these days (present)	
Maintenant, je suis….	Now, I am….	
J'écris des chansons/des poèmes	I write songs/poems	
Je lutte pour les droits des travailleurs	I fight for the rights of workers	

Using prepositions for countries and modes of transport

To say 'in' or 'to' a country in French, it is important to know the gender of the country. Most countries are feminine.

Feminine countries use ***en*** (*en France*).
Masculine singular countries use ***au*** (*au Canada*).
If the country is plural, use ***aux*** (*aux États-Unis*).
For towns, use **à** (*à Paris*).

e.g je vais en France – tu vas aux États-Unis – elle va au Japon

The conditional is used to say what you would do, e.g.
je voyagerais I would travel

To form it, take the future stem and add the **imperfect tense endings**
Note: for regular *-er* verbs, the future tense stem is the infinitive.

je voyager**ais**	nous voyager**ions**
tu voyager**ais**	vous voyager**iez**
il/elle/on voyager**ait**	ils/elles voyager**aient**

Pourquoi voudrais-tu voyager? Why would you like to travel?		
Je voudrais/j'aimerais voyager pour me reposer	I would like to travel to relax	
Me faire des nouveaux amis	To make new friends	
Découvrir une nouvelle culture	To discover a new culture	
Apprendre une nouvelle langue/un nouveau sport	To learn a new language/sport	
Je voudrais passer mes vacances au camping/à l'hôtel/à la maison	I would like to spend my holidays camping/in a hotel/at home	
C'est où?	Where is it?	
C'est à 5 minute de la côte	It's 5 minutes from the coast	
On peut s'amuser en famille	You can have fun as a family	
Se couper du monde/se faire Plaisir	Switch off from the world/treat yourself	

Des vacances de rêve	Dream holidays	
Des vacances…reposantes	Relaxing holidays	
…culturelles	Cultural holidays	
…d'aventure	Adventure holidays	
Je passerais mes vacances ..	I would spend my holiday	
À la montagne/sur une île/en ville	In the mountains/on an island/in a town	
Je logerais…	I would stay	
dans un hôtel de luxe	In a luxury hotel	
dans une ferme	In a farm	
dans un château	In a castle	
sous une tente	In a tent	
Je mangerais de la nourriture locale délicieuse	I would eat delicious local food	
J'irais (avec mes copains)	I would go (with my friends)	

Pour être en forme – In order to keep fit		
Je ferai du sport	I will do sport	
Je ferai trente minutes d'exercice par jour	I will do 30 mins exercise a day	
J'irai au collège à vélo	I will go to school by bike	
Je jouerai au foot	I will play football	
Je mangerai équilibré	I will eat a balanced diet	
Je marcherai au collège	I will walk to school	
Je ne boirai jamais de boissons gazeuses	I will never drinks fizzy drinks	
Je ne jouerai plus à des jeux vidéo	I won't play video games anymore	
Je ne mangerai plus de frites/hamburgers	I will not eat chips/hamburgers anymore	
Je ne prendrai pas le bus	I will not take the bus	
Je prendrai les escaliers	I will take the stairs	
Je prendrai des cours d'arts martiaux	I will take martial arts lessons	

The simple future:

It is used to describe what will happen in the future "I will eat". To form the future tense, use the infinitive plus the appropriate ending
e.g je manger**ai –** *I will eat***.**
For –**er** and **–ir** verbs, the future stem is the infinitive.
For –**re** verbs, drop the –e from the infinitive.
e.g. boir**e** -> Je boir**ai** – *I will drink*
***for irregular verbs, see below*

Verb endings in the simple future		For example
Je	**-ai**	Je manger**ai**
Tu	**-as**	Tu manger**as**
Il/Elle/On	**-a**	Il/Elle/On manger**a**
Nous	**-ons**	Nous manger**ons**
Vous	**-ez**	Vous manger**ez**
Ils/Elles	**-ont**	Ils/Elles manger**ont**

Future tense time phrases		
À l'avenir	In the future	
Un jour	One day	
Si possible	If possible	
A l'age de	At the age of ..	
Après mes études	After studying	

Higher structures for opinions		
Étant donné que	Given that	
Puisque	As/since	
Vu que	Seeing that	
Selon moi	According to me	
Selon mes amis	According to my friends	

Picture Description - Actions		
Il est/ils sont	**He is/they are**	
If fait/ils font	**He is /they are doing**	
Il a /ils ont	**They have**	
Il mange/ils mangent	**He is/they are eating**	
Il regarde/ils regardent	**He is/they are watching (tv)**	
Il porte/ils portent	**He is/they are wearing**	
Il travaille/ils travaillent	**He is/they are working**	
Il lit/ils lisent	**He is / they are reading**	
Il est assis/ils sont assis	**He is/they are sitting**	
il parle avec/ils parlent avec	**He is talking to**	
Il a l'air/ils ont l'air	**He looks / they look**	
Il semble/ils semblent	**He seems/they seem**	

Picture description		
Autre chose?	Anything to add?	
Je pense..	I think..	
Sur la photo	On the photo	
Je peux voir/on peut voir	I can see/you can see	
De plus je peux voir	Also I can see	
À gauche/à droite	On the left/on the right	
À l'arrière plan	In the background	
Au premier plan	In the foreground	
Il est en train de …	He is in the middle of	
Ils sont en train de …	They are in the process of	
La photo a été prise	The photo was taken	
J'imagine que	I image that	

Irregular simple future verbs:		
J'irai	I will go	
Je ferai	I will do	
Je serai	I will be	
J'aurai	I will have	
Je devrai	I will have to	
Ce sera	It will be	
Je pourrai	I will be able to	
Ce sera	It will be	
Il y aura	There will be	

Topic 4: The UK's Evolving Physical Landscape

4.1 Geology and past processes have influenced the physical landscape of the UK

A range of processes influence the UK's physical landscapes:

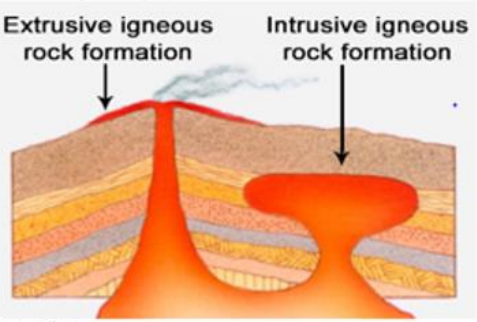
- **geology** (the study of the structure and substance of rocks),
- **past tectonic processes** (previous volcanic eruptions and tectonic uplift)
- **glacial processes** (erosion: **plucking** – freezing onto the surface and removing sediment, **abrasion** – embedded sediment scouring the valley floor and sides; weathering: **freeze-thaw** – water freezing into cracks in the rock, expanding and splitting the rock apart
- **deposition** – sediment put down as a glacier retreats creates outwash till in the valley floor, and moraine at the snout and edges of the glacier).

These processes combine to create distinctive characteristics

- **upland** (areas with more resistant igneous and metamorphic rocks, creating **U-shaped valleys, hanging valleys** and **scree slopes**)
- **lowland** landscapes (areas with less resistant sedimentary rocks creating **dip slopes** and **escarpments**).

Igneous rocks

They are formed when magma from inside the Earth erupts and cools on the surface of the Earth due to volcanic activity (extrusive rocks); or when the magma cools inside the Earth to form intrusive rock which may be exposed to weather and erosion later.



Examples

Basalt (Giant's Causeway)

Granite outcrops (cheesewring)

Uses

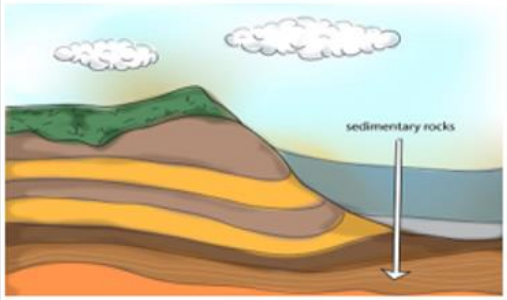
- Pumice (extrusive rock) is used in toothpaste, cosmetic products and cement.
- Granite (intrusive rock) is used for making gravestones, statues and countertops.
- Basalt (extrusive rock) is used in the construction of buildings and statues.
- Gabbro (intrusive rock) is used for flooring, worktops, facing and monumental stones.

Properties and characteristics

- Resistant to erosion and weather
- shines when polished
- Hard
- Contains empty spaces

Sedimentary rocks

They are formed when sediments get deposited on the bottom of oceans, seas or lakes. These sediments include eroded rocks and skeletons of sea creatures, which build up.



Examples

Limestone (Exeter Cathedral)

Sandstone (paving)

Uses

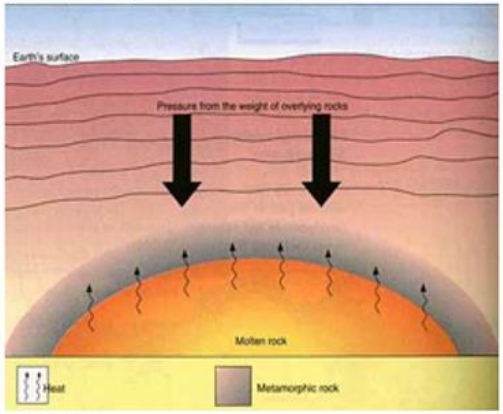
- Sandstone is used for paving tiles and the construction of buildings and statues.
- Limestone is used in toothpaste, to make building materials and statues.
- Shale can be used as filler in the production of paint, used in brick making and is sometimes used as a road aggregate.

Properties and characteristics

- Quite colourful
- Nice texture
- Reacts to erosion and weather (reacts with dilute acid)
- Form in layers or beds

Metamorphic rocks

They are formed when rocks are exposed to lots of pressure and/or heat.



Examples

Marble (floors)

slate (roof tiles)

Uses

- Marble (formed from limestone) is used for fireplaces, sculptures, gravestones, work surfaces, chopping boards and ornaments.
- Slate (formed from clay) is used for roofing, snooker tables, flooring, gravestones and garden decoration
- Schist (formed from shale or sandstone) is used for flooring and garden decorations

Properties and characteristics

- Resistant to weathering and erosion
- Very hard-wearing
- have a "squashed" (foliated or banded) texture

Human activities are different in **upland** and **lowland** areas, and they create distinctive landscapes.

- **Upland** areas (less suitable for many human activities due to climates) have **settlements** which are **smaller** and found in flat valley bottoms, typically use locally sourced materials, such as slates).
- **Lowland** areas (more suitable for a wider variety of human activities) have settlements formed on spring-lines of hillsides and along flatter plains.

Topic 4: The UK's Evolving Physical Landscape - COASTS

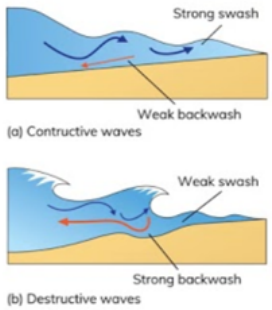
Types of coastline

Concordant coastlines (rock layers parallel to the coast) have a harder outer layer protecting less resistant rock inland as once broken through, **coves** are created as the softer rock is eroded more rapidly creating a crescent shaped.

Discordant coastlines (alternating rock types at right angles to the coast) have different erosion rates. This creates **headlands** (areas of harder rock sticking out into the sea) and **bays** (the area of softer rock eroded away).

Types of wave

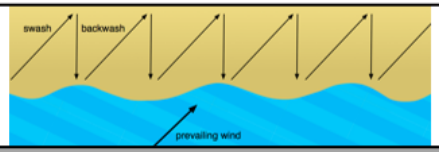
Constructive waves have a strong swash and a weaker backwash. They deposit sediment on the shore. Constructive waves happen in calm weather and during summer months when waves have less energy.
Destructive waves have a weak swash and a stronger backwash. They erode sediment from the shore. Destructive waves happen in poor weather and during winter months when waves have more energy.



Marine Processes

Erosion is the wearing away of rock along the coastline.
Destructive waves are responsible for erosion on the coastline. There are four types of erosion: hydraulic action abrasion, attrition and solution. Erosional landforms include headlands, bays, caves, arches, stacks, stumps and wave-cut platforms.

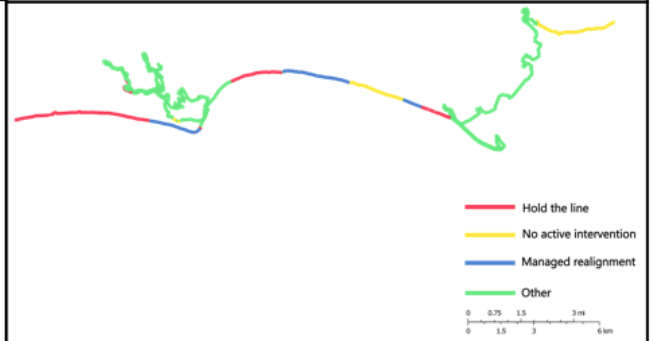
Transportation (movement of material by solution, suspension, saltation and traction) and **deposition** (the putting down of material) help to create coastal landscapes of deposition.
For example: **longshore drift** (zig-zag movement of sediment along the beach due to prevailing winds pushing waves and swashing sediment up the beach at an angle, backwash dragging sediment down the beach under gravity). This continues until a change in the direction of the coast forming a spit, bar across an estuary with a lagoon, or a tombolo connecting to an island.



Sub-aerial processes (actions occurring above sea level). They act on the cliff face after the waves have **undercut** the bottom of the cliff.

Mass movement (large scale movement of sediment usually downslope) e.g. **rock falls** (weathered areas undercut, unsupported areas collapse), **slumping** (after long periods of rain, which seeps through soil and permeable rocks, where this meets an impermeable rock e.g. clay the saturated rock **slumps** and **slips**, often in a **rotational** matter along a curved surface) and sliding (the movement of a large amount of material along a flat surface e.g. a bedding pain).
Weathering (breakdown of rocks on or near the surface): mechanical (freeze-thaw splitting the rock apart) chemical (salt corrosion and acid rain solution on limestone cliffs), and biological (plants and burrowing animals and nesting birds weaken clifftops and cliff-faces). These processes combine to have an impact on the shape of cliff faces particularly. This again creates a source of beach material (in addition to the riverine and offshore sources).

Christchurch Bay case study



The coastline of Christchurch Bay experiences the full force of waves brought from the Atlantic. These waves have a long fetch, so they are very powerful.
The cliffs on the coastline are made of sandstone and clays, which are easily eroded. This rock type is also very permeable. Water infiltrates easily and saturates the cliffs.
Several rivers in the area flow to the coasts through steep sided coastal gorges known as chines.

Decades of erosion has caused the cliff edge to retreat by tens of metres, and now many buildings are very close to the cliffs. In some cases, residential areas may be only several metres away from the cliff edges.
Coastal defences have failed in some areas, and this has led to accelerated erosion in other areas.
Poor planning around Barton-on-Sea has created an issue referred to as 'terminal groyne syndrome". This is where groynes trap sediment from one side of the beach whilst starving the other side.

Was möchte ich ändern? – What would I like to change?		
Probleme und Lösungen	problems and solutions	
ändern	to change, alter	
aufgeben	to give up	
essen	to eat	
(sich) fühlen	to feel	
gehen	to go, walk	
hoffen	to hope	
laufen	to run	
lösen	to solve	
planen	to plan	
reduzieren	to reduce	
schlafen	to sleep	
schwimmen	to swim	
verbringen	to spend (time)	
versuchen	to try	
verursachen	to cause	
vermeiden	to avoid	
werden	to become	

Was möchte ich ändern? – What would I like to change?		
der Bildschirm	screen, monitor	
der Freund	friend, ally, boyfriend	
die Freundin	female friend, girlfriend	
die Portion	portion, helping, serving	
die Schule	school	
die Woche	week	
die Zeit	time	
das Bett	bed	
das Fitness-zentrum	gym	
das Gemüse	vegetables	
das Handy	mobile phone	
das Obst	fruit	
das Problem	problem	
das Stück	piece	
die Unterstützung	treatment, support	

Gute Tage, schlechte Tage – Good days, bad days		
das Wohlbefinden	well-being	
Wenn ich … hätte, würde ich …	If I had … I would …	
Wenn ich … wäre, würde ich ….	If I was …, I would …	
mehr Sport treiben	do more sport	
ein Instrument lernen	learn an instrument	
öfter ins Kino gehen	go to the cinema more often	
mit meinen Eltern (darüber) sprechen	talk to my parents (about it)	
besser schlafen	sleep better	
weniger gestresst sein	be less stressed	
mich besser konzentrieren können	be able to concentrate better	
glücklich / glücklicher sein	be happy / happier	
mich besser fühlen	feel better	
mehr Energie haben	have more energy	
spazieren gehen / sich bewegen	go for a walk/stroll/ to exercise	
helfen	help	

Das finde ich wichtig – I find that important		
Das Wichtigste im Leben	The most important thing in life	
Für mich ist/sind … sehr wichtig / das Wichtigste	For me … is/are very important / the most important	
die Gesundheit	health	
die Freizeit	free time	
die Karriere	career	
die Ruhe	silence / peace	
persönliche Werte	personal values	
Beziehungen	relationships	

Neulich habe ich … beschlossen / mich entschieden / versucht … - Recently, I decided / decided / tried …		
In der Zukunft habe ich vor, / plane ich / hoffe ich …	In the future I intend / plan / hope …	
gesund / gesünder zu essen	to eat healthy / healthier	
öfter Sport zu machen / treiben	to do more sport	
früher ins Bett zu gehen	to go to bed earlier	
mehr Energie zu haben	to have more energy	
mehr Zeit mit der Familie zu verbringen	to spend more time with the family	
weniger Stress im Leben zu haben	to have less stress in my life	

Wo wohnst du? – Where do you live?		
Ich wohne …	I live …	
in einem Dorf	in a village	
in einer Kleinstadt / Großstadt	in a small town / a city	
in der Stadtmitte	in the town centre	
in den Bergen	in the mountains	
am Stadtrand	on the outskirts	
auf dem Land	in the countryside	
an einem See	by a lake	
an der Küste	on the coast	
das liegt …	it lies / is situated …	
im Norden von …	in the north of …	
im Osten von …	in the east of …	
im Süden von …	in the south of …	
im Westen von …	in the west of …	

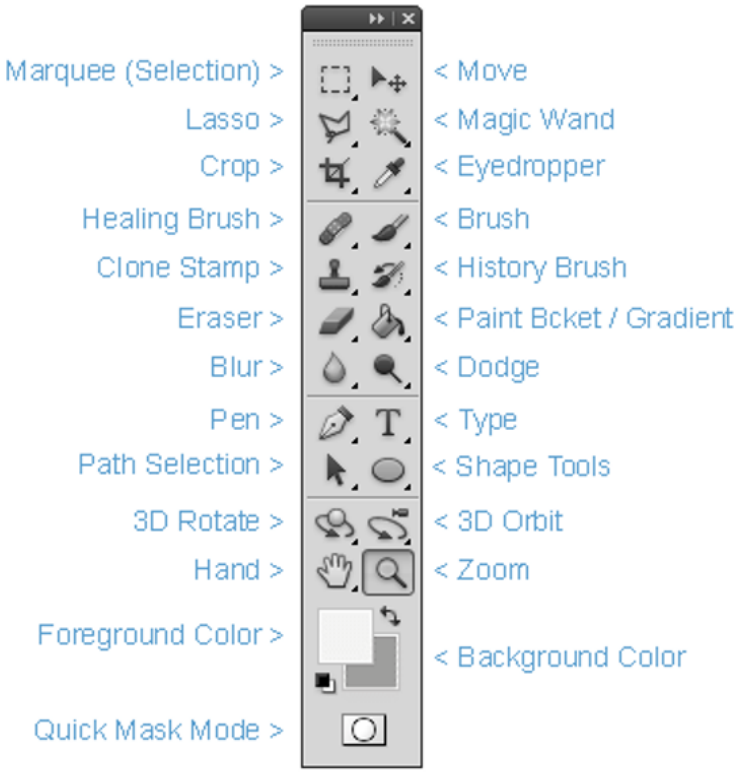
Wo wohnst du? – Where do you live?		
der Ort ist …	the place/location/ town is …	
der Bereich / die Gegend / Region ist	the area/region is …	
die Landschaft ist …	The countryside/ landscape is …	
die Umgebung ist …	The surroundings are	
besonders	particularly, especially	
echt/extrem	really/extremely	
ganz/relativ	quite/relatively	
alt/neu	old/new	
sauber/schmutzig	clean/dirty	
schön	beautiful	
historisch/modern	historic/modern	
ruhig/laut	quiet/noisy	
sicher	safe	

Es gibt … - There is/are		
(k)einen Flughafen	(no) airport	
(k)eine Bank	(no) bank	
(k)eine Bibliothek	(no) library	
(k)eine Post	(no) post office	
(k)eine Schule	(no) school	
(k)eine Universität	(no) university	
(k)ein Fitness-zentrum	(no) gym	
(k)ein Geschäft	(no) shop	
(k)ein Kino	(no) cinema	
(k)ein Krankenhaus	(no) hospital	
(k)ein Museum	(no) museum	
(k)ein Schloss	(no) castle	
(k)ein Schwimmbad	(no) swimming pool	
(k)ein Stadion	(no) stadium	
(k)ein Theater	(no) theatre	
viel Verkehr	a lot of traffic	

Picture description		
Im Bild/Im Foto	On the photo	
Ich/Man kann … sehen	I can see/You can see	
Im Bild gibt es	In the picture there is	
Auf der linken/ rechten Seite	On the left/on the right	
Im Hintergrund	In the background	
Im Vordergrund	In the foreground	
Das Foto wurde ..... gemacht	The photo was taken	
Sie spielen, essen , tragen	They are playing, eating, wearing	
USE PRESENT TENSE TO SAY WHAT PEOPLE ARE DOING – "NO IS-ING" "AM-ING" OR "ARE-ING"		

Verkehrsmittel – means of transport		
Man kann / muss / soll	You can / have to / must …	
reisen/fahren	travel / drive	
fliegen	fly	
mit dem Auto/ Wagen	by car	
mit dem Boot/ Schiff	by boat/ship	
mit dem Bus	by bus	
mit dem Elektroauto	by electric car	
mit dem Fahrrad	by bike	
mit dem Flugzeug	by plane	
mit dem Reisebus	by coach	
mit dem Zug / der Bahn	by train/rail	
mit der Straßenbahn	by tram	
in die USA	to the USA	
in die Stadtmitte	to the town centre	
nach Hause	home	
zum Flughafen/ Bahnhof	to the airport/ station	
zur Schule	to school	
, weil ich um die Ecke wohne	because I live around the corner	
, weil wir weit von der Schule wohnen	because we live far from school	
, weil die Schule ganz nah ist	because school is quite close	
, weil es eine lange Fahrt ist	because it is a long journey	
, weil die Reise /Fahrt … dauert	because the journey takes …	
, weil es am schnellsten geht	because it is the quickest way	

Keyword	Look, cover, write, check	tick
Colour wheel	A color wheel is a tool that helps you to combine appropriately the colors, and its represented by a circle formed by primary, secondary, and tertiary colors.	
CMYK	CMYK Color model stands for Cyan, Magenta, Yellow, and Key (Black). CMYK is the colour model used for printing.	
Subtractive colours	The CMYK model works by partially or entirely masking colours on a lighter, usually white, background. The ink reduces the light that would otherwise be reflected. Such a model is called subtractive because inks "subtract" the colours red, green, and blue from white light.	
RGB	RGB Color model stands for Red, Green, and Blue and is mainly used for electronic displays including computers and smartphones and is based on the additive color model of light waves.	
Additive Colour	The additive color model describes how light produces color. The additive colours are red, green and blue, or RGB. Additive color starts with black and adds red, green and blue light to produce the visible spectrum of colours. As more color is added, the result is lighter.	



Graphic Communication Year 10 Term 3

Keyword	Look, cover, write, check	Tick
Value	Value has to do with how dark or light the colour is, ranging from black to white.	
Hue	Hue either refers to is a pure colour or the dominant colour. If black is added to a hue, it becomes a shade and if white is added it becomes a tint.	
Saturation	Saturation refers to the intensity of a colour. Highly saturated colours appear more vibrant and bolder, whereas less saturation appears dull.	
Eyedropper tool	The eyedropper tool is used across various programs like Adobe illustrator and Photoshop. The tool allows the user to select a specific colour from an area on the screen.	
Vector	Vector graphics are quite different from raster. You can make them any size, big or small, without losing quality.	
Raster	There's a reason small images lose quality when you enlarge them. It's because they're made up of thousands—sometimes even millions—of tiny little pixels. The word for this type of image is raster.	

Bournemouth School: History Department: Knowledge Organiser: Year 10 Elizabeth (1) 1558 - 1569

Timeline of key events:

1558: Accession to the Throne
1559: Religious Settlement;
1559: Treaty of Cambresis;
1559: Scottish Prot. Lords' rebellion
1561: Mary Queen of Scots returns to Scotland from France
1563: King Philip II bans the importation of English cloth to the Netherlands
1565: Mary QoS marries Henry Stuart, Lord Darnley
1566: Mary's son James is born.
1**566**: Dutch Revolt begins
1567: Darnley murdered; Mary QoS marries Bothwell; she abdicates and is imprisoned.
1567: Spanish Fury: Alba sends 10,000 Spanish troops to crush Dutch Revolt
1568: Mary QoS escapes captivity and flees to England.
1568: Genoese Loan incident; Eliz took gold from Sp. ships sheltering in English ports
1569: Norfolk Plot and Revolt of the Northern Earls.
1569: Mary QoS placed under house arrest in England.

Key terms/definitions (4 SPaG marks on this unit for spelling and punctuating with consistent accuracy, controlled use of grammar, and use of a wide range of specialist terms)

Term	Definition	✓
Accession	The term given for when a monarch (King or Queen) takes the throne	
Gentry	About 2% of the population; they were wealthy landowners; Knights & Squires	
Nobility	Hereditary titles, passing from father to eldest son. Dukes, Barons or Earls.	
Merchants	a person involved in trade, especially one dealing with foreign countries	
Court	The community of people who lived with the Queen including advisers and officials	
Privy Council	The committee of ministers appointed by the Queen to advise her	
Parliament	House of Commons and Lords: summoned by the Queen for raising taxes / laws	
Lords Lieutenant	Responsible for governing each county and organising the local army / militia	
Justices of the Peace	Usually from the gentry; appointed by Monarch to keep law and order. Carried status.	
Yeomen	Farmers who owned their own land; some growing quite wealthy in Elizabeth's reign	
Vagrants	Homeless and jobless people who wandered the country and could turn to crime	
Patronage	Providing someone with an important job or position or finance; to be a 'patron'	
Divine Right	The belief that the Monarch has a God-given right to inherit the Throne	
Crown	The refers to the Monarch and their government	
Royal Prerogative	Some areas where only Elizabeth had the right to decide upon, such as marriage	
Succession	The issue of who was going to succeed the Throne after the death of current Monarch	
Legitimacy	The right to inherit, based on being born to reigning parents who were married	
Crown Debt	Money owed by the crown; £300,000 in 1558 due to costly wars & selling of Crown land	
Auld Alliance	The term given to the traditional friendship between France and Scotland	
Cateau-Cambresis	The Treaty of 1559 that marked the end the war with France and the loss of Calais	
Religious Settlement	Elizabeth's Act to create a new and moderate religious compromise with the intention of creating a form of Protestant worship acceptable to Catholics too.	
Act of Supremacy	The law which made Elizabeth supreme governor of the Church of England	
Act of Uniformity	The law given to setting up an agreed appearance for churches and services	
Royal Injunctions	The term for the set of instructions from Queen to clergy, including how to worship	
Papal Bull	Term given to a public decree or charter from the Pope, Head of the Catholic Church	
Priest holes	Hiding places used by priests in many Catholic houses when facing persecution by law	
Recusants	Term given to those who refused to attend services of the Church of England	
Puritans	Protestants wanting to purify the Church of England from Roman Catholic practices	
Crucifix	A representation of Jesus Christ dying on the cross	
Vestments	Elaborate clothing worn by clergy during church services	
Counter-Reformation	The name given to the active fight-back to strengthen Catholicism in Europe	
Dutch Revolt	A reaction in the Netherlands to increased interference by Spain in Dutch govt	
Sea Beggars	Name given to Dutch rebels who used the English Channel to attack Spanish ships	
Spymaster	Name given to Sir Francis Walsingham, Elizabeth's Secretary of State	
Plots	Secret plans to overthrow Elizabeth: Northern Earls, Ridolfi, Throckmorton, Babington	

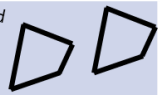
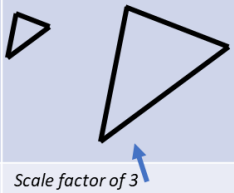
Bournemouth School: History Department: Knowledge Organiser: Year 10 Paper 2 Elizabeth (2) 1569 - 1588

Timeline of key events:

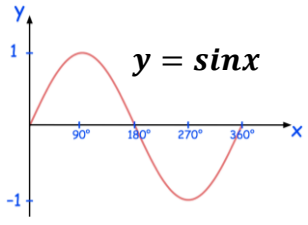
1569: Norfolk Plot & Revolt of the Northern Earls
1570: Papal Bull against Elizabeth
1571: Ridolfi Plot
1572: Drake attacked Spanish at Nombre de Dios in Panama
1574: first Jesuits priests smuggled into England
1576: 'Spanish Fury' sees the sacking of Antwerp, uniting Dutch against Spanish
1577: Don Juan honours the Pacification of Ghent; Spanish army arrive 6 months later
Dec 1577: Drake's circumnavigation of the globe begins
1579: Duke of Parma put in charge of The Netherlands
Feb 1579: Drake reaches Callao, Peru; attacks ships including the Cacafuego
Nov 1580: Philip takes control of Portugal
Nov 1580: Drake returns from circumnavigating the globe
1581: Drake Knighted on Golden Hind
1582: Duke of Alencon returned to Netherlands, backed by Elizabeth's money
1583: Alencon had failed in the Netherlands
Nov 1583: Throckmorton Plot uncovered
1584: Death of Alencon leads to formation of a Catholic League in France
July 1584: Death of William of Orange.
Dec 1584: Treaty of Joinville
10th Aug 1585: Treaty of Nonsuch
Jan 1586: Earl of Leicester accepts title 'Governor General of the Netherlands'
19th -22nd April 1587: Drake's raid on Cadiz
Late 1587: Leicester recalled to England
29th July 1588: Armada spotted in Channel
8th Aug 1588: Battle of Gravelines
Sept 1588: Armada defeated

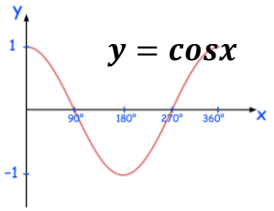
Key terms/definitions (4 SPaG marks on this unit for spelling and punctuating with consistent accuracy, controlled use of grammar, and use of a wide range of specialist terms)

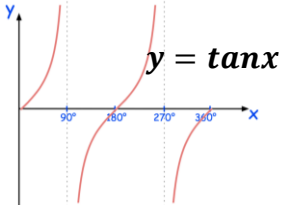
Term / key people	Definition / roles explained	✓
Norfolk Plot	A Court plan to marry M QoS to Duke of Norfolk, a Protestant, & solve succession problem	
Revolt of Northern Earls	Plot supported by ancient noble Catholic families to restore Catholicism & their power and influence lost since the 1558 Settlement	
Ridolfi Plot	Plot led by Ridolfi (Pope's banker) to assassinate Elizabeth, replace with MQoS who would marry Duke of Norfolk. Norfolk subsequently executed.	
The Spanish Fury	A mutiny of Spanish forces in Netherlands leading to violence in Antwerp	
'Pacification of Ghent'	Drawn up by all 17 Dutch provinces, both Protestant and Catholic demanding the expulsion of Spanish troops from the Netherlands, political autonomy & no more religious persecution,	
Circumnavigation of the globe	Drake's famous voyage of exploration, Dec 1577 – Sept 1580, where he sailed around the globe, on the Golden Hind and 4 other ships	
Duke of Parma	Spanish military general, sent to Netherlands by Philip & made some headway against the rebels	
Cacafuego	A Spanish treasure ship captured and raided by Drake off the coast of Peru in 1579	
Duke of Alencon/ Anjou	Heir to French throne; possible suitor for Elizabeth; fought the Spanish in Netherlands	
Throckmorton Plot	Plot aiming to free Mary Queen of Scots and make her Queen instead of Elizabeth	
William of Orange	Leader of Dutch Protestant rebels; killed by a Catholic supporter of Philip II of Spain	
Treaty of Joinville	Agreement between French Catholic League & Philip II securing Spanish help against French Protestants	
Treaty of Nonsuch	Signed by Elizabeth and Dutch Protestants, effectively put England at war with Spain	
Earl of Leicester	Robert Dudley; by accepting title of Governor General of Netherlands, he angered Elizabeth	
Raid on Cadiz	'Singeing of the King of Spain's beard'; Drake sailed into Cadiz harbour and destroyed 30 ships and many Spanish provisions	
Armada	Spanish naval fleet/ warships;130 ships sailed with the intent of invading England in 1588	
galleons	Large sailing ship with several decks, used originally as a warship and later for trade	
Duke of Medina - Sidonia	Commander of the Armada; inexperienced in naval battles and reluctant to lead the Armada	
Fire-ships	Naval tactic using old wooden ships packed with flammable material to scatter the Armada	
Gravelines	Naval battle in English Channel; the wind direction scattered the Armada, breaking their crescent formation and Spanish out-moved by the faster, more mobile English ships	
The New World	16th Century name for North and South America	
Ambassador	An official envoy representing a state or country	
Astrolabe	An instrument used by sailors to calculate their position by the stars	
Bullion	Bars of gold and silver	
Jesuits	Catholic missionary priests who came to England to restore Roman Catholicism	

Keyword		Definition	Example(s)
Congruent		Congruent shapes are exactly the same shape and size	*All angles and sides lengths are the same* 
Congruent Triangles		There are four conditions for two triangles to be congruent SSS – all three sides equal SAS – two sides and the included angle are equal ASA – two angles and a corresponding side are equal RHS – right angle, hypotenuse and one other side are equal	
Similar		Two shapes are similar if one is an enlargement of the other	
Scale factor		The scale factor is how much the shape has been enlarged by	*Scale factor of 3*

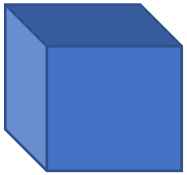
Keyword		Definition	Example(s)
Asymptote		A line which a graph tends towards but never reaches.	*y = tan x has asymptotes at x = ±90°, x = ±270°,...*
Bearings		Angles with a given direction. Always measured clockwise from North and written using 3 digits.	*093° 125°*





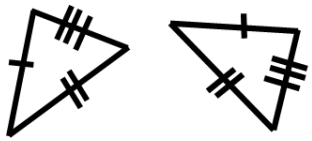


If two 3D shapes are similar and the scale factor of their lengths is k

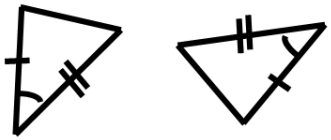


- The lengths are multiplied by k
- The surface area is multiplied by k^2
- The volume is multiplied by k^3

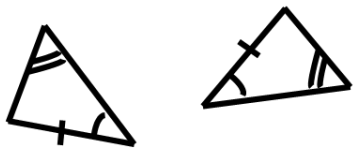
SSS



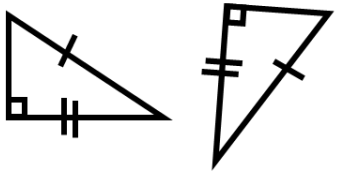
SAS



ASA



RHS



	°0	30°	45°	60°	90°
sin x	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
cos x	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0
tan x	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	n/a

☐ $Area\ of\ Triangle = \frac{1}{2}abSin\ C$

SINE RULE

☐ $\frac{a}{Sin\ A} = \frac{b}{Sin\ B} = \frac{c}{Sin\ C}$

☐ $\frac{Sin\ A}{a} = \frac{Sin\ B}{b} = \frac{Sin\ C}{c}$

COSINE RULE

☐ $a^2 = b^2 + c^2 - 2bcCosA$

☐ $CosA = \frac{b^2 + c^2 - a^2}{2bc}$

TRANSFORMATIONS OF FUNCTIONS

☐ $y = -f(x)$: represents a refection in the x-axis

☐ $y = f(-x)$: represents a refection in the y-axis

☐ $y = -f(-x)$: represents a refection in both axes, equivalent to a rotation of 180° about (0,0).

☐ $y = f(x) + a$: represents a translation through $\begin{pmatrix} 0 \\ a \end{pmatrix}$

☐ $y = f(x + a)$: represents a translation through $\begin{pmatrix} -a \\ 0 \end{pmatrix}$

Bournemouth School – Knowledge Organiser – Year 10

MATHS

Bournemouth School music department

Year **10**
Unit **Bach: 3rd Movement from Brandenburg Concerto no. 5 in D** major

Context

Affect The prevailing mood in a Baroque movement or piece

Baroque the dominant style of Western classical music composed from about 1600 to 1750.

Concerto grosso a concerto for more than one soloist

Dance suite A Baroque collection of movements in dance rhythms.

Solo concerto A concerto for a single instrument accompanied by orchestra

Trio sonata A Baroque piece for two melody instruments and continuo

Dynamics

Terraced Dynamics When the dynamics are either forte or piano, with no gradual changes. Common in Baroque music.

Rhythm

Compound time signature when the beat subdivides into 3 rather than 2

Triplets Three notes in the space of two

Texture

Antiphonal Music performed alternately by two groups which are often physically separated.

Basso continuo literally continuous bass line. Accompaniment played by a melodic bass instrument, often a cello, and a chordal instrument such as harpsichord, lute or organ.

Canon parts copy each other in exact intervals, often at the fifth or octave.

Contrapuntal When two melodies are played at the same time and interweave—almost the same as polyphonic

Counterpoint the combination of two or more melodies with independent

Dialoguing Instruments in dialogue—playing one after the other, swapping ideas

Independent parts Instruments or voices doing different things—not doubling or simply harmonising

Monophonic A musical texture with a single line

Passagework a constantly moving passage, often in patterns of quick notes and including sequences and scales

Polyphonic More than one melody at once, or entering at different times so that they overlap

Stretto entries of the subject closer together than before in a fugal recapitulation

Tutti All parts plying at the same time

Structure

Fugal exposition The initial statements of subject and answer in a fugue

Fugue Contrapuntal piece with exposition, development and recapitulation

Ternary form Simple ABA structure

This QR code will take you to a Spotify playlist with audio examples of many of the concepts covered on this sheet and in lessons. You will find it helpful to listen to these as you learn.

Bournemouth School music department

Year **10**
Unit **Bach: 3rd Movement from Brandenburg Concerto no. 5 in D** major

Melody

Answer In a fugue, the subject repeated in response to its original appearance, usually a fourth or fifth lower or higher than the preceding subject. If it is an exact transposition of the subject it is a real answer; if not it is a tonal answer.

Appoggiatura An ornament often referred to as a 'leaning' note. An appoggiatura usually takes half the length of the main note and is a step higher.

Conjunct Movement by step

Countersubject the melody played after the subject or answer

Motif A short melodic phrase of just a few notes

Ornament notes that decorate a melody

Sequence repetition of a musical idea at a higher or lower pitch

Subject the main theme of a fugue

Variant A phrase whose shape resembles the original

Instrumentation

Concertino the smaller group of soloists in a concerto grosso

Ripieno the larger group in a concerto grosso

Tonality

Relative minor The minor key based on the sixth note of the major scale

Harmony

Cadential A progression of chords forming a cadence

Circle of fifths A series of chords or keys in which the root or tonic is a fifth lower (or a fourth higher) than the previous one.

Consonant Intervals or chords that sound pleasant together

Dominant preparation A passage focused on the dominant chord to create expectation of a return to the tonic.

Dominant seventh Chord V with added minor 7th

Figured bass The numbers a chord instrument player in the basso continuo would read.

Harmonic rhythm the rate at which the chords change

Harmonic sequence When a chord sequence is immediately repeated at a higher or lower pitch

Imperfect cadence An incomplete sounding cadence ending on chord V

Interrupted cadence V-VI—sounds like it's going to be a perfect cadence, but gets interrupted

Inversions triads with the third (1st inversion) or fifth (2nd inversion) in the bass

Pedal a sustained or repeated note in the bass

Perfect cadence V-I

Suspension Prolonging a note to create dissonance with the next chord

This QR code will take you to a Spotify playlist with audio examples of many of the concepts covered on this sheet and in lessons. You will find it helpful to listen to these as you learn.

Keyword	Learn	✓
Addiction	An inability to stop doing or using something, especially something harmful: drug addiction.	
Habit	A settled or regular tendency or practice, especially one that is hard to give up	
Internal influence	Internal influences include: desires, likes, dislikes, personal values and perceptions of social norms.	
External influence	External influences include: community members, family, culture and traditions, friends, technology, and the media.	
Carcinogenic	Something that can cause or promote cancer, a disease of abnormal cell growth and spread.	
Toxic	Poisonous, very unpleasant or unacceptable, something causing you a lot of harm and unhappiness over a long period of time:	
Stimulant	A substance that raises levels of physiological or nervous activity in the body.	
Passive smoking	The involuntary inhaling of smoke from other people's cigarettes, cigars, or pipes. Passive vaping may also cause offence or harm.	
Drug	A substance which has a physiological effect when ingested or otherwise introduced into the body.	

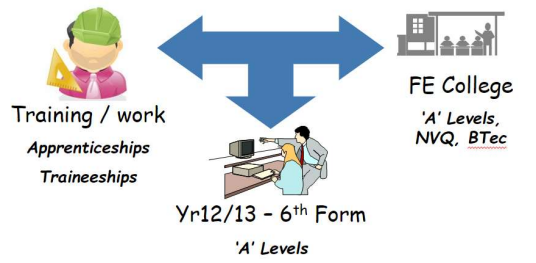
Help and support:
ChildLine: Phone: 0800 1111
www.childline.org.uk
www.childline.org.uk/info-advice/you-your-body/drugs-alcohol-smoking/smoking
www.nhs.uk/live-well/quit-smoking/quitting-smoking-under-18s-guide
Young Minds:
www.youngminds.org.uk
Samaritans: Phone: 116 123
www.samaritans.org
Talk to frank – drug and substance misuse support:
https://www.talktofrank.com
In a crisis, text 'Shout' to 85258

Useful Careers Websites

The **Unifrog** platform is designed to support learners in making the most informed decisions about their futures and has a range of tools that are suitable for all year groups. Each student has their own personal account that provides a wide range of information related to their interests and aspirations.
www.unifrog.org

Information on apprenticeships, including a range of different schemes:
https://amazingapprenticeships.com/
www.gov.uk/apply-apprenticeship

General careers information:
https://careerpilot.org.uk/
www.nationalcareers.service.gov.uk
www.prospects.ac.uk/job-profiles



Chapter 4 — Sports Psychology

3.2.1.1– Classification of skills | Tick

Skill — a learned action or behaviour, with the intention of bringing about pre determined results, with maximum outlay of time and energy.

Ability — an inherited, stable trait that determines an individual's potential to learn or acquire a skill.

Trait — distinguishing qualities or characteristics belonging to a person

Classification of skill

Basic skill — a simple skill that doesn't require much concentration.

Complex skill — a skill that requires a great deal of concentration and coordination to perform.

Open skill — a skill that is performed in a certain way to deal with changing or unstable environments.

Closed skill — a skill that is not affected by the environment or the performers in it. The skill tends to be done the same way each time.

Self paced skill — a skill that is started when a performer decides to start it. The speed, rate or pace of the skill is controlled by the performer.

Externally paced skill — a skill that is started because of an external factor. The speed, rate or pace of the skill is controlled by external factors, such as an opponent or the environment.

Gross movement skill — a skill that uses large muscle groups to perform big, powerful movements.

Fine movement skill — a skill involving small, precise movements, showing high levels of accuracy and coordination. It involves the use of a small group of muscles.

3.2.1.2- Goals and Targets

Performance goals — personal standards to be achieved. Performers compare themselves against what they have already done or suggest what they are going to do. There is no comparison with other performers.

Outcome goals — goals that focus on the end result, on winning.

SMART Targets

S — Specific — the target must be specific to the demands of the sport, muscles used or movements used

M — Measurable — it must be possible to measure whether the specific target set has been met

A — Accepted — the target must be accepted by the performer and others involved in training and competition, such as a coach

R — Realistic — the target must actually be possible to complete and attain

T — Time-bound — the target covers a set period of time so that the performer knows whether or not they have achieved it.

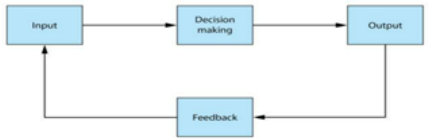
3.2.1.3- Information Processing

1) **Input** — data received from the display. The information will be received via the senses.

2) **Decision Making** — The selected data is analysed and an appropriate response is selected. This means the performer will access memories of similar experiences and will choose the appropriate response accordingly.

3) **Output** — The decision is acted upon. Information is sent to the performers brain to the working muscles to carry out the required response.

4) **Feedback** — Data is received in response to the output. This can become the input for future decisions, or can be used during future decision making. Intrinsic feedback — information a performer receives from within.



Tick

3.2.1.4- Guidance and Feedback on Performance

Guidance — a method of conveying information to a performer. Guidance can be verbal, visual, manual or mechanical.

Feedback — the information a performer receives about their performance.

Visual guidance

When a performer can see the skill being performed or practised.

Advantages	Disadvantages
Useful for all levels of performer	The demonstration must be good quality
Very useful for beginners	Some are too complex to demonstrate
Vision is most peoples dominant sense	It is not effective if performers aren't paying attention
It is easy to follow and highlight key areas	
Performers can copy what they have seen	

Verbal Guidance

Where someone explains to you in detail how to perform a skill or action.

Advantages	Disadvantages
It is especially useful for high level performers	It can result in an information overload
Good way of highlighting key teaching points	It can be boring
Useful for sharing basic information	Sports arenas are often noisy so it can be hard to hear what is being said.
Questioning can often make a performer think	Complex things are often difficult to explain verbal-

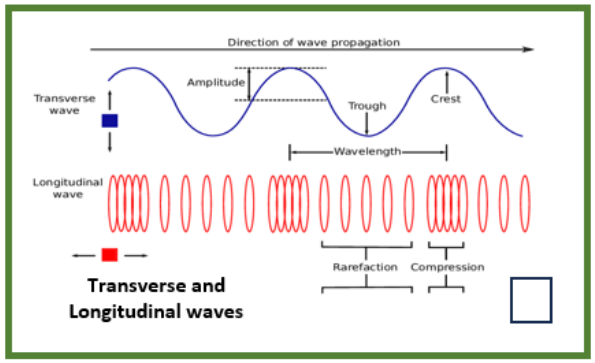
Chapter 6 – Waves

Keyword	Learn	✓
Mechanical Wave	Disturbances that travel through matter, transferring energy from one place to another.	
Electromagnetic wave	Transverse waves. Their vibrations or oscillations are changes in electrical and magnetic fields at right angles to the direction of wave travel.	
Transverse wave	In transverse waves, the vibrations are at right angles to the direction of wave travel.	
Longitudinal wave	In a longitudinal wave, the vibrations are parallel to the direction of travel.	
Amplitude	The maximum displacement of a vibration or oscillation, measured from the position of equilibrium.	
Wavelength	The length of one wave measured in metres.	
Frequency	The number of waves passing a point in one second.	
Law of reflection	angle of incidence = angle of reflection, i = r.	
Refraction	When light moves from less dense to more dense mediums the angle of refraction is less than the angle of incidence (and vice versa).	
Ultrasound	Any sound wave that has a frequency higher the range of human hearing, so above 20 000 Hz (20 kHz).	
Specular reflection	When all parallel rays of light are reflected in the same direction (this happens with a plain, smooth reflector like a mirror).	
Diffuse	When parallel light rays are reflected in multiple directions.	

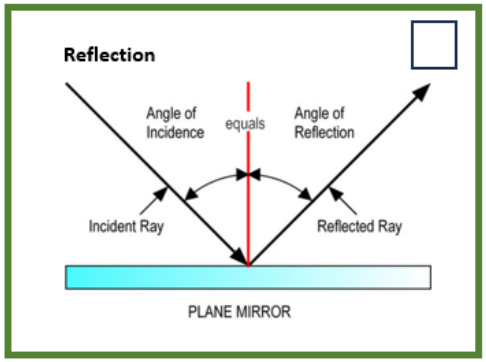
Equations:

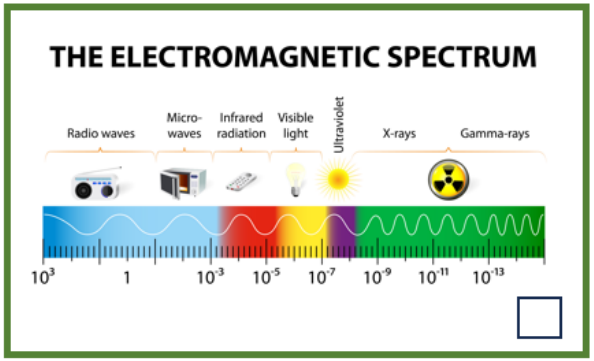
Wave Speed (m/s) = wavelength (m) x frequency (Hz), $v = \lambda \times f$

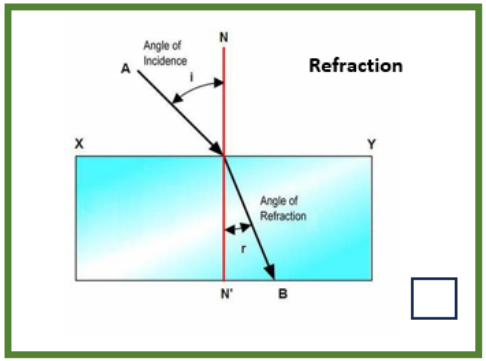
Frequency (Hz) = 1/ the period of the wave (s), $f = 1 / T$



Transverse and Longitudinal waves



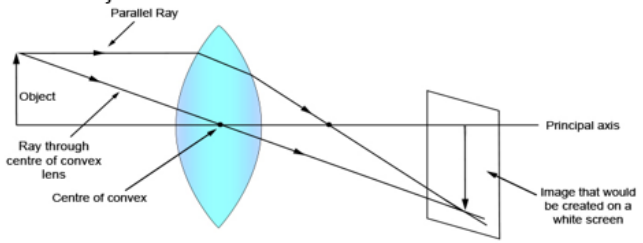




Drawing ray diagrams – the rules

Draw a lens (be it concave, convex or any other).
Draw an object on the right or left side of the lens.
Draw a minimum of two rays starting from a single point (top of the object).
Draw a ray from the object to the lens that is parallel to the principal axis. Once through the lens, the ray should pass through the principal focus.
Draw a ray which passes from the object through the centre of the lens.
Locate and mark the image of the top of the object.
Repeat the process for the bottom of the object

A (theoretical) perfect black body absorbs all radiation and is a perfect emitter.



Worship

Liturgical worship → church service that follows a set structure and pattern

Non-liturgical worship → church service that does not follow a set text or ritual

Why do Christians worship? To praise God, give thanks, for forgiveness, to strengthen relationship with God

Liturgical worship	Non-liturgical worship
takes place in a church	no set order
set prayers with set response	Services follow themes

Prayer

Set prayer → prayers that have been said more than once and written down, for example the Lord's Prayer

Informal prayer → a prayer that is made up by the individual using his/her own words

Why is prayer important?

- Allows Christians time to reflect, find peace, allows them to communicate with God
- The Lord's prayer is important as it reminds Christians to forgive others in order to be forgiven
- Key quote → **"Our Father, who art in heaven"**

Baptism

Infant baptism → is for babies and young children

Believers' baptism → people who are old enough to make the decision to be baptised

Why are people baptised? To become a member of the Church, to be cleansed of sin, follow in Jesus' footsteps

Believer's baptism	Infant baptism
Attend baptism classes	Parents make promises
Gives a brief testimony	Removes original sin

Key quote → **"Get up, be baptised and wash your sins away" Acts 22:16**

Holy Communion and celebrating it

Holy Communion → sacrament that uses bread and wine to remember sacrificial death of Jesus. Remembers the events of the Last Supper

Different understandings of Holy Communion

Catholic → transubstantiation (bread and wine actually becomes the body and blood of Jesus)

Protestant → see the bread and wine as symbolic to remember Jesus' sacrifice

How it is it celebrated? In Catholic Church the priest gives the bread and wine to people, in Orthodox Church the priest receives bread and wine from church members. **"Do this in remembrance of me"**

Pilgrimage

Pilgrimage → religious journey of moral and spiritual importance

Lourdes – France → in the South West of France. Bernadette had numerous visions of the Virgin Mary who told her to dig for spring water. The water is believed to have healing powers and miracles are said to happen there. Pilgrims bathe in the water and there is a big focus on the sick and disabled.

Iona – island off the coast of Scotland → Ecumenical community → pilgrims spend time praying, reading the Bible, reflecting and meditating. It is said the veil between earth and heaven is thin here.

Celebrating festivals

Two main festivals in Christianity are Easter and Christmas

Christmas → commemorates the incarnation of Jesus

Ways it is celebrated → carol services, nativity scenes, giving to charity, Midnight Mass, Christmas cards and gifts

Easter → celebrates the resurrection of Jesus from the dead

Ways it is celebrated → On Good Friday there are special services and processions led by a person carrying a cross, Saturday night some churches hold a special service to celebrate the resurrection, Easter Sunday churches are filled with flowers and hymns are sung **"He is Risen!"**

Role of the Church in the local community: Food banks

The Church → the holy people of God, also called the Body of Christ, among who Christ is present and active

A church → building in which Christians worship

What does the Church do? Support projects such as food banks, providing social services and campaigning for justice

The Trussell Trust → runs over 400 foodbanks in the UK, provides food for those in need

The Oasis Project → provides an internet café, CV support and a safe meeting place

Role of the Church in the local community: Street Pastors

Agape → selfless, sacrificial, unconditional love

Jesus taught the importance of helping those in need.

Key quote → **'Faith, by itself, if it is not accompanied by action, is dead' James 2:17 NIV**

Street Pastors

- Volunteers who stroll the streets at night helping those that are drunk and supporting the police and local councils with anti-social behaviour.
- They listen to people's problems and give them advice.

Mission and evangelism

Mission → vocation or calling to spread the faith

Evangelism → showing faith in Jesus by example or by telling others

The Great Commission Jesus instructs his disciples to go and spread the gospels and make disciples of others through baptism. **"Go and make disciples of all nations."**

Missionary work

Aims of missionary work is to persuade people to accept Jesus as their Saviour. Alpha is an example of evangelism in the UK. It is an introductory course to Christianity for those that are interested.

Church growth and the importance of the worldwide Church

The growth of the Church

- Growing rapidly in South America, Africa and Asia but not in the US, Europe and the Middle East. Christ for all Nations is an example of an organisation that spreads the message

Ways Christians can spread the faith →praying for others to accept God, via social media, fellowship meals, sharing what God has done for them with others

Working towards reconciliation → Church has a mission to restore people's relationship with God and one another.

The Corrymeela community brings people together

Christian persecution

Persecution → hostility and ill treatment

Examples of persecution → paying extra taxes, job discrimination, being forbidden to build churches, attacks on Christian homes, churches and families, including murder

Christian responses to persecution

- To stand up against persecution
- Persecution can strengthen faith – **'if one suffers, every part suffers with it'**
- They are encouraged to show love and forgiveness towards persecutors

The Church's response to world poverty

Helping those in need

- Jesus taught it was important to help others and often taught his message through parables
- The parable of the Rich man and Lazarus sees a rich man sent to hell for not helping the poor

Christian charities that help those in poverty → Christian Aid, Tearfund, CAFOD

What do they do? → Provide short term and long term aid including, food, medical supplies, shelter and sanitation

Body parts		
el cuerpo	body	
la cara	face	
los ojos	eyes	
el pelo	hair	
la nariz	nose	
la garganta	throat	
el diente / los dientes	tooth / teeth	
el corazón	heart	
el pie	foot	
la pierna	leg	
la rodilla	knee	
la espalda	back	
el hombro	shoulder	
el brazo	arm	
el dedo	finger	
el estómago	stomach	
la piel	skin	
los oídos	ears	

Illness & injury		
me duele	it hurts	
me duelen	they hurt	
el dolor	pain	
doler	to hurt	
médico/a	doctor	
doctor/a	doctor	
la medicina	medicine	
una emergencia	emergency	
una farmacia	a pharmacy	
una fiebre	a fever	
una herida	an injury	
un virus	a virus	
enfermo/a	ill	
quemarse	to burn yourself	
sufrir	to suffer	

Giving advice		
debes	you must	
tienes que	you have to	
necesitas	you need to	
descansar	to rest	
ir al médico	to go to the doctor	
comprar medicinas	to buy medicine	
quedarte en casa	to stay at home	
evitar el sol	to avoid the sun	
relajarte	to relax	

Resolutions		
Para ser más sano	To be healthier	
haré (ejercicio)	I will do (exercise)	
tendré (una dieta equilibrada)	I will have (a balanced diet)	
seré (más activo)	I will be (more active)	
cuidaré (de mi salud mental)	I will look after (my mental health)	
beberé (más agua)	I will drink (more water)	
estaré (en forma)	I will be (in shape)	

Imperfect

The imperfect tense is used to talk about habits in the past and to describe things in the past.

-ar verb endings imperfect			
-aba		**-ábamos**	
-abas		**-abais**	
-aba		**-aban**	

-ir / -ir verb endings imperfect			
-ía		**-íamos**	
-ías		**-íais**	
-ía		**-ían**	

Preterite (past) tense

-ar verb endings preterite			
-é		**-amos**	
-aste		**-asteis**	
-ó		**-aron**	

-er verb endings preterite			
-í		**-imos**	
-iste		**-isteis**	
-ió		**-ieron**	

-ir verb endings preterite			
-í		**-imos**	
-iste		**-isteis**	
-ió		**-ieron**	

Simple future tense

To form the simple future, take the **infinitive** verb and add the endings (note: irregular stems – tendré, haré, podré, saldré)

-ar,er & ir verb endings - future			
-é		**-emos**	
-ás		**-éis**	
-á		**-án**	

'Si' (if) clauses

The simple future can be used in 'if' clauses to say what will happen

Si + **present + future**

Si me acuesto más pronto, no estaré cansado.
If I go to bed earlier, I will not be tired.

Las asignaturas		
el dibujo	art	
el teatro	drama	
el español	Spanish	
el inglés	English	
la geografía	geography	
la historia	history	
la música	music	
la religión	P.R.E.	
la educación física	P.E.	
la tecnología	technology	
las ciencias	science	
las matemáticas	maths	
duro/a(s)	hard	
práctico/a(s)	practical	
complejo/a(s)	complex	
pesado/a(s)	annoying / boring	

Adjectival agreement

Adjectives must agree with the noun they are describing (e.g. la historia es divertida / las matemáticas son interesantes).

	Singular		Plural	
	m	**f**	**m**	**f**
Ending in - o	-o	-a	-os	-as
Ending in - e	-e	-e	-es	-es
Ending in a consonant	-	-	-es	-es

¿Cómo son los profesores?		
No pone demasiados deberes	He / she doesn't set too much homework	
Tiene un buen sentido de humor	He / she has a good sense of humour	
Nos deja usar el móvil en clase	He / she lets us use our phones in class	
Escucho al profe con cuidado	I listen to the teacher carefully	
No es demasiado estricto	He / she isn't too strict	
Crea un buen ambiente para los alumnos	He / she creates a good environment for the students	
Nos deja expresar nuestra individualidad	He / she lets us express our individuality	
Siempre entrega los deberes	He / she always turns in homework	

Absolute superlatives

To say 'really [good], 'extremely [expensive] etc., use the absolute superlative.

Add *ísimo/a* to the end of the adjective, and make it agree

Es facilísimo/a = It is extremely easy

If the adjective ends in a vowel, remove it before adding the ending

Son buenísimos/as = They are really good

buenísimo	really good	
malísimo	really bad	
facilísimo	really easy	

Opinion structures

Lo que más / menos me gusta es	What I like the most / least is	
me interesa(n)	I am interested in	
se me da(n) bien	I am good at…	
mi pasión es	My passion is…	
me cuesta(n)…	I find … difficult	

Las reglas de mi insti		
Las reglas / normas	The rules	
Hay que	You have to	
No se debe	You must not	
No se permite	It is not permitted	
Está prohibido	It is prohibited	
Tienes que	You have to	
Llegar a tiempo	Arrive on time	
Respetar a los alumnos	Respect students	
Mantener limpio el patio	Keep the playground clean	
Quedarse sentado durante la clase	Stay seated during the lesson	
Traer aparatos electrónicos personales	Bring personal electronic devices	
Tirar basura al suelo	Throw rubbish on the ground	
Comer / beber en las aulas	Eat / drink in the classrooms	
Ir al servicio sin el permiso	Go to the toilet without permission	

Las reglas – opiniones		
Pienso que	I think that	
Creo que	I think that / I believe that	
Diría que	I would say that	
En mi opinión	In my opinion	
Estoy de acuerdo	I agree	
No estoy de acuerdo	I don't agree	
Mi amigo diría que	My friend would say that	
es justo	it's fair	
no es justo	it's not fair	

GCSE Design Technology
TIMBER 7.5 Stock forms and sizes

Tick	Stock form	Availability/description
	Regular sections i.e. planks	This is sold in a standard range of cross-sectional shapes and sizes – sawmills do this for convenience Designers tend to use these for their products.
	Mouldings	Lengths of timber cut into decorative shapes. Lots of shapes are available for specific purposes i.e. skirting boards, covings, decorative edging etc. Can be expensive.
	Dowels	Wooden rods that are round in cross-section.
	Sheets (a.k.a. boards)	Manufactured boards come in standard sizes: 8 feet by 4 feet (1220mm x 610mm) Different thicknesses are available.

*What is **PSE** timber?*

Planed
Square
Edge

This means that all 4 surfaces have been planed and the corners are left square, as 90°.

*What is **PAR** timber?*

Planed
All
Round

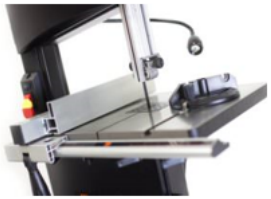
This means that all 4 surfaces have been planed and it will have slightly rounded edges on the corners.

GCSE Design Technology **revision**:
CORE 1.10 Polymers

Thermoforming polymer	Properties	Uses
Acrylic	• Brittle • Easily cleaned • Food safe • Scratches easily	• Shop signs • Car headlights • Baths • Fish tanks
HIPS (High Impact Polystyrene)	• Lightweight • High stiffness • Tough • Scratches easily	• Toys • TV parts • Refrigerator linings
Biopol	• Degrades in soil • Lightweight • Good electrical insulator	• Disposable cups, razors and cutlery • Packaging • Surgical stitches

Thermosetting polymer	Properties	Uses
Polyester resin	• Rigid • Brittle • Good electrical and heat insulator	• Boat hulls • Sports car bodies • Cast for decorative objects
Urea formaldehyde	• Rigid • Hard • Brittle • Heat resistant • Excellent electrical insulation	• Plugs, sockets, light switches (electrical fittings) • Used as an adhesive in manmade boards

GCSE Design Technology:
TIMBER 7.6 *part 1* Manufacturing processes

Tick	Process	Machine Process and description
	Routing 	• A router contains a rotating cutter • Cutters are available in lots of different sizes + profiles • A router can be used to make a straight slot in wood (for purposes such as housing joints) or it can be used with a bearing guided cutter to profile an edge • It removes material quickly but can leave a burnt mark
	Sawing 	• Two possible saws: Band saw and Circular saw • Sawing machines are used to prepare timber quickly • Sawmills are larger versions of circular saws to cut whole tree trunks into planks (for conversion) • Cutting thicker timber on a band saw may result in edges not being square
	Mortising 	• A mortise makes a square hole • This produces the mortise part of a mortise and tenon joint • The round centre of the chisel drills a round hole and the square chisel cuts the corners out to make a square • These produce mortises quickly and accurately but need precise marking out
	Bag press 	• This is used to laminate/veneer wooden parts together • This is a bag that is sealed and has the air sucked out of it to produce a vacuum • Inside the bag, a mould and laminates are inside and when the air is sucked out, the laminates form the shape of the mould. It is held like this until the glue set 24 hours later

GCSE Design Technology **revision**:
CORE 1.09 Papers and boards

Type	Uses	Advantages
Copier paper 80gsm	• Writing • Printing • Drawing	• Takes colour well • Cheap • Available in different colours
Cartridge paper 150gsm	• Drawing • Printing • Art sketch books	• Accepts most types of drawing media • Opaque
Tracing paper 60-90gsm	• Art • Envelope windows	• Strong • Translucent

Type	Uses	Advantages
Folding boxboard	• Cereal boxes • Cartons • Food packaging	• Excellent for scoring • Accepts print well • Inexpensive
Corrugated board	• Protective packaging	• Impact resistant • Strong • Lightweight • Inexpensive
Solid white board	• Book covers • Cosmetic + medicinal packaging	• Strong • Rigid • Accepts print very well

Timetable

	1Mon	1Tue	1Wed	1Thu	1Fri	2Mon	2Tue	2Wed	2Thu	2Fri
Reg										
1										
2										
Break										
3										
4										
Reg										
Lunch										
5										
6										