BOURNEMOUTH SCHOOL

Year 9

Knowledge Organiser 1

Autumn Term: 2024-25

Name:_____

✓Hard Work ✓Discipline ✓Smart Appearance ✓Respect

Bournemouth School

Knowledge Organiser: Year 9 Autumn Term 1

'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.

Keyword	Definition – read, cover, write, review
Clay ◯	Clay is a natural material made up of tiny particles of rock. When clay is mixed with enough water, it feels like soft, gluey mud. Unlike plain mud, however, clay holds its shape. Clay can be pinched, rolled, cut, or built up in layers to form shapes of all kinds.
Kiln ◯	A special oven that gets super hot to turn clay into ceramics.
Slip ◯	Used to join clay using a process of scoring and slip. This can be apply using your hands or a brush. It's made from soft clay and water mixed together to form a paste.
Score ◯	Is when you cross hatch the clay on the surfaces you want to join, this creates a rough area to they apply slip and join the two pieces together.
Coil ◯	Long thin role of clay made by rolling with your hands.
Pinch pot ◯	A bowl made by pinching a sphere of clay.
Slab ◯	A flat "pancake" of clay made hands, a rolling pin or clay press.
Glaze ◯	Is what you paint onto clay when it is fired it becomes glassy.
Ceramics ◯	Is the word for fired clay.
Pottery ◯	Is a ceramic container like a bowl.
Bisque ◯	Clay has been fired once, it can now be glazed or painted.
Bone dry ◯	Room temperature, ready to be fired.
Glaze ware ◯	A ceramic piece that has had glaze applied and has gone through the second firing process.

◯ Please tick circle once you have learnt the definition

When working with clay

- Clay must be thoroughly covered up with PLASTIC to keep it from drying out. This applies to works in progress and wet clay.
- Clay DUST is harmful to breathe in if you are exposed to it for long periods of time, because it contains SILICA.
- Clay can be no thicker than your thumb. For clay to stick together it must be scored and slipped together while the clay is moist or leather hard.
- Tool selection – practise textures on a piece of scrap clay or purpose roll out clay to use as experiments, this will inform AO2.

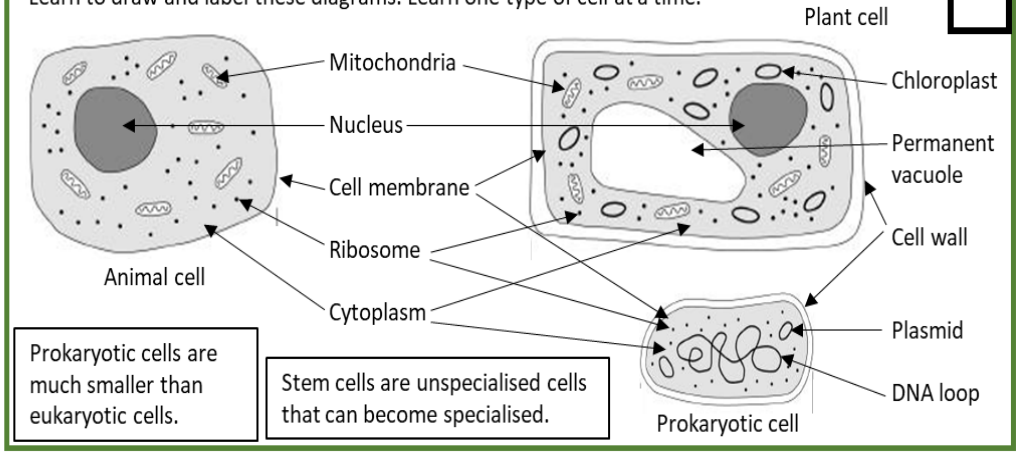
- Slats and roller-slats are used to enable you to roll out an even slab of clay.

B1 Cell Structure

Keyword	Learn	✓
Eukaryotic cell	Plant and animal cells with DNA contained within a nucleus.	
Prokaryotic cell	Bacteria cell with genetic material NOT in a nucleus.	
DNA	The molecule that holds the genetic information in a cell.	
Chromosome	Found in the nucleus of a cell, made of DNA. Usually found in pairs. Humans have 46 chromosomes (23 pairs).	
Stem cell	Undifferentiated cell that can make copies of itself or can become specialized through differentiation.	
Cell differentiation	A cell becomes specialised by developing different sub-cellular structures to enable it to carry out a certain function.	
Magnification	Magnification = size of image ÷ size of real object	
Resolution	The level of detail you can see with a microscope. Higher resolution means seeing smaller detail.	
Light microscope	Maximum magnification of 1500x and low resolution. Cheaper and portable.	
Electron microscope	Higher magnification and resolving power, can see sub-cellular structure. Very expensive.	

Sub-cellular structure - Learn all nine names and descriptions.		✓
Nucleus	Contains genetic material; controls the cell's activities.	
Cytoplasm	A jelly-like substance; site of most of the chemical reactions.	
Cell membrane	Controls the movement of substances into and out of the cell.	
Mitochondria	Site of respiration.	
Ribosome	Site of protein synthesis.	
Chloroplast	Contains chlorophyll; site of photosynthesis.	
Plasmid	A small ring of DNA.	
Cell wall	Strengthens the cell and supports the plant; made of cellulose	
Vacuole	Filled with sap to help keep the cell turgid (stiff) to provide support.	

Learn to draw and label these diagrams. Learn one type of cell at a time.

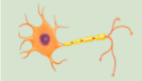
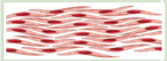
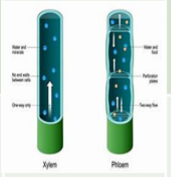


Prokaryotic cells are much smaller than eukaryotic cells.

Stem cells are unspecialised cells that can become specialised.

Sources of stem cells which can be used to help conditions such as diabetes and paralysis.

Embryo : can be cloned and made to differentiate into most types of cell.	Adult bone marrow : can form many types of cell including blood cells.	Meristem : Can differentiate into any type of plant cell, throughout the life of the plant.

Specialised cells - Learn how the structure relates to the function			✓
Nerve cell		Elongated : Transmits electrical impulses over a distance	
Sperm cell		Tail : Allows it to swim Many mitochondria : Releases lots of energy	
Muscle cell		Can contract : Enables movement	
Root hair cell		Large surface area : Increases water and mineral absorption	
Xylem cell		Dead, no end walls, thickened with lignin : Transports water and dissolved ions. (up)	
Phloem cell		Alive : Transports dissolved sugars. (Up and down)	

Purpose of Business		✓
Definition: Factors of production are the resources that business use to provide their goods and services		
Land	the natural resources used in the production of a product such as water, oil, fields or wood.	
Labour	the people that work in the business such as teachers, joiners, builders or doctors	
Capital	the money and equipment used to produce the product or service such as machinery or delivery trucks.	
Enterprise	having an idea of how to use the land, labour and capital to make a profit.	

Business Enterprise and Entrepreneurship		✓
Characteristics of an entrepreneur:	1. Hard working 2. Innovative 3. Organised 4. Willingness to take risks	
Objectives of an entrepreneur:		
1. Flexible working hours 2. To pursue an interest 3. Earn more money 4. Identify a gap in the market 5. Dissatisfaction with current job 6. Be their own boss		

Reasons for starting a business	✓
1. Producing goods 2. Supplying services 3. Distributing products 4. Fulfilling a business opportunity 5. Providing a good or service to benefit others	

Definitions		✓
Good	A physical product such as a car	
Service	An intangible product such as financial advice or a hair cut	
Need	Something that needs to be fulfilled in order for survival	
Want	Products we would like to have that are not essential	
Factors of production	Resources required to produce goods and services. These include Land, Labour, Capital and Enterprise	
Opportunity cost	The benefit lost from the next best alternative foregone	
Primary industry	Made of organisations that use and extract raw materials.	
Secondary industry	Made of organisations that use raw materials in the production of goods.	
Tertiary Industry	Made of organisations who provide a service	
Entrepreneur	Someone who is willing to take risks with the reward of profit.	
Enterprise	The process of identifying and taking advantage of business opportunities.	
Demand	The amount of a good/service that is desired at different prices over a period of time.	

Basic functions and types of business		✓
Four main function of a business	Marketing, Operations, Human Resources, Finance	
There are three main types of business. They operate in the following sectors:	Primary e.g. Farming Secondary e.g. Manufacturing cars Tertiary e.g. Financial Advice	

Dynamic Nature of Business	✓
Business face a constantly changing business environment due to changes in:	
1. Technology 2. Economic situation 3. Legislation 4. Environmental expectations	

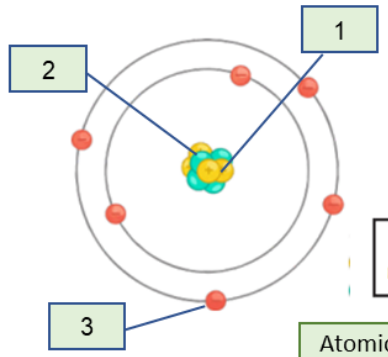
Different Legal Structures					☑
Anyone starting up a business needs to think about what business ownership they will have.					
Legal Structure	**Definition**	**Advantages**	**Disadvantages**	**Examples**	
Sole trader	An Entrepreneur who sets up a business own their own.	Quick and easy to set up The owner keeps all profits The entrepreneur is their own boss	Unlimited liability Sole trader is required to be a specialist in all business functions Lack finance	Gardener Hari dresser Photographer	
Partnership	Two or more people entrepreneurs join together in a business enterprise	Share workload & skills Access to increased sources of finance	Unlimited liability Conflict between partners Slower decision making	Law firm Accountants	
Private Limited Company	A company that has shareholders who are sold shares privately	Limited liability Increased source of finance from share issues	Complicated to set up Financial documents are published Increased stakeholders	Medium size business LTD after the company name	
Public Limited Company	A company where shares are sold to the public via the Stock Exchange.	Access to high numbers of investors High status	Risk of hostile takeover Controlled by greater legislation Conflict between shareholders	Tesco Tesla	
Not for profit organisation	Set up to achieve objectives other than profit.	Access to grants and tax relief Good publicity	Rely on donations so income is unpredictable Reliance on volunteers	Oxfam Local sports team WWF	

Definitions		☑
Unlimited liability	Personal possessions of the owners of a business are at risk if the business accrues debt.	
Limited Liability	The owners of the business are only liable for the debts of the business up to the amount they invested.	
Dividend payment	Proportion of profit paid to shareholders.	
Deed of partnership	An agreement between partners that sets out the rules of the partnership such as voting rights.	
Shareholder	A person or organisation that owns part of a company.	

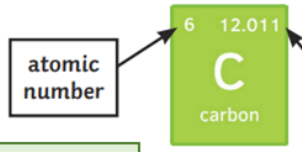
Chapter 1 – Atomic Structure and the Periodic Table

Keyword	Learn	✓
Atom	The smallest part of an element that can exist.	
Element	A substance made up of only one type of atom.	
Compound	A substance made up of two or more types of atom, chemically combined in fixed proportions.	
Mixture	A substance made up of two or more different elements or compounds, not chemically combined together.	
Filtration	The process of separating insoluble solids from liquids using filter paper and a filter funnel.	
Evaporation	The process of removing a solvent by heating so that it changes state into a gas.	
Crystallisation	The process of obtaining crystals of a solid solute from a solution.	
Distillation	A technique used to obtain pure solvent from a solution by evaporating and condensing the solvent.	
Chromatography	A technique used to separate a mixture of soluble substances.	
Rf Value	Rf = Distance moved by substance / Distance moved by solvent	
Solute	The substance that is dissolved in a solution	
Solvent	A substance that dissolves a solute, making a solution.	
Solution	A mixture formed by a solid or gas (solute) dissolving in a solvent.	
Saturated	A solution in which no more solute can dissolve at that temperature.	
Isotope	An atom of an element with the same number of protons (atomic number) but different number of neutrons.	

Atomic Structure



	Particle	Relative Mass	Charge
1	proton	1	+1
2	neutron	1	0
3	electron	Very small	-1



Atomic number = number of protons

Mass number = number of protons + number of neutrons

The Periodic Table

MODERN PERIODIC TABLE

- Elements ordered by atomic number
- Metals on left; non-metals on right
- Elements organized into groups (vertical columns) based on number of electrons in outer shell
- Elements organised into periods based on number of electron shells
- Group 1 = alkali metals
- Group 7 = halogens
- Group 0 = noble gases
- Centre block - transition metals

MENDELEEV'S PERIODIC TABLE (1869)

- Elements ordered by atomic mass
- Elements in groups with other elements having similar properties
- Left gaps to make elements fit the pattern.
- Predicted properties of missing elements, which were later discovered, matching his predictions

Key Equation

$$\text{relative atomic mass } (A_r) = \frac{\text{sum of (isotope abundance} \times \text{isotope mass number)}}{\text{sum of abundances of all isotopes}}$$

Bournemouth School – Knowledge Organiser – Year 9

CHEMISTRY

2.2 Programming Fundamentals

Keyword	Definition / Example	Tick
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!")`	
Sequence	A set of logical steps carried out in order.	
Selection	Making a decision as the result of a Boolean (true/false) condition.	
Iteration	Repeats a block of code.	
Concatenation	Joining strings (text) together.	
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.	
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`	

2.2 Programming Fundamentals

Keyword	Definition / Example	Tick
Arithmetic operators		

	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`

Relational operators

Less than	`<`	`7 < 2`	`False`
Greater than	`>`	`7 > 2`	`True`
Equal to	`==`	`7 == 2`	`False`
Not equal to	`!=`	`7 != 2`	`True`
Less than or equal to	`<=`	`7 <= 2`	`False`
Greater than or equal to	`>=`	`7 >= 2`	`True`

Selection (example)

Python	OCR Ref.

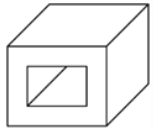
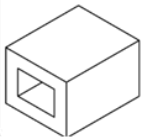
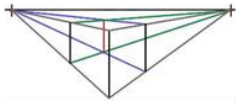
`if value > 50:`
`  print("Over 50")`
`elif value >= 20:`
`  print("20 or over")`
`else:`
`  print("Under 20")`
	`if value > 50 then`
	`  print("Over 50")`
	`elseif value >= 20 then`
	`  print("20 or over")`
	`else`
	`  print("Under 20")`
	`endif`

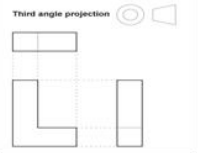
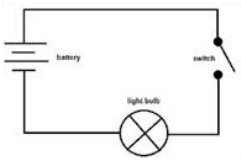
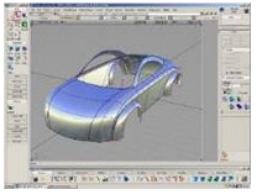
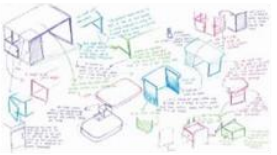
GCSE Design Technology: CORE 1.15 Designers and companies

Tick	Name	Example	What are they known for?
	Alessi		Kitchenware products – which are fun and unique. A company with lots of different designers.
	Apple		Ground breaking designs which broke away from tradition. Have a loyal customer base. Design company.
	Heatherwick Studio		Around 200 designers, architects and makers have worked on products from perfume bottles to buildings – original and unique designs.
	Joe Casely-Hayford		Fashion designer. Known for original but wearable designs, using traditional English tailoring techniques.
	Pixar		Among the first to develop computer animated feature films. Design company.
	Raymond Loewy		Designer. Combined simplicity with functionality. Known for the 'teardrop' design for aerodynamics.
	Tesla, Inc.		Is the leader in producing electric cars which don't compromise on power or quality.
	Zaha Hadid		An architect who integrated geometric forms with expressive, sweeping fluid curves. Promoted architecture as a visual art form for aesthetic pleasure.

GCSE Design Technology: CORE 1.16 Design strategies

Tick	Design strategy	Definition/explanation
	User centred design	User-centred design revolves around putting your users' needs at the centre of every decision that is made throughout the whole designing process.
	Systems thinking	Used by Product Designers and Engineers to help solve complex problems and find solutions, usually using a flowchart. It is used to think about the functions of products and how users interact with them.
	Collabo-ration	When a team of designers come together and generate design ideas.
	SCAMPER	This is a technique used by designers to think of new ideas when developing them. The letters stand for: **S**ubstitute **C**ombine **A**dapt **M**odify **P**ut to another use **E**liminate **R**everse

Tick	Method	Example	Explanation
	Freehand sketching		Very quick sketches drawn by hand. They are used as initial ideas as they are quick to do.
	Digital photography/ media		Creates and develops designs. Tracing paper can be used to trace over ideas.
	Cut and paste techniques		Images are used to create and inspire their own ideas i.e. using a mood board.
	Oblique		A style of 3D drawing, drawn at 45°.
	Isometric		A style of 3D drawing, drawn at 30°.
	One point perspective		There is 1 vanishing point anywhere around the object which all points are drawn to.
	Two point perspective		There are 2 vanishing points either side of the object. Architects use this style when developing their ideas in 3D.

Tick	Method	Example	Explanation
	Orthographic projection		3 main sides; plan, front and side are drawn in line with each other.
	Exploded drawing		Draws the product disassembled so all parts can be seen.
	Assembly drawings		A chronological set of drawings - used to show manufacturers how to make a product.
	Schematic diagrams		Electronics - circuit diagrams to show where components are placed.
	CAD (Computer Aided Design)		Computer images drawn of products using specialist software.
	Annotated sketches		Added to sketches to allow the designer to communicate their thinking i.e. materials etc.

Bournemouth School

Year 9 'Power & Conflict' Knowledge organiser

Poem	Themes	✓	Content	✓	First class quotations	✓	Context	✓
Bayonet Charge	• Traumatic nature of war • Emotional intensity • Vulnerability • Patriotism • Honour		Describes a soldier leaving a trench to charge at the enemy. Speaker questions their purpose in the war.		"The patriotic tear that brimmed in his eye Sweating like molten iron" "Cold clockwork of the stars and nations"		Hughes' father had survived the battle of Gallipoli in World War 1. He draws attention to the hardships of trench warfare.	
Exposure	• Shared endurance • Power of nature • Despair • Loss of faith		Speaker describes war as a battle against the weather and conditions, comments on the suffering around him and thoughts of home.		"Pale flakes with fingering stealth come feeling for our faces" "Our brains ache"		Written in 1917 before Owen went on to win the Military Cross for bravery, and was then killed in battle in 1918. One of the coldest winters in history, lots of men died from infection or the cold.	
Charge of the Light Brigade	• Admiration • Disbelief • Horror • Honour		A lightly armed cavalry charge against Russians. Over half were killed, injured or taken prisoner. Symbolises their courage.		"Into the valley of Death" "Jaws of death"		Published after the disastrous Battle of Balaclava in the Crimean War, a war heavily criticised in the media.	
Remains	• Trauma • Violence • Emotional intensity • Guilt		Speaker describes shooting a looter dead in Iraq and how it has affected him afterwards. Gives an insight into his mental health.		"He's here in my head when I close my eyes / dug in behind enemy lines" "His bloody life in my bloody hands		Based on Guardsman Tromans, who fought in Iraq in 2003 and suffered with PTSD. Coincided with a Channel 4 documentary. Armitage was Poet Laureate.	
War Photographer	• Suffering • Helplessness • Guilt • Trauma		Developing photos at home and they bring back memories. Others are indifferent to the horror.		"All flesh is grass" "Blood stained into a foreign dust"		Duffy was Poet Laureate. Inspired by a friend who was a war photographer who felt helpless.	

Exam Technique		✓
Assessment Objectives	• AO1: Meaningful comparison between poems. Evidence to support points. • AO2: Subject terminology and effect of techniques. • AO3: Knowledge of context.	
Writing an introduction	<u>Three sentences.</u> 1. Identify key word in the question. 2. Discuss what themes both poems tackle. 3. Identify what both poems do differently.	

Key words		✓
Power	The ability or capacity to do something or act in a particular way, sometimes to become or seem stronger than something or someone else.	
Conflict	A serious disagreement or argument Confusion within oneself, including second-guessing and guilt	

Bournemouth School – Knowledge Organiser – Year 9

ENGLISH

Bournemouth School

Year 9 'Paper 1 (Dystopian)' Knowledge organiser

Dystopian conventions: society	✓
Propaganda	
Restricted freedom/ thought	
Leader/ concept is worshipped	
Under surveillance	
Fear of the outside world	
Citizens dehumanised	
Conform to uniform expectations	
Illusion of the perfect utopia	
Natural world banished	
Dystopian conventions: protagonist	✓
Feels trapped	
Questions social and political systems	
Believes something is wrong with society	

Contained narrative plan	✓
Establish a thread	
Drop the reader into the setting	
Zoom in on a character	
Shift to another time or place	
Return/ zoom in on the character again	
Zoom out and close the narrative	
Motif will run throughout	

Language devices	Definition	✓
Metaphor	Saying something IS something else.	
Simile	Comparison using 'like' or 'as'.	
Personification	Giving human characteristics to a non-human object.	
Onomatopoeia	Words as sounds, e.g. 'bang'.	
Sensory imagery	Imagery that plays on the senses (touch, taste, sight, sound, smell)	
Pathetic fallacy	The weather/ nature is used to convey emotion.	
Semantic field	Group of words with a similar meaning/ effect.	
Sibilance	Repetition of 's' or 'sh' sound in a sentence.	
Alliteration	Repetition of consonants at the beginning of successive words.	

Structural devices	Definition	✓
Plot	The main events of a story.	
Tone	General attitude/ feeling of a story or situation.	
Shift	Changes in focus (character, time, location, tone).	
Zooming in/ out	Moving closely towards, or further away from a character/ situation.	
Flashback/ flash forward	Shifts in time, e.g. past memories/ future events.	
Foreshadow	An indication or hint of a particular future event.	
Repetition	Ideas/ motifs/ images/ words are repeated for greater effect.	

Sentence forms	Definition/ effect	✓
Exclamatory	Expresses strong emotion (!)	
Declarative	Makes a statement.	
Interrogative	Asks a question.	
Imperative	Gives a command, more forceful.	
Embedded clause	Gives more information.	
List	List of items, uses commas.	
Adverbial phrase	Gives information about how something is done.	

Glossary		
Key term	**Meaning**	✓
Implicit	Something implied but not said directly	
Explicit	Fully and clearly expressed	
Ascended	Go up	
Glaucoma	Condition in the eye that causes loss of sight	
Sanguine	Optimistic or positive	
Eddies	Circular movement	
Fitfully	Intermittent movement	
Cohesion	Forming a united whole	
Hasp	Metal hinge on a door lock	
Kerosene	Fuel oil, flammable	

Bournemouth School – Knowledge Organiser – Year 9

ENGLISH

Name: Date:

Year 9 Health and Safety and Hygiene

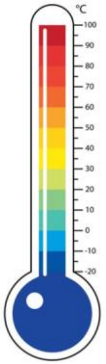
- Good food safety and hygiene practices are essential to reduce the risk of food poisoning.

Food poisoning
Food poisoning can be caused by:
- bacteria, e.g. through cross-contamination from pests, unclean hands and dirty equipment, or bacteria already present in the food, such as salmonella;
- physical contaminants, e.g. hair, plasters, egg shells, packaging;
- chemicals, e.g. cleaning chemicals.

Bacterial contamination is the most common cause.
Microorganisms occur naturally in the environment, on cereals, vegetables, fruit, animals, people, water, soil and in the air. Most bacteria are harmless but a small number can cause illness.
Harmful bacteria are called pathogenic bacteria.
The process of food becoming unfit to eat through oxidation, contamination or growth of micro-organisms is known as food spoilage.

Bacterial growth and multiplication
Most bacteria, including those that are harmful, have four requirements to survive and grow:
- food;
- moisture;
- warmth;
- Oxygen

Temperatures to remember
To reduce the risk of food poisoning, good temperature control is vital:
- 5-63°C – the danger zone where bacteria grow most readily.
- 37°C – body temperature, optimum temperature for bacterial growth.
- 0-5°C – operating range of your fridge
- 75°C – if cooking food, the core temperature, middle or thickest part should reach at least this temperature.
- 75°C – if reheating food, it should reach at least this temperature. Remember to reheat food only once!
- 18 Degrees C correct temperature for a freezer.



Allergen and food intolerance awareness
There are 14 ingredients (allergens) that are the main reason for adverse reactions to food. Cross-contamination of food containing these allergens must be prevented to reduce the risk of harm. They must also be labelled on pre-packaged food and menus so that consumers can make safe choices. The 14

Celery (and celeriac)	Milk
Cereals containing gluten	Molluscs
Crustaceans	Mustard
Eggs	Nuts
Fish	Peanuts
Lupin	Sesame
	Soybeans
	Sulphur dioxide

Where should food be stored in the fridge?

Cheese, dairy and egg-based products
The temperature is usually coolest and most constant at the top of the fridge, allowing these foods to keep best here.

Cooked meats
Cooked meats should always be stored above raw meats to prevent contamination from raw meat.

Raw meats and fish
Raw meats and fish should be below cooked meats and sealed in containers to prevent contamination of salad and vegetables.

Salad and vegetables
These should be stored in the drawer(s) at the bottom of the fridge. The lidded drawers hold more moisture, preventing the leaves from drying out.

Key terms
Allergens: Substances that can cause an adverse reaction to food. Cross-contamination must be prevented to reduce the risk of harm.
Bacteria: Small living organisms that can reproduce to form colonies. Some bacteria can be harmful (pathogenic) and others are necessary for food production, e.g. to make cheese and yogurt.
Cross-contamination: The transfer of bacteria from one source to another. Usually raw food to ready-to-eat food but can also be the transfer of bacteria from unclean hands, equipment, cloths or pests. Can also relate to allergens.
Food poisoning: Illness resulting from eating food which contains food poisoning micro-organisms or toxins produced by micro-organisms.
High risk ingredients: Food which is ready to eat, e.g. cooked meat and fish, cooked eggs, dairy products, sandwiches and ready meals. These are usually moist high protein foods but can include those kept warm on hotplates like Gravies, soups and stews.

High risk food
Bacteria easily multiply on foods known as 'high-risk food'. These are often high in protein or fat, such as cooked meat and fish, dairy foods and eggs. Cooked pasta and rice are also regarded as high risk foods if they are not cooled quickly after cooking and stored below 5°C.

Moisture
Bacteria need moisture to survive. Dried foods, such as powdered milk, cereals or dried egg do not support bacterial growth, if properly stored. However, if moisture is added, any bacteria still alive can quickly begin to multiply.

Time
When bacteria spend enough time on the right types of food, at warm temperatures, they multiply and cause illness. They multiply by Binary Fission.
Reheat food only once and eat leftovers within 48 hours.

Getting ready to cook
- Remove blazers/jumpers and roll up long sleeves.
- Tie up long hair and tuck in ties or head coverings.
- Thoroughly wash and dry hands.
- Put on a clean apron.

Use-by-date
You've got until the end of this date to use or freeze the food before it becomes too risky to eat. These are usually high risk foods.

USE BY:
25/08/20
KEEP REFRIGERATED

Best-before-date
You can eat food past this date but it might not be at its best quality.

BEST BEFORE:
25/08/21
STORE IN A COOL DRY PLACE

Knife Safety- Different knives are used to cut and chop all sorts of foods, it is imperative to use the right knife for the right job and to ensure the correct hold, either the bridge or the claw.
Paring Knife-Fruit and Vegetables
Palette knife- spreading mixtures
Table knife- spreading and mixing liquid into dry mixtures.
Filleting knife – flexible blade to cut flesh from fish bones.
Chef's Knife- cutting meat etc
Serrated edge carving knives- cutting bread etc

Food poisoning Bacteria e.g.
Salmonella
Listeria
E-Coli
Campylobacter
Bacillus Cereus
Staphylococcus aureus
Clostridium perfringens
These are all Pathogenic bacteria.

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

Why clean?
To remove grease, dirt and grime, and prevent food poisoning and pests. Dirty surfaces and equipment encourage flies etc

Chopping boards- White- Dairy and Bakery.
Red – raw meat Blue- Raw Fish
Yellow- Cooked Meat
Brown- Vegetables
Green- Fruit

Symptoms of food poisoning
The symptoms of food poisoning include:
- nausea;
- vomiting;
- stomach pains;
- diarrhoea.

Health and Safety- Before using electrical equipment- Ensure all plugs are secure and cables are intact. Food processors, blenders and deep fat fryers should be on a level surface, do not over fill them. Do not allow cables and leads to become a trip hazard.
Do not allow electrical components near to water, only wipe these parts down with a damp cloth. Be careful of sharp blades when cleaning them.
When using hand held electric whisks ensure loose garments and hair are tied away.

Avoir	To have
J'ai	I have
Tu as	You have
Il/Elle a	He/She has
Nous avons	We have
Vous avez	You all have
Ils/Elles ont	They have

Etre	To be
Je suis	I am
Tu es	You are
Il/Elle est	He/She is
Nous sommes	We are
Vous êtes	You all are
Ils/Elles sont	They are

Faire	To do
Je fais	I do
Tu fais	You do
Il/Elle/on fait	He/She does
Nous faisons	We do
Vous faites	You do
Ils/Elles font	They do

Aller	To go
Je vais	I go
Tu vas	You go
Il/Elle va	He/She goes
Nous allons	We go
Vous allez	You all go
Ils/Elles vont	They go

Regular ER verb endings. Remove the ER and add the following endings		For example Regarder = To watch
Je	-e	Je regarde
Tu	-es	Tu regardes
Il/Elle/On	-e	Il regarde
Nous	-ons	Nous regardons
Vous	-ez	Vous regardez
Ils/Elles	-ent	Ils regardent

Most adjectives go after the noun they are describing. They need to agree with their noun.

Regular adjective endings

Feminine sing – e
Feminine plural – es
Masculine plural – s

Common adjective endings

eur – euse
eux - euse
if – ive
ien - ienne

Adjective placement
These adjectives go before the noun

B – Beauty
A – Age
N – Number
G – Goodness
S - Size

Irregular adjectives

Beau/belle/beaux/belles bel before a masc sing noun
Vieux/vieille/vieux/vieilles vieil before a masc sing noun

Negatives	
Negatives go around the conjugated verb	
ne…pas	not any
ne ….jamais	never
ne…rien	neither …..nor
ne…que	nobody, not anyone
ne…pas	not any, not a single

The near future:

It is the equivalent of 'I am going to do' in English.

Pronoun + form of ALLER + infinitive

e.g. Je + vais + faire

Activities on line		
Je lis mes messages.	I read my messages.	
Je poste des messages.	I post messages.	
Je mets à jour ma page perso	I update my page.	
Je télécharge des chansons	to download	
Je fais des quiz.	I do quizzes.	
Je joue à des jeux.	I play games.	
Je commente des photos.	I comment on photos.	
Je passe des heures…	I spend hours.	
On organise des sorties.	We organise outings.	
On partage des photos.	We share photos.	
Les réseaux sociaux	Social media/network	

Connectives and intensifiers		
très	very	
assez	quite	
un peu	a bit	
trop	too (much)	
vraiment	really	
parce que/ car	because	
donc	Therefore	
puis	Then	
ensuite	Next	
cependant	However	
tandis que	Whereas	
en plus	Also	

Adjectives to describe people		
ennuyeux(-euse)	boring	
barbant(e)	boring	
amusant(e)	fun	
drôle	funny	
marrant(e)	funny	
intéressant(e)	interesting	
arrogant(e)	arrogant	
beau/belle	beautiful	
charmant(e)	charming	
égoïste	selfish	
génial(e)	great	
casse-pieds	annoying	
sympa	nice	

Opinion structures		
À mon avis	In my opinion	
Le foot me plaît	I like football	
Je m'intéresse à	I'm interested in	
À mon avis	In my opinion	
Je pense que	I think that	
Je crois que	I believe that	
Je trouve que	I find that	
J'aime	I like	
J'adore	I love	
Je n'aime	I don't like	
Je déteste	I hate	
Mon père aime	My dad likes	
Mes amis adorent	My friends love	
On adore	We love	

Past tense verbs (passé composé)		
Je suis allé(e)	I went	
Je suis resté(e)	I stayed	
J'ai téléchargé	I downloaded	
J'ai bu	I drank	
J'ai fait	I did	
J'ai écouté	I listened	
J'ai joué	I played	
J'ai mangé	I ate	
J'ai regardé	I watched	
J'ai dansé	I danced	
C'était	It was	
Ce n'était pas	It wasn't	
Il faisait beau	It was nice weather	

Picture description		
Sur la photo	On the photo	
Je peux voir	I can see	
On peut voir	We/you can see	
Il y a	There is/are	
De plus je peux voir	Also I can see	
À gauche	On the left	
À droite	On the right	
Au centre	In the centre	
À l'arrière plan	In the background	
Au gros plan	In the foreground	
Il est en train de …	He is in the middle of	
Ils sont en train de …	They are in the middle of	

Development Dynamics 1

1. How do we measure development?

Development can be measured using:

- economic indicators (e.g. **GDP per capita**)
- social indicators (e.g. **literacy rate**)
- political indicators (e.g. **corruption**).

The **Human Development Index (HDI)** uses an average of four indicators:

- life expectancy
- literacy
- average length of schooling
- GDP per capita.

2. Development and population

There is a relationship between economic development and other indicators. As a country's wealth increases, most development indicators improve (e.g. as GDP per capita increases, more wealth is invested in education, improving literacy rates).

Demographic indicators (population) include **birth rate, gender equality** and **fertility rate** can also be used to measure development.

Malawi's (low-income country) high fertility rate is due to poverty and fewer girls attending secondary school, meaning they marry earlier and have several children.

3. How has inequality changed in recent years?

The 1980 Brandt Report divided the world into **HICs** (high-income countries) and **LICs** (low-income countries).

There is a 'development gap' between the world's richest and poorest countries but there are also large variations within countries.

Since the 1980s, **MICs** (middle-income countries e.g. Brazil), **NICs** (newly industrialised countries e.g. Singapore) and **RICs** (recently industrialised countries e.g. India) have emerged.

4. How has Malawi been held back from developing 1?

There are four factors that are holding Malawi's development back:

- Malawi is **landlocked** (it has no coastline) affecting trade. It is also surrounded by poor neighbours adding to the problem
- Malawi's population is mostly rural and therefore **isolated**.
- Climate change is reducing rainfall and is reducing crop yields.
- In urban areas squatter settlements and pollution are a risk to human health

4. How has Malawi been held back from developing 2?

Malawi faces three economic barriers:

1. Terms of trade – the value of Malawi's exports are less than its imports because it mostly exports raw materials

2. Colonialism (and neo-colonialism) and **cash crops** – Malawi relies on cash crops which are low in value and many plantations are still UK owned (e.g. PG Tips tea).

3. Malawi exports raw coffee beans without processing them which would add value. This is because the EU has a **tariff** on imported processed beans.

5. How do countries develop?

Rostow believed that countries should pass through five stages of development:

1. Traditional society – subsistence economy (e.g. Malawi).

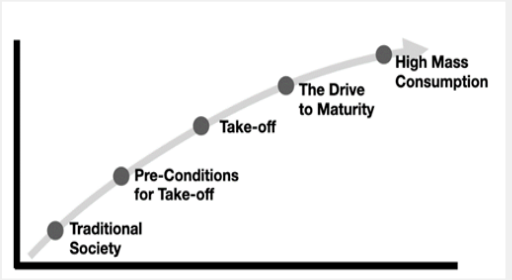
2. Pre-conditions for take-off – a shift from farming to manufacturing.

3. Take-off – investment creates new industries (e.g. India).

4. Drive to maturity – industries produce consumer goods.

5. Age of high mass consumption – wealth is spent on the service sector such as healthcare (e.g. UK).

The development of manufactured goods is seen as the key to development.



6. Frank's dependency theory

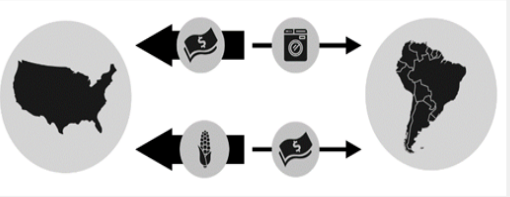
Frank's dependency theory.

He believed:

development was about a core and periphery

core regions were the developed nations

periphery regions were the 'others', producing raw materials to sell to the core. They depended upon the core for their market.



7. Why do some countries benefit from globalisation more than others?

Globalisation is **the process by which the world is becoming increasingly interconnected as a result of massively increased trade and cultural exchange**. Globalisation has increased the production of goods and services..

Recent economic policies have encouraged **Foreign Direct Investment (FDI)** supporting a market economy. Most has come from major Transnational Companies (TNCs).

Shipping, containerisation and aircraft technology have accelerated globalisation and reduced transports costs.

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Der Tagesablauf – My daily routine		
Ich wache auf.	*I wake up*	
Ich stehe auf.	*I get up.*	
Ich wasche mich.	*I get washed.*	
Ich dusche mich.	*I have a shower.*	
Ich ziehe mich an.	*I get dressed.*	
Ich frühstücke.	*I have breakfast.*	
Ich gehe aus.	*I go out.*	
Ich komme zurück.	*I come back.*	
Ich esse zu Abend	*I have dinner.*	
Ich ziehe mich aus.	*I get undressed.*	
Ich gehe ins Bett.	*I go to bed.*	
Ich schlafe ein.	*I go to sleep*	

Der Tagesablauf – My daily routine		
Ich mache mich fertig	*I get myself ready*	
Ich style mir die Haare	*I style my hair*	
Ich mache mir die Haare	*I do my hair*	
Ich putze mir die Zähne	*I clean my teeth*	
Ich schminke mich	*I put make-up on*	
Ich sehe mich im Spiegel an	*I look at myself in the mirror*	
Ich benutze ein Deo	*I put deodorant on*	
Ich wähle meine Kleider aus	*I choose my clothes*	

Was trägst du? – What are you wearing?		
Ich trage	*I wear/am wearing*	
einen kurzen Rock	*a short skirt*	
einen langen Mantel	*a long coat*	
einen schicken Anzug	*a smart suit*	
einen lockeren Kapuzenpulli	*a casual hoodie*	
eine weite Hose	*a baggy pair of trousers*	
eine schmale Jeanshose	*a pair of skinny jeans*	
ein kariertes Hemd	*a checked shirt*	
ein gepunktetes Kleid	*a spotty dress*	
ein gestreiftes T-Shirt	*a stripy T-shirt*	
schicke Stiefel	*smart boots*	

In der Jugendherberge - in the youth hostel		
die Hausordnung	*rules of the house*	
Man muss …	*You have to*	
vor 22:00 Uhr ins Bett gehen.	*go to bed before 10 o'clock.*	
das Bett machen.	*make the bed.*	
das Zimmer sauber halten.	*keep the room clean.*	
vor acht Uhr aufstehen.	*get up before eight o'clock.*	
abwaschen.	*wash up.*	
Man darf nicht…	*You must not*	
rauchen.	*smoke.*	
im Zimmer essen.	*eat in the room.*	

Zeitangaben – Time phrases		
wenn	*when (if)*	
immer	*always*	
zum Beispiel	*for example*	
zuerst	*first of all*	
seit	*since (for)*	
für	*for*	
möglich	*possible*	
pro Jahr	*per year*	
nächstes Jahr	*next year*	
teuer	*expensive*	
alle	*all/everyone*	
um .....zu	*in order to*	

Wie komme ich…? How do I get …?		
zum Bahnhof	*to the station*	
zum Park	*to the park*	
zur Bushaltestelle	*to the bus stop*	
zur Kirche	*to the church*	
zum Schwimmbad / zum Hallenbad	*to the (indoor) swimming pool*	
zum Museum	*to the museum*	
zum Markt	*to the market (place)*	
zum Souvenir-geschäft	*to the souvenir shop*	

Adjective Endings Group 1 (after der etc)

	Männlich	Weiblich	Sächlich	Plural
Nom	Adj + e	Adj + e	Adj + e	Adj + en
Acc	Adj + en	Adj + e	Adj + e	Adj + en
Dat	Adj + en	Adj + en	Adj + en	Adj + en
Gen	Adj + en	Adj + en	Adj + en	Adj + en

Adjective Endings Group 2 (after eine, eine etc)

	Männlich	Weiblich	Sächlich	Plural
Nom	Adj + er	Adj + e	Adj + es	Adj + en
Acc	Adj + en	Adj + e	Adj + es	Adj + en
Dat	Adj + en	Adj + en	Adj + en	Adj + en
Gen	Adj + en	Adj + en	Adj + en	Adj + en

To use a regular present tense verb you need:

subject + **stem** + **ending**

ich	I
du	you
er/sie/es	he/she/it
wir	we
ihr	you
sie	they
Sie	You (polite)

Chop the –en off the infinitive

For example:
machen
stem = mach

- e
- st
- t
- en
- t
- en
- en

Strong verbs have a vowel change in the stem for ***the du and er/sie/es forms only:***

a → ä
e → i
e → ie

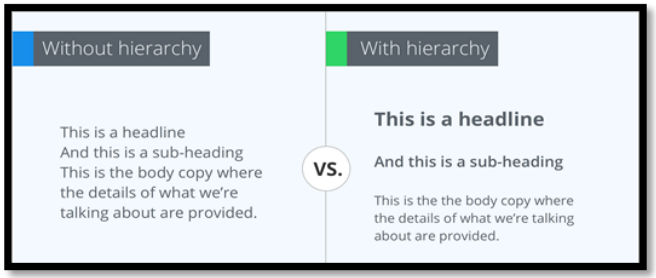
	essen	***tragen***	***lesen***	***arbeiten***
ich	*esse*	*trage*	*lese*	*arbeite*
du	***i**sst*	*trägst*	*l**ie**st*	*arbeit**e**st**
er/sie/es	***i**sst*	*trägt*	*l**ie**st*	*arbeit**e**t**

müssen – to be have to/must		
ich muss	*I have to*	
du must	*you have to*	
er/sie/es/man muss	*he/she/it/one has to*	
wir müssen	*we have to*	
ihr müsst	*you have to*	
sie/Sie müssen	*they/you have to*	

dürfen – to be allowed to		
ich darf	*I am allowed to*	
du darfst	*you are allowed to*	
er/sie/es/man darf	*he/she/it/one is allowed to*	
wir dürfen	*we are allowed to*	
ihr dürft	*you are allowed to*	
sie/Sie dürfen	*they/you are allowed to*	

machen – to make, to do		
ich mache	*I make/do*	
du machst	*you make/do*	
er/sie/es/man macht	*he/she/it/one makes/does*	
wir machen	*we make/do*	
ihr macht	*you make/do*	
sie/Sie machen	*they/you make/do*	

Typography terms



Keyword	Definition	tick
Script	Script typefaces are fonts or type based upon historical or modern handwriting styles and are more fluid than traditional typefaces.	
Slab serif	Slab serif fonts feature a geometric feel compared to traditional serif fonts and feature serifs that are square and larger, bolder.	

Though there are no set rules for when to use a serif or sans serif font, it's suggested that sans serif fonts should be used for online body text and serif fonts for headlines and print. Use script and fantasy fonts for accents or large headlines with very few words.

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789 (!@#$%&.,?:;)

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789 (!@#$%&.,?:;)

Keyword	Definition	Tick
Typography	Typography is the visual component of the written word,". All visually displayed text, whether on paper, screen or billboard, involves typography.	
Kerning	Kerning refers to the space between two specific letters (or other characters: numbers, punctuation, etc.) and the process of adjusting that space improves legibility.	
Tracking	Tracking is similar to kerning in that it refers to the spacing between letters or characters. However, instead of focusing on the spacing between individual letters (kerning), tracking measures space between groups of letters.	
Hierarchy	Typographic hierarchy is an essential part of any design or layout and even if you're not familiar with the term, you'll be sure to have seen hierarchy in action on any website, newspaper or magazine.	
Lorum Ipsum	Lorem Ipsum is simply dummy text used by the design industry. It's used as placeholder text and has a more-or-less average distribution of letters, making it look like readable English, as opposed to using 'Add content here, add content here' within designs when the copy isn't quite ready.	
Sans serif	A serif is the little extra stroke or curves, at the ends of letters.	
Sans	"Sans" literally means "without", and a sans serif font does not include any extra stroke at the ends of the letters.	
Ascender / Descender	The ascender is the portion of a lowercase letter that extends above the mean line of a font *(the x-height)*. On the other hand, the descender is the portion of a letter that extends below the baseline of a font.	
X-height	The x-height refers to the distance between the baseline and the mean line of lower-case letters in a typeface	

Bournemouth School: History Department: Knowledge Organiser: Year 9: Autumn 1: Weimar Republic 1918-29

Timeline of key events:

Oct. 1918: New govt. formed by Prince Max of Baden
Oct. 1918: Mutiny of German sailors at Kiel
Nov. 1918: Kaiser Wilhelm II abdicates
Nov. 1918: Armistice signed
Dec 1918/Jan 1919: Spartacist Uprising
Jan. 1919: Ebert sets up Constituent Assembly
Aug. 1919: Weimar Constitution established
June. 1919: Treaty of Versailles signed
March 1920: Kapp Putsch
June 1922: Walter Rathenau, Foreign Secretary, assassinated
January 1923: French troops invade and occupy the Ruhr region of Germany
Jan. - Nov. 1923: Hyperinflation
August 1923: Stresemann becomes Chancellor of Germany and introduces the Rentenmark
Nov. 1923: Munich Putsch
August 1924: Dawes Plan: US loan Germany 800 million marks to Germany
Oct. 1925: Locarno Pact: Britain, France, Germany & Italy agree existing borders
Sept 1926: League of Nations set up
July 1927: Unemployment Act introduced to provide benefits for the unemployed
Aug. 1928: Kellogg-Briand Pact:
Aug. 1929: Young Plan reduces reparations to £1,850 million
Oct. 1929: Wall Street Crash

Key terms/definitions

✓	Term	Definition	✓
	Abdicate	To voluntarily step down from your position as king or queen	
	Armistice	The agreement reached by the warring nations to end WWI	
	Article 48	Law allowing the president to rule alone through emergency powers in a crisis	
	Bauhaus Movement	A school of design known for being simple and modern	
	Chancellor	The leader of the Weimar government, appointed by the President	
	Coalition	A government run by lots of small parties working together	
	Communism	A political idea where workers have power and wealth is shared	
	Constitution	A set of laws that set out how a government should run	
	Demilitarized	No soldiers or anything military allowed	
	Democracy	Government based on ordinary people voting for leaders	
	Dolchstoss Theory	Stab in the back theory - Germany had been betrayed during WWI by Jews and Socialists	
	Freikorps	Ex-soldiers who set up private armies after the war was over	
	General strike	When workers from different industries go on strike at the same time	
	Golden Years	The period 1923-29 in which The Weimar Republic recovered	
	Hyperinflation	When the value of money declines rapidly, causing prices to increase	
	Kaiser	The Emperor of Germany before 1918	
	League of Nations	An international organisation set up in 1918 to prevent future wars	
	Modern Art	Art that challenges traditional ideas of what art should be	
	Mutinies	When soldiers refuse to take orders or fought against their commanders	
	Nationalist	Supporting traditional ideas, in particular the Kaiser and the army	
	November Criminals	Term used by nationalists to accuse Weimar politicians of surrendering during WWI	
	Passive Resistance	Opposition to the French Ruhr invasion without using violence	
	President	The head of state in the Weimar Republic, elected every 7 years.	
	Proportional Representation	A type of democracy where parties receive seats in a parliament according to the percentage of the vote which they receive	
	Putsch	An attempted takeover of government	
	Reichstag	The German parliament	
	Reichswehr	German army and navy	
	Reparations	Money Germany had to pay to Britain and France for damages during WWI	
	Rentenmark	New German currency introduced to restore confidence after hyperinflation	
	Revolution	When the people rise up against their leaders, sometimes violently	
	Scapegoat	Someone who is unfairly blamed for something	
	Spartacists	Radical, communist group who attempted to overthrow the Weimar Republic	
	Social Democrats	The largest party in the Reichstag, stood for democracy and a welfare state	
	Trade Unions	Organisations set up by workers to defend their rights	
	Unemployment benefits	Money given by the government to support unemployed people	
	Weimar Republic	Germany's new government from 1919 - 'republic' because there was no Kaiser, and 'Weimar' after the town politicians relocated to due to the instability in Berlin after WWI	

Bournemouth School: History Department: Knowledge Organiser: Year 9: Autumn 1: Hitler's Rise to Power

Timeline of key events:

August 1914: WWI starts and Hitler joins the German army
1918: Hitler awarded the Iron Cross for bravery in WWI
Sept. 1919: Anton Drexler founds DAP
Feb. 1920: 25 Point Programme written declaring the main policies of the Nazi Party
1921: SA formed by Ernst Rohm
1923: Hyperinflation
Nov. 1923: The Munich Putsch; the failed attempt by Nazi party to overthrow the regional government of Bavaria and national government of Germany by force
April 1924: Hitler sentenced to 5 years in Landsberg Prison (released after only 9 months)
1924: Ban on Nazi Party lifted
1926: Bamberg Conference
1928 Election: Nazis won 12 seats in the Reichstag
29 Oct. 1929: Wall Street Crash; more than 16 million shares were traded in panic selling, triggering further sales and leading to a world economic crisis
1928-30: Muller government
1930-May 1932: Bruning government
Sept 1932 Election: Nazis win 107 seats in the Reichstag
1932: Presidential Election: Hindenburg wins, but Hitler polls 13.4m votes
July 1932 Election: Nazis win 230 seats in the Reichstag
November 1932 Elections: Nazis win 196 seats in the Reichstag
30 January 1933: Hitler appointed Chancellor of Germany by Hindenburg

✓

Key terms/definitions

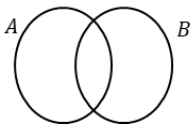
Term	Definition	✓
Balanced budget	When a nation does not spend more than it earns	
Bamberg Conference	Nazi Party meeting where Hitler strengthened his power and reorganised the Nazi party	
Centre Party (ZP)	A Catholic Party occupying the middle ground in political views	
Charisma	A quality in leadership which arouses loyalty and enthusiasm for a public figure	
Civil Servants	Citizens who work for and are paid by the government	
Communist	Supporter of communism: a political idea where workers have power and wealth is shared	
DAP	German Workers Party; the early Nazi Party, established by Anton Drexler in 1919	
Fuhrer	Leader; title given to Hitler to define his role of absolute authority	
Fuhrerprinzip	The idea that the Nazi Party and Germany should have one leader, obeyed by all	
Gaultier	The leader of branches of the Nazi Party (Gaue)	
General Elections	Elections held for the German people to choose deputies to sit in the Reichstag	
Great Depression	Slump in the economy in the 1930s which led to high unemployment	
Heil Hitler	Raised arm salute to Hitler	
Hitlerjugend	Hitler Youth movement, set up for the young in Germany, to convert them to Nazi ideas	
Indoctrination	Converting people to a set of ideas using education and propaganda	
Informant	Person who gives information to the authorities about the activities of other people	
Left wing	People who favour socialism and /or communism	
Manifesto	A public declaration of the policy of a political party	
Mein Kampf	Book containing autobiography/political views of Hitler written in 1924 in Landsberg Prison	
NSDAP	National Socialist Party or Nazi Party	
Presidential Election	Elections held for the people of Germany to choose the President of the Weimar Republic	
Political Intrigue	Trickery and secret deals used in politics instead of open political debate	
Propaganda	Use of a variety of means including newspapers, broadcasts and education to accept political ideas without question	
Querfront	'Cross front': bringing together different strands of left & right-wing parties to rule Germany	
RFB	Red Front Fighters; Communist private army (militia)	
Right Wing	People who favour groups that are nationalistic, patriotic and sometimes racist	
SA	Sturmabteilung; paramilitary storm troopers of the Nazi Party	
SS	Schutzstaffel: originally Hitler's bodyguard, they became the most powerful troops in Nazi Germany and were responsible for concentration camps and the Final Solution	
Stock market	The place where stocks and shares are traded; Wall Street in New York was the most important Stock Market in the world in the 1920s	
Taxes	Money paid by workers to the government to fund public works, schools, unemployment benefits etc	
Treason	The act of betraying your country; considered to be one of the most serious criminal acts	
Unemployment	The number of people who are without a job in a country	
Unemployment benefit	Money given to the unemployed by the government (unemployment insurance)	

Keyword		Definition	Example(s)
Combinations		The number of ways of combining objects, found by multiplying the number of options for each choice	*Choose 2 students from a class of 30.* $\frac{30 \times 29}{2} = 435$
Estimating		Rounding values to 1 or 2sf to simplify a calculation	
Factor		A number that divides exactly into a given number	8 *is a factor of* 24
Multiple		A number in the given numbers times table	18 *is a multiple of* 6
Prime Factor Tree		Breaks up a number into products of its prime factors	12 4 3 2 2
Prime Factor Decomposition		A number written as a multiplication of its prime factors, normally written in index form.	$140 = 2^2 \times 5 \times 7$
HCF (highest common factor)		The largest number that divides into 2 numbers with no remainder	*HCF of 20 and 28* 4
LCM (lowest common multiple)		The smallest number that 2 numbers divide into exactly	*LCM of 20 and 28* 140
Standard form		A number written in the form $A \times 10^n$, where $0 < A \leq 10$ and n is an integer	$0.00284 = 2.84 \times 10^{-3}$
Surd		An irrational number, written exactly using square or cube roots	$\sqrt{5}, \sqrt[3]{8}$
Rational		A number that can be expressed in the form $\frac{a}{b}$	$\frac{6}{7}, 1.5, 0.\dot{6}$
Irrational		A non-terminating decimal with no recurring pattern	$\pi, \sqrt{2}, 3\sqrt{5}$
Rationalising a denominator		Multiplying $\frac{a}{\sqrt{b}}$ by $\frac{\sqrt{b}}{\sqrt{b}}$ to attain an integer denominator of b	

Keyword		Definition	Example(s)
Identity		The $\equiv$ symbol shows an identity. In an identity the two expressions are equal for all values of the variables.	$2(x+5) \equiv 2x+10$
Equation		An equation is only true for certain values of the variable. An equation has an equals sign, the variable and numbers. It can be solved to find the value of the variable.	$2y - 4 = 9y + 1$
Consecutive integers		Numbers one after the other in order.	$2, 3, 4,$ or $-8, -7, -6$
Expression		An expression contains letter and/or number terms but no equals sign	$2ab$ $2ab + 3b$ $2ab - 7$
Term		Separate parts of expressions, equations, formulae and identities separated by addition or subtraction	Within $2ab + 3b - 7$ there are 3 terms
Coefficient		The numerical value in an algebraic term	3 is the coefficient in $3x^2$
Formula		A formula has an equals sign and letters to represent different quantities.	$A = \pi r^2$
Subject of a formula		The subject of a formula is the letter on its own, on one side of the equals sign.	s is the subject of $s = ut + \frac{1}{2}at^2$
The nth term		The nth term of a sequence tells you how to work out the term at position n (any position). It is also called the general term of the sequence	
u_n		u_n denotes the nth term of a sequence,	u_1 is the first term, u_2 is the second term, and so on.
Arithmetic sequence		Terms increase by a fixed number called the common difference. General form $An + B$	$3, 7, 11, 15, \ldots$ nth term = $4n - 1$
Geometric sequence		Terms increase by a constant multiplier called the ratio. General form $a \times r^n$ or $a \times r^{n-1}$	$2, 6, 18, 54, \ldots$ nth term = $2 \times 3^{n-1}$
Quadratic expression		A quadratic expression contains a term in n^2 but no higher power of n General form $an^2 + bn + c$	$3, 8, 15, 24, \ldots$ nth term = $n^2 + 2n$
Expand		Remove brackets by multiplying terms	$2(2x+1) \equiv 4x+2$
Factorise		Arrange an expression into a product of its factors by placing terms in brackets.	$4x + 2 \equiv 2(2x+1)$

After completing a Prime Factor Decomposition for numbers A and B:

$HCF = A \cap B$
$LCM = A \cup B$



Surd Laws

- $a\sqrt{b} \times c\sqrt{d} = ac\sqrt{bd}$
- $\frac{a\sqrt{b}}{c\sqrt{d}} = \frac{a}{c}\sqrt{\frac{b}{d}}$
- $\sqrt{a^2} = \sqrt{a}^2 = a$

Standard form operations

- $(A \times 10^n) \times (B \times 10^m) = (AB) \times 10^{n+m}$
- $(A \times 10^n) \div (B \times 10^m) = \left(\frac{A}{B}\right) \times 10^{n-m}$
- $(A \times 10^n) \pm (B \times 10^n) = (A \pm B) \times 10^n$

note the powers must be the same

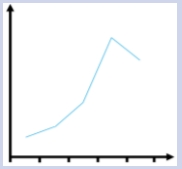
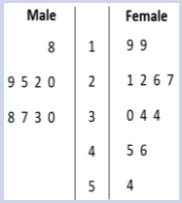
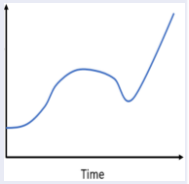
Index Laws

- $x^a \times x^b = x^{a+b}$
- $x^a \div x^b = x^{a-b}$
- $(x^a)^b = x^{ab}$
- $x^0 = 1$
- $x^{\frac{1}{a}} = \sqrt[a]{x}$
- $x^{-a} = \left(\frac{1}{x}\right)^a$

Year 9 – Maths – Autumn 1 – Units 1 & 2

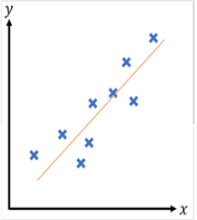
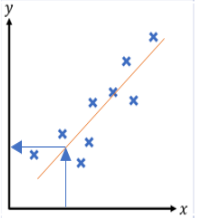
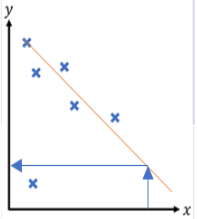
Bournemouth School – Knowledge Organiser – Year 9

MATHS

Keyword	Definition	Example(s)
Qualitative	Describes a characteristic of the data	*Colour, Brand*
Quantitative	Data counted or measured in numerical values	*Height, Weight*
Discrete	Data that takes fixed values	*Shoe size, Year*
Continuous	Data that can take any value	*Foot length, Time*
Frequency polygon	Used for grouped data with even class-widths. Plot midpoint against frequency	
Pie chart	Shows portions of a whole, split into sectors	
Stem-and-leaf diagram	Simplifies writing long lists of numbers by using common digits as a stem. Must have a key.	
Median	The middle piece of data when in order of size, found using $\frac{n+1}{2}$.	*Find the median of the males:* 29
Range	A measure of spread. Difference between largest and smallest.	*Find the range of the males* 20
Time-series	A graph that shows how data varies over time	

Pie chart

$$Sector\ angle = \frac{f}{\Sigma f} \times 360$$

Keyword	Definition	Example(s)
Scatter graph	Displays bivariate data. Used to show if there is a relationship.	
Line of best fit	Drawn on a scatter graph to show the trend and predict data values.	
Correlation	A description of the relationship of bivariate data.	*Positive, negative, no*
Interpolation	Predicting within the range of data.	
Extrapolation	Predicting outside of the range of data	
Anomaly	A piece of data that does not fit the trend.	
Mode	The most common piece of data.	*Find the mode of* *2, 6, 3, 6, 4* *= 6*
Mean	The sum of all the pieces of data, divided by how many there are	*Find the mean of* *2, 6, 3, 6, 4* *= 4.2*

Mean from grouped data $= \frac{\Sigma fx}{\Sigma f}$

Mean from individual data $= \frac{\Sigma x}{f}$

Year 9 – Maths – Autumn 1 – Unit 3

Bournemouth School – Knowledge Organiser – Year 9

MATHS

Year 9
Unit: **Instrumental techniques**

Bournemouth School music department

This QR code will take you to a Spotify playlist with listening for *recognising instruments*. You will find it helpful to listen to it as you learn.

Instrumental Playing techniques
Arco – played with the bow

Pizzicato – plucking the strings

Con Sordini – with mutes

Col Legno – bouncing the wood of the bow on the string

Glissando – pitch slide

Harmonics – touching the string rather than pressing right down to give an ethereal sound quality

Fluttertonguing – rolling an 'r' in the back of the throat while playing the instrument. Gives a rasping sound (woodwind can also do this)

Roll – rapid alternation of sticks on a drum

Strumming – playing across all strings to form a chord

Picking – plucking one string at a time to play a melody

Harmonics – touching the string rather than pressing down. Gives a high pitch ethereal sound

Hammer ons – placing an addition finger down to give a second higher pitch after the string is plucked

Pull offs – pulling a finger off the string to give a second lower pitch after the string is plucked

Palm muting – using the palm of the right hand to deaden the strings while you pick.

Harpsichord - Keyboard instrument common in the Baroque Period (pre 1750). Strings are plucked not struck. Little ability to vary dynamics except by playing more strings. Little ability to sustain

Electronic Music

Synthesiser - An electronic musical instrument that creates sounds by manipulating combinations of wave forms or by modifying existing sounds. Often, but not always played via a keyboard.

DAW – short for Digital Audio Workstation. A piece of software designed to allow you to record, edit, mix and master digital audio files eg Pro Tools, Cubase, Audacity, Logic.

Sample – a pre-recorded segment of sound. Often samples are manipulated in some way.

Compression – a production tool which controls the dynamic range of a sound, decreasing the difference in volume between the loudest and quietest sound

Reverb - an effect giving the impression that sound is in a physical space

Panning – placing the sound in the stereo field by assigning different levels to the left and right speaker channels

Flange - an audio effect produced by mixing two identical signals together, one delayed by a changing period of time. Gives a swooshing / swirling effect

Overdrive – effect which mimics a form of distortion created by pushing a valve amp past its ability to produce a clean sound

Year 10
Unit: Music Theory

Bournemouth School music department

This QR code will take you to a Spotify playlist with listening for this unit. You will find it helpful to listen to it as you learn.

Theory of Music

Note Values

Notes	Name		Value
𝅝	Semibreve	Whole note	4 beats
𝅗𝅥	Minim	Half note	2 beats
♩	Crotchet	Quarter note	1 beat
♪	Quaver	Eighth note	½ beat
𝅘𝅥𝅯	Semi-quaver	Sixteenth note	¼ beat
♫	2 Quavers	2 Eighth notes	1 beat
𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯	4 Semi-quavers	4 Sixteenth notes	1 beat

Time Signatures—way beats are grouped within a piece of music. Top number tells you how many, bottom number tells you what type of beat

4/4—4 crotchets per bar

3/4—3 crotchets per bar

2/4—2 crotchets per bar

6/8—2 dotted crotchets per bar

9/8—3 dotted crotchets per bar

12/8—4 dotted crotchets per bar

Scales

Major Scale— made up of 7 pitches. The bottom note is repeated an octave higher. Pattern of intervals is tone, tone, semitone, tone, tone, tone, semitone

Minor Scale—made up of 7 pitches. The bottom note is repeated an octave higher. In the harmonic minor, the interval pattern is tone, semitone, tone, tone, tone, augmented 2nd, semitone.

Relative major/ minor—two scales which share the same key signature

Intervals

Interval—the distance between two notes. Intervals are always defined as an adjective and a number

Chords

Chord—two or more notes sounding together. The most common chords are triads with 3 notes. Chords are named after their bottom or root note and by whether they are major or minor

Perfect Cadence—Chord V-! Sounds finished
Imperfect Cadence—Chord I, IV or II –V sounds unfinished
Plagal Cadence—Chord IV-I sounds finished, sometimes called Amen cadence
Interrupted Cadence—Chords V– VI— sounds unfinished. In the major scale, chord VI is minor

Keyword	Learn	✓
Transition	The process or a period of changing from one state or condition to another:	
Skill	Something you can learn or develop through practice that can help you succeed.	
Quality	A personal characteristic, attribute or personality trait.	
Transferrable skills	Skills and abilities that are relevant and helpful across different areas of life: socially, professionally and at school.	
Revision	Repeatedly, over a long period of time, actively engaging with the knowledge, skills and understanding	
Positive peer pressure	A feeling that you must do something beneficial due to the influence of your friends, age group or classmates in order to be liked.	
Negative peer pressure	A feeling that you must do something dangerous, risky or harmful due to the influence of your friends, age group or classmates in order to be liked.	
Cyber-bullying	Bullying that takes place via mobile phones, social media or online.	
Homophobic language	Language used as a form of abuse towards the LTGB+ community - the language is often directed at someone or something perceived to be inferior.	

Some useful websites:
https://www.bbc.co.uk/bitesize/articles/zw8qpbk
https://www.childnet.com/young-people/
https://www.childline.org.uk/
https://www.bournemouth-school.org/255/report-a-concern

Personal Development is
Personal - to do with ourselves
Relationships - how we relate to others and how they relate to us
Sex - how we interact and relate to others in a sexual sense
Health - about looking after our bodies, mentally and physically
Careers - how we plan and develop our careers
Economics - all about managing our money (the E also stands for education too)

Characteristics of a good friend:
Regardless of the situation they will:

- support and encourage to act in a positive manner
- be trustworthy and honest
- listen to you as you would listen to them.
- accept you for who you are.
- respect you and your boundaries.
- Forgive you where they can
- Accept your forgiveness when they mess up

What should you do if you are bullied or see bullying?
- Do not put up with it or just accept it
- Get help, talk to a friend, report it to a teacher, your parents or another adult

PD Classroom Rules

Openness: Be open and honest. However, do not discuss others' personal/private lives - try to use examples.
Keep the conversation in the room: You should feel safe discussing issues and be confident that your contributions will not be shared outside this room. If your teacher has concerns that someone is at risk of harm they have a duty to refer.
Non-judgmental approach: It is okay for us To disagree with another person's point of view but do not judge, make fun of, or put anybody down. - 'challenge the opinion, not the person'.
Right to pass: Taking part is important. However, you have the right to pass on answering a question and you will not put anyone 'on the spot'.
Make no assumptions: Do not make assumptions about people's values, attitudes, behaviours, identity, life experiences or feelings. Listen to other people's views respectfully and expect to be listened to.
Use appropriate language: Use the correct terms rather than slang terms - they can be offensive.
Ask questions: You are encouraged to ask questions. However, do not ask personal questions or say anything to embarrass someone.

3.1.1.1 The structure and function of the Musculo-skeletal System (KO 1 of 3)

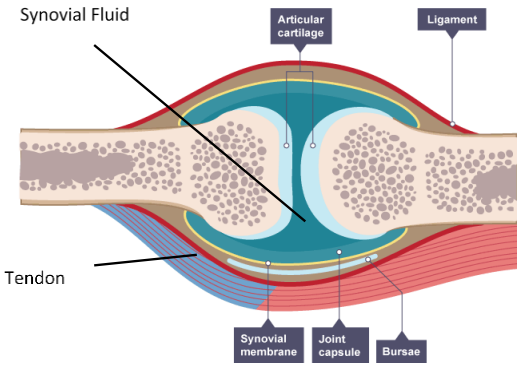
Types of Bones

FLAT bones	protect vital organs e.g. cranium protects your brain, ribs protect heart and lungs.
LONG bones	enable gross (large) movements e.g. femur, tibia and fibula in the leg which allow us to run, humerus, radius and ulna in arm which allows us to throw a ball.
SHORT bones	enable fine (small) movements e.g. fingers allowing you to spin a cricket ball.

Synovial Joint - Key Terms

Ligaments	Attaches bone to bone to keep the joint stable e.g. knee when kicking the ball or restricts movement/prevents movement to stop injury.
Cartilage	Found between bones and prevents friction by stopping the bones from rubbing together.
Synovial Membrane	Secrets synovial fluid.
Synovial Fluid	Is produced by the synovial membrane and helps lubricate the joint.
Joint Capsule	This is lined with synovial membrane. It encloses the joint making sure the cartilage and synovial fluid remain in place.
Bursae	Fluid filled sac providing cushion between bones and tendons. This stops friction at the joint.
Tendons	Attach muscle to bone. When a muscle contracts to move a joint, it is the tendon which pulls on the bone, keeps muscles/bones stable or holds join in place.

Synovial Joints



Head and Neck =	Cranium and Vertebrae
Shoulder =	Scapula and Humerus
Chest =	Ribs and Sternum
Elbow =	Humerus, Radius, Ulna
Hip =	Pelvis, Femur
Knee =	Femur, Tibia (Patella doesn't articulate)
Ankle =	Tibia, Fibula, Talus

Function of a Skeleton

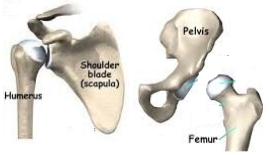
Support:	the bones are solid and rigid. They keep us upright and hold the rest of the body – the muscles and organs – in place.
Movement:	the skeleton helps the body move by providing anchor points for the muscles to pull against.
Structural shape and points for attachment:	the skeleton gives us our general shape such as height and build. The skeleton also provides anchorage points for the muscles to attach via tendons, so when muscles contract movement occurs.
Protection:	certain parts of the skeleton enclose and protect the body's organs from external forces e.g. the brain is inside the cranium. This function is especially important in activities that involve contact. E.g. rugby, boxing.
Production of Blood Cells:	the bone marrow in long bones and ribs produce red and white blood cells.
Mineral Storage:	bones store several minerals e.g. calcium, which can be released into the blood when needed.

Types of Joint & Bones of the Skeleton

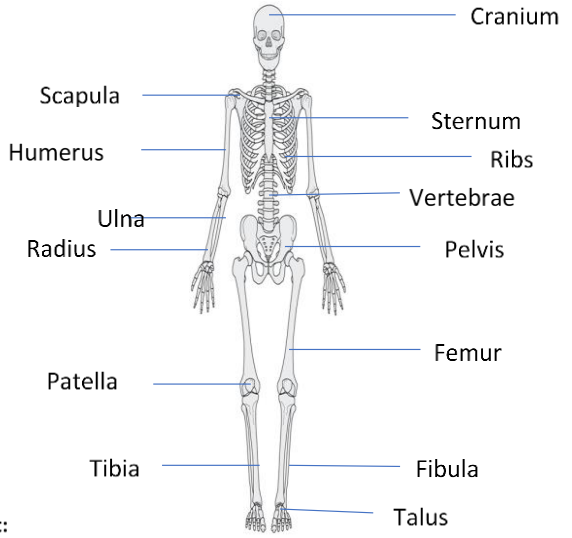
Hinge Joint

Location in Body: Knee and Elbow
Type of Movement Allowed by Joint: Flexion and Extension

Ball and Socket Joint



Location in Body: Shoulder and Hip
Type of Movement Allowed by Joint: Flexion, Extension, Adduction, Abduction, Rotation & Circumduction



Practical work vocabulary – the words have the same meaning in all three science subjects. You are expected to know these definitions in the exams. Learn the spellings and definitions.

Vocabulary taught in Topic 1 - Energy		
Vocabulary	**Learn**	✓
Data	Information, either qualitative or quantitative, that has been collected	
Fair Test	A fair test is one in which only the independent variable has been allowed to affect the dependent variable	
Interval	The quantity between readings	
Reproducible	If the investigation is repeated by another person, or by using different equipment or techniques, and the same results are obtained	
Resolution	This is the smallest change in the quantity that can be measured by the measuring instrument	
Variables	These are physical, chemical or biological quantities or characteristics	
Categoric variables	These have values that are labels, e.g. names of plants or types of material	
Continuous variables	These can have values that can be given a magnitude either by counting or by measurement	
Control variable	This is one which may, in addition to the independent variable, affect the outcome of the investigation and therefore has to be kept constant or at least monitored	
Dependent variable	The variable of which the value is measured for each and every change in the independent variable	
Independent variable	The variable for which values are changed or selected by the investigator	

Vocabulary taught in Topic 5a – Forces		
Vocabulary	**Learn**	✓
Accuracy	A measurement result is considered accurate if it is judged to be close to the true value	
Measurement error	The difference between a measured value and the true value	
True value	This is the value that would be obtained in an ideal measurement	
Calibration	Marking a scale on a measuring instrument.	
Systematic error	These cause readings to differ from the true value by a consistent amount each time a measurement is made.	
Zero error	Any indication that a measuring system gives a false reading when the true value of a measured quantity is zero, eg the needle on an ammeter failing to return to zero when no current flows.	
Hypothesis	A proposal intended to explain certain facts or observations	
Prediction	A prediction is a statement suggesting what will happen in the future, based on observation, experience or a hypothesis	

Vocabulary taught in Topic 3 – Particle Model of Matter		
Vocabulary	**Learn**	
Anomalies	These are values in a set of results which are judged not to be part of the variation caused by random uncertainty	
Random Error	These cause readings to be spread about the true value, due to results varying in an unpredictable way from one measurement to the next. Random errors are present when any measurement is made and cannot be corrected. The effect of random errors can be reduced by making more measurements and calculating a new mean	
Range	The maximum and minimum values of the independent or dependent variables; important in ensuring that any pattern is detected.	
Precision	Precise measurements are ones in which there is very little spread about the mean value. Precision depends only on the extent of random errors – it gives no indication of how close results are to the true value	
Repeatable	A measurement is repeatable if the original experimenter repeats the investigation using same method and equipment and obtains the same results.	
Sketch graph	A line graph, not necessarily on a grid, that shows the general shape of the relationship between two variables. It will not have any points plotted and although the axes should be labelled they may not be scaled	

Vocabulary taught in Topic 8 - Space		
Vocabulary	**Learn**	✓
Evidence	Data which has been shown to be valid	
Validity	Suitability of the investigative procedure to answer the question being asked	
Valid conclusion	A conclusion supported by valid data, obtained from an appropriate experimental design and based on sound reasoning	

Prefix	Abbreviation	Power of ten
Giga–	G	10^9
Mega–	M	10^6
Kilo–	k	10^3
Centi–	c	10^{-2}
Milli–	m	10^{-3}
Micro–	μ	10^{-6}
Nano–	n	10^{-9}

Keyword	Learn	✓
Energy store	Name the different stores: kinetic, chemical, thermal (internal), gravitational potential, magnetic, electrostatic, elastic potential and nuclear	
Energy transfer	Can be done by waves (light and sound), electrical and work.	
System	An object or a group of objects that interact	
Principle of conservation of energy	Energy can be transferred from one store to another, but energy cannot be created or destroyed	
Kinetic energy	The amount of energy stored in a moving object	
Gravitational potential energy	The amount of energy stored in an object raised above the ground	
Elastic potential energy	The amount of energy stored in a stretched spring	
Spring constant	The force needed to stretch a spring 1 metre	
Work	1 joule of work is done when a force of 1 N causes an object to move 1 m	
Power	The rate at which energy is transferred (or rate at which work is done)	
Specific heat capacity	The amount of energy required to raise the temperature of 1 kg of a substance by 1°C	
Dissipate	To scatter in all directions or to use wastefully	
Thermal conductivity	The higher the thermal conductivity of the material the more the material allows heat to conduct through,	
Efficiency	The proportion of energy that is usefully transferred	
Non-renewable energy resources	Coal, Oil, Gas and Nuclear. These will run out, because there are finite reserves, which cannot be replenished.	
Renewable energy resources	Solar, Wind, Hydroelectric, Wave, Tidal, Geothermal, Biomass/fuel. These will never run out. They are replenished as they are used.	

Quantity	Unit	Symbol
Energy	joule	J
Work	joule	J
Power	watt	W
Mass	kilogram	kg
Extension	metre	m
Height	metre	m
Force	newton	N
Temperature	degrees Celsius	°C
Speed	metres per second	m / s
Spring constant	newtons per metre	N / m
Gravitational field strength	newtons per kilogram	N / kg
Specific heat capacity	joules per kilogram per degree Celsius	J / kg°C

Equations

Kinetic energy = ½ x mass x speed² $E_k = \frac{1}{2} \times m \times v^2$

Elastic potential energy = ½ x spring constant x extension² $E_e = \frac{1}{2} \times k \times e^2$

Gravitational potential energy = mass x gravitational field strength x height $E_p = m \times g \times h$

Work = force x distance moved in the direction of the force $W = F \times s$

$Power = \frac{Energy\ transferred}{Time}$ $P = \frac{E}{t}$ OR $Power = \frac{Work\ done}{Time}$ $P = \frac{W}{t}$

$Efficiency = \frac{Useful\ output}{Total\ input}$

G-d as one.

Monotheistic: G-d is one. Jews believe there is only one G-d.

G-d is an indivisible and eternal being, there is only one G-d worthy of worship and this G-d is the source of all Jewish morality, beliefs and values.

The Shema: an important Jewish prayer that is repeated three times daily. It is the declaration of Jewish faith.

Key quote: "the Lord is One." – The Shema

Creation

Ex Nihilo: the Latin phrase for "From Nothing"

The creation story can be found in Genesis- the first book of the Torah. G-d had the power (omnipotence) to make the world from nothing, hence. He made the world in 6 days and rested on the 7th.

Key quotes: "Let there be light"

"Let us make mankind in our image"

Evil and suffering

Moral evil- caused by humans. A result of free will. The free choice G-d gave us to make our own decisions. This was important so we could really choose to follow G-d. Adam and Eve misused their free will when they ate the forbidden fruit.

Natural evil- caused by nature. Part of G-d's bigger plan for the universe. G-d is transcendent (beyond human understanding and outside the universe), therefore, we cannot understand the complex world G-d has created. Shown in the Book of Job.

Lawgiver and judge

Commandments in Judaism are called **mitzot**. G-d has given Jews 613 in total. An example are the 10 commandments.

G-d will judge how good a person is based on how well they follow the mitzvot and their actions. For example G-judged humanity to be bad so sent the Flood to kill them all apart from Noah. Jews are all judged every New Year/ Rosh Hashanah.

Key quotes: " Do not worship any other G-ds" "Do not murder"

"Now the earth was corrupt in God's sight and was full of violence".

Life after death

Olam Ha-ze: life in the here and now- worry about G-d's judgement in this life and not what might happen when you die!

Olam Ha-ba: the world to come. Many Jews believe in a life after death where our souls will be judged.

Gan Eden: paradise/ heaven.

This is where you will go if you're judged well.

Sheol: a place of waiting where souls will be cleansed (NOT a place of eternal punishment)

Messiah

A future leader of the Jews who will rule over humanity with kindness and justice. He will:

- Be a perfect teacher of God's law
- Be a great political leader - inspirational and a good judge
- Be the bringer of peace to the world, uniting humanity

Key quotes: "He will judge between the nations and will settle disputes for many peoples." (Isaiah 2:4) "He will swallow up death forever. The Sovereign Lord will wipe away the tears from all faces" (Isaiah 25:8)

Abraham:

Covenant: an agreement between G-d and human kind.

G-d promised Abraham a promised land and for him and future Jews. He also promised Abraham many descendants. Abraham had to trust G-d on this as he and he was wife Sarah were really old…but they did have a baby called Isaac. Abraham promised to only follow one G-d.

This agreement still changes behavior of Jews today:

They circumcise baby boys (this was the physical sign of the covenant) Many Jews have a goal of living in Israel (the homeland).

Moses

Moses was born in Egypt when Jews were being kept as slaves. They eventually escaped after G-d sent the 10 Plagues. G-d gave Moses rules to help the Jews live harmoniously. He received the 10 Commandments as part of the Covenant at Sinai, they are seen as the foundation of Jewish. They can be split into two groups:

How to have a good relationship with G-d- "Do not worship any other G-ds"

How to have a good relationship with other humans. -

"Do not murder".

Key moral beliefs

Justice: bringing about what is right or fair/ making up for a wrong committed.

Tikkun Olam/ Healing the world: being involved in G-d's work to sustain the world. Charity work, helping the environment, praying.

Kindness to others: positive, caring actions which should be shown to all loving things.

Jewish charities: GIFT or Jewish World Relief.

Sanctity of life :

all life is holy as it is created by G-d. Human life should not be misused or abused.

"So God created mankind in his own image." (Genesis 1:27)
We are all made in the image of G-d making us sacred, holy and worthy of protection.

"He who destroys one soul of a human being, the Scripture considers him as if he should destroy a whole world."
Only G-d can decide when a life should end and any action that ends a life is considered sinful and as undermining G-d's authority and power. Eg. Murder and active euthanasia would be forbidden.

Pikuach Nefesh;

the obligation to save a life, even if doing so breaks Jewish law.

"The Sabbath has been given to you, not you to the Sabbath" ***Talmud***

G-d gave us rules to help us have a better life, so if we have to break them to save a life that is okay. One of the rules you might break is working on the Sabbath (day of rest). Eg.

- ✓ A doctor could go to work.
- ✓ You could drive a car to take someone to the hospital.

Free will and the mitzvot

Free will: the belief that G-d gives people the opportunity to make decisions for themselves.

"To Adam he said…' **'Cursed is the ground because of you;**'" This shows that because Adam and Eve misused their free will they would be punished/ cursed.

Using Free will for good actions	Using Free will to justify bad actions
A life of fulfillment Will bring you closer to G-d. G-d will judge you well	You will distance yourself from G-d. G-d will not judge you well in this life or in the afterlife.

Present tense

-ar verb endings present			
-o		-amos	
-as		-áis	
-a		-an	

-er verb endings present			
-o		-emos	
-es		-éis	
-e		-en	

-ir verb endings present			
-o		-imos	
-es		-ís	
-e		-en	

Near future tense

The near future		
voy a visitar monumentos	I am going to visit monuments	
voy a sacar fotos	I am going to take photos	
voy a descansar en la playa	I am going to relax at the beach	
voy a bailar	I am going to dance	
voy a comer paella	I am going to eat paella	
voy a beber limonada	I am going to drink lemonade	

<u>The near future:</u>
It is the equivalent of 'I am going to…' in English.

Form of 'ir' + a + infinitive
e.g. Voy + a + hacer

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	

¿Cuándo?		
Luego	Then	
Más tarde	Later	
Después	After	
El primer día	On the first day	
El último día	On the last day	
Otro día	Another day	
Por la mañana	In the morning	
Por la tarde	In the afternoon	

¿Cómo te fue?		
Fue divertido	It was fun	
Fue estupendo	It was brilliant	
Fue fenomenal	It was fantastic	
Fue flipante	It was awesome	
Fue genial	It was great	
Fue guay	It was cool	
Fue regular	It was OK	
Fue un desastre	It was a disaster	
Fue horrible	It was horrible	
Fue horroroso	It was terrible	
Fue raro	It was weird	

¿Por qué?		
Me gustó	I liked (it)	
Me encantó	I loved (it)	
porque	Because	
Visité monumentos interesantes	I visited interesting monuments	
Conocí a una chica guapa	I met a pretty girl	
Hizo buen tiempo	It was good weather	
Comí algo y vomité	I ate something bad and vomited	
Llovió	It rained	
Perdí mi móvil	I lost my phone	
Perdí mi pasaporte	I lost my passport	

Present tense time phrases		
normalmente	normally	
generalmente	generally	
todos los años	every year	
cada año	each year	
todos los veranos	every summer	

El transporte		
a pie	on foot	
en coche	by car	
en avión	by plane	
en barco	by boat	
en tren	by train	
en motocicleta	by motorbike	
en autocar	by coach	
en bicicleta	by bike	

¿Con quién?		
con mi familia	with my family	
con mi clase	with my class	
con mis amigos	with my friends	
con mis padres	with my parents	

Los países		
Escocia	Scotland	
España	Spain	
Francia	France	
Gales	Wales	
Grecia	Greece	
Inglaterra	England	
Irlanda	Ireland	
Italia	Italy	

¿Qué haces cuando estás de vacaciones? (-ar verbs)		
visito monumentos	I visit monuments	
compro una camiseta	I buy a t-shirt	
saco fotos	I take photos	
monto en bicicleta	I ride a bike	
descanso en la playa	I relax at the beach	
mando SMS	I send texts	
bailo	I dance	
nado en el mar	I swim in the sea	
tomo el sol	I sunbathe	

¿Qué haces cuando estás de vacaciones? (-er/-ir verbs)		
como paella	I eat paella	
salgo con mi hermana	I go out with my sister	
escribo SMS	I write messages	
veo castillos interesantes	I see interesting castles	
bebo limonada	I drink lemonade	

¿Qué tiempo hace? (What is the weather like?)		
hace buen tiempo	it's nice weather	
hace mal tiempo	it's bad weather	
hace calor/frío	it's hot/cold	
hace sol	it's sunny	
hace viento	it's windy	
llueve	it's raining	
nieva	it's snowing	
el tiempo es variable	the weather is variable	
hay niebla/tormenta	there's fog/a storm	
hay chubascos	there are showers	
está nublado	it's cloudy	

¿Qué hiciste? (-ar verbs)		
visité monumentos	I visited monuments	
compré una camiseta	I bought a t-shirt	
saqué* fotos	I took photos	
monté en bicicleta	I rode a bike	
descansé en la playa	I relaxed at the beach	
mandé SMS	I sent texts	
bailé	I danced	
nadé en el mar	I swam in the sea	
tomé el sol	I sunbathed	

¿Qué hiciste? (-er/-ir verbs)		
comí paella	I ate paella	
salí con mi hermana	I went out with my sister	
escribí SMS	I wrote messages	
vi* castillos interesantes	I saw interesting castles	
bebí limonada	I drink lemonade	

'ir' (to go) in the preterite tense		
fui	I went	
fuiste	you went	
fue	he/she went **& it was**	
fuimos	we went	
fuisteis	you all went	
fueron	they went	

Describing a photo		
En la foto	In the photo	
Hay	There is/are	
Puedo ver	I can see	
A la izquierda	On the left	
A la derecha	On the right	
En el centro	In the centre	

Timetable

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