BOURNEMOUTH SCHOOL

Year 9

Knowledge Organiser 1

Autumn Term: 2025-26

Name: Master Copy

Registration Form: 9

✓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.**

Success Club

You can attend Success Club every Monday to Thursday in room 53 until 5pm. This is a quiet room where you can complete your homework rather than doing it at home. There are also Sixth form helpers and staff who will be there to help you if you need it. You can also choose to work in the Library on a Monday, Tuesday and Thursday until 4:30 and a Friday until 4.

Checking:

Your teachers will check your Homework Learning Journal at least once a cycle. 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 Detention where you will be expected to complete your homework.

You can attend Success Club every Monday to Thursday in room 53 or the library to complete homework. Sixth form helpers and staff will be there to help you if you need it. Your teachers will check your Homework Learning Journal at least once a cycle. 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 Detention where you will be expected to 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 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.

Year 9 'Power & Conflict' Knowledge Organiser

Kamikaze by Beatrice Garland ✓

Themes: : Conflict, Power, Patriotism, Shame, Nature, Childhood

Message & Context

- This poem explores a kamikaze pilot's journey towards battle, his decision to return, and how he is shunned when he returns home.
- As he looks down at the sea, the beauty of nature and memories of childhood make him decide to turn back.
- To surrender meant shame for you and your family, and rejection by society: "he must have wondered which had been the better way to die".

Language

- "dark shoals of fish flashing silver": Sibilant image links to a Samurai sword – conveys the conflict between his love for nature/life and his sense of duty.
- "journey into history" - act of sacrifice is seen as honourable.
- "they treated him as though he no longer existed": cruel irony – he chose to live but now must live as though he is dead.

Form and Structure

- Narrative and speaker is third person, representing the distance between her and her father, and his rejection by society.
- The first five stanzas are ordered (whilst he is flying on his set mission).
- Only full stop is at the end of Stanza Five: he has made his decision to turn back.
- The final two are in italics and have longer line to represent the fallout of his decision: his life has shifted and will no longer be the same.
- Direct speech ("My mother never spoke again/in his presence") personal – highlighting the extent in which he was rejected.

War Photographer by Carol Ann Duffy ✓

Themes: Conflict, Suffering, Reality of War

Message & Context

- Duffy conveys both the brutality of war and the indifference of those who might view the photos in newspapers and magazines: those who live in comfort and are unaffected by war.
- Duffy was inspired to write this poem by her friendship with a war photographer. She was intrigued by the challenge faced by these people whose job requires them to record terrible, horrific events without being able to directly help their subjects.

Language

- "All flesh is grass": Biblical reference that means all human life is temporary – we all die eventually.
- "He has a job to do": like a soldier, the photographer has a sense of duty.
- "running children in a nightmare heat": emotive imagery with connotations of hell.
- "blood stained into a foreign dust": lasting impact of war – links to Remains and 'blood shadow'.
- "they do not care": 'they' is ambiguous – it could refer to readers or the wider world.

Form and Structure

- Enjambment – reinforces the sense that the world is out of order and confused.
- Rhyme reinforces the idea that he is trying to bring order to a chaotic world – to create an understanding.
- Contrasts: imagery of rural England and nightmare war zones.
- Third stanza: A specific image – and a memory – appears before him

Poppies by Jane Weir ✓

Themes: Bravery, Reality of War, Suffering, Childhood

Message & Context

- A modern poem that offers an alternative interpretation of bravery in conflict: it does not focus on a soldier in battle but on the mother who is left behind and must cope with his death.
- Set around the time of the Iraq and Afghan wars, but the conflict is deliberately ambiguous to give the poem a timeless relevance to all mothers and families.

Language

- Contrasting semantic fields of home/childhood ("cat hairs", "play at being Eskimos", "bedroom") with war/injury ("blockade", bandaged", "reinforcements")
- Aural (sound) imagery: "All my words flattened, rolled, turned into felt" shows pain and inability to speak, and "I listened, hoping to hear your playground voice catching on the wind" shows longing for dead son.
- "I was brave, as I walked with you, to the front door": different perspective of bravery in conflict.

Form and Structure

- This is an Elegy, a poem of mourning.
- No rhyme scheme makes it melancholic
- Enjambment gives it an anecdotal tone.
- Nearly half the lines have caesura – she is trying to hold it together, but can't speak fluently as she is breaking inside.

Remains by Simon Armitage ✓

Themes: Conflict, Suffering, Reality of War

Message & Context:

- To show the reader that mental suffering can persist long after physical conflict is over.
- Poem coincided with increased awareness of PTSD amongst the military, and aroused sympathy amongst the public – many of whom were opposed to the war.

Language

- "Remains" - the images and suffering remain.
- "Legs it up the road" - colloquial language = authentic voice
- "Then he's carted off in the back of a lorry" – reduction of humanity to waste or cattle
- "he's here in my head when I close my eyes / dug in behind enemy lines" – metaphor for a war in his head; the PTSD is entrenched.
- "blood-shadow" - metaphor. 'Shadow' has connotations of being followed/ haunted by the memory.

Form and Structure

- Monologue, told in the present tense to convey a flashback (a symptom of PTSD).
- First four stanzas are set in Iraq; last three are at home, showing the aftermath.
- Enjambment between lines and stanzas conveys his conversational tone and gives it a fast pace, especially when conveying the horror of the killing
- Repetition of 'Probably armed, Possibly not" conveys guilt and bitterness.

Exposure by Wilfred Owen ✓

Themes: Conflict, Suffering, Nature, Reality of War

Message & Context:

- Owen wanted to draw attention to the suffering, monotony and futility of war.
- Written in 1917 before Owen went on to win the Military Cross for bravery. Killed in battle in 1918: the poem has authenticity as it is written by an actual soldier.

Language

- "Our brains ache" physical (cold) suffering and mental (PTSD or shell shock) suffering.
- Semantic field of weather: weather is the enemy. -"the merciless iced east winds that knive us…" personification (cruel and murderous wind). Sibilance (cutting/slicing sound of wind)
- Repetition of pronouns 'we' and 'our' – conveys togetherness and collective suffering of soldiers.

Form and Structure

- Contrast of Cold>Warm>Cold imagery conveys Suffering>Delusions>Death of the hypothermic soldier.
- Refrain of "but nothing happens" creates circular structure implying never ending suffering
- Rhyme scheme ABBA and hexameter gives the poem structure and emphasises the monotony.
- Pararhymes (half rhymes) ("nervous / knife us") only barely hold the poem together, like the men.

Charge of the Light Brigade by Alfred, Lord Tennyson ✓

Themes: Conflict, Suffering, Reality of War, Patriotism

Message and Context

- It is a celebration of the men's courage and devotion to their country, symbols of the might of the British Empire.
- As Poet Laureate, he had a responsibility to inspire the nation and portray the war in a positive light: propaganda.
- This was a controversial point to make in Victorian times when blind devotion to power was expected.

Language

- -"Into the valley of Death": this Biblical imagery portrays war as a supremely powerful, or even spiritual, experience.
- "jaws of Death" and "mouth of Hell": presents war as an animal that consumes its victims. -"Honour the Light Brigade/Noble six hundred": language glorifies the soldiers, even in death.

Form and Structure

- This is a ballad, a form of poetry to remember historical events – we should remember their courage.
- 6 verses, each representing 100 men who took part.
- First stanza tightly structured, mirroring the cavalry formation. Structure becomes awkward to reflect the chaos of battle and the fewer men returning alive.
- Dactylic dimeter (HALF-a league / DUM-de-de) mirrors the sound of horses galloping and increases the poem's pace.

Bayonet Charge by Ted Hughes ✓

Themes: Reality of War, Nature, Bravery, Patriotism

Message & Context

- Steps inside the body and mind of the speaker to show how this act transforms a soldier from a living thinking person into a dangerous weapon of war.
- Hughes dramatises the struggle between a man's thoughts and actions
- Hughes' father had survived the battle of Gallipoli in World War 1, and so he may have wished to draw attention to the hardships of trench warfare.

Language

- "The patriotic tear that brimmed in his eye Sweating like molten iron": his sense of duty (tear) has now turned into the hot sweat of fear and pain.
- "cold clockwork of the stars and nations": the soldiers are part of a cold and uncaring machine of war.
- "his foot hung like statuary in midstride.": he is frozen with fear/bewilderment.
- The caesura (full stop) jolts him back to reality.

Form and Structure

- The poem starts 'in medias res': in the middle of the action, to convey shock and pace.
- Enjambment maintains the momentum of the charge.
- Time stands still in the second stanza to convey the soldier's bewilderment and reflective thoughts.

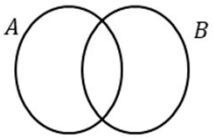
Year 9 – Maths – Autumn 1 – Units 1 & 2

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

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

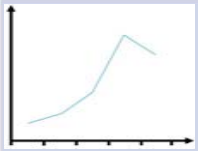
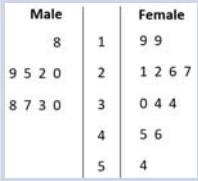
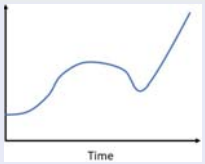
Standard form operations

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

note the powers must be the same

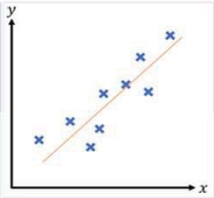
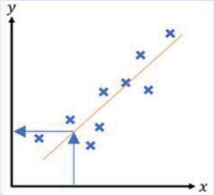
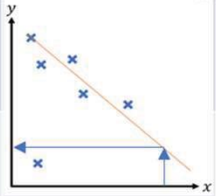
Index Laws

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

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 $= \frac{\Sigma fx}{\Sigma f}$

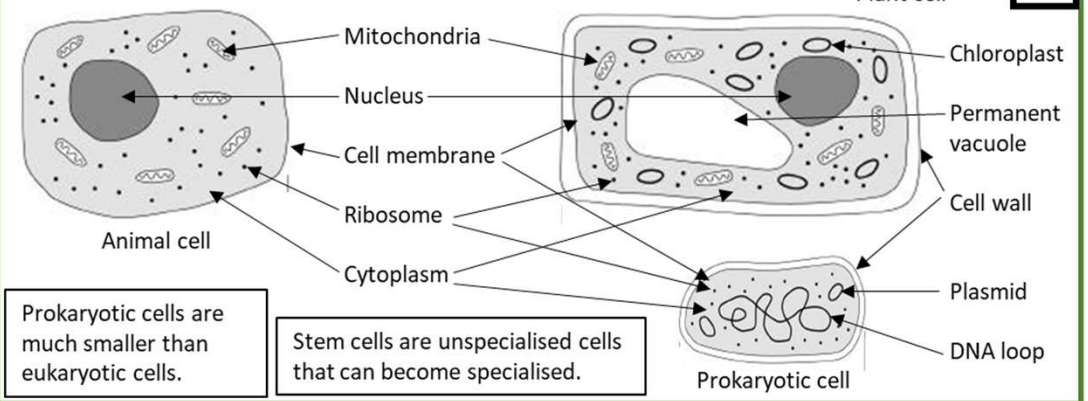
Mean from individual data $= \frac{\Sigma x}{f}$

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.	

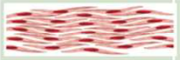
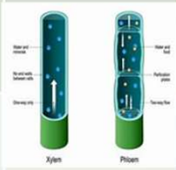
Learn to draw and label these diagrams. Learn one type of cell at a time.



Prokaryotic cells are much smaller than eukaryotic cells.

Stem cells are unspecialised cells that can become specialised.

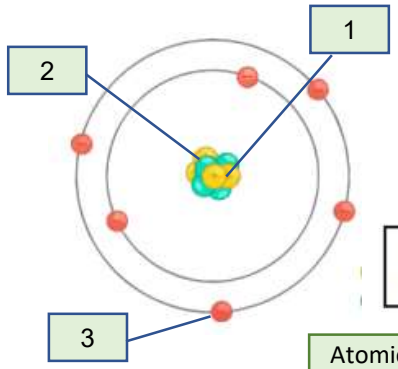
Sources of stem cells which can be used to help conditions such as diabetes and paralysis.		
Embryo : can be cloned and made to differentiate into most types of cell.	Adult bone marrow : can form many types of cell including blood cells.	Meristem : Can differentiate into any type of plant cell, throughout 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)	

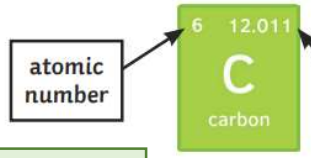
Chapter 1 – Atomic Structure and the Periodic Table

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

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

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}

Bournemouth School – Knowledge Organiser – Year 9

PHYSICS

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 $Power = \frac{Work\ done}{Time}$ $P = \frac{W}{t}$

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

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.

GCSE BUSINESS *Business in the real world* Topic 3.1.1 The Purpose and Nature of Business

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	

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	

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.	

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.	

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. `print("Hello " + name + "!")`	
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 a 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`	

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	`<`
Greater than	`>`
Equal to	`==`
Not equal to	`!=`
Less than or equal to	`<=`
Greater than or equal to	`>=`

Selection (code)	

Python	OCR Ref.

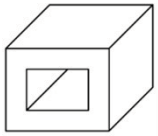
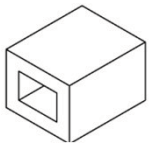
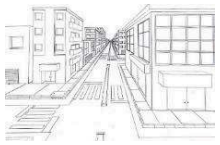
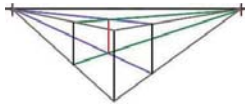
`if value > 50:`
`  print("Over 50")`
`elif value >= 20:`
`  print("20 or over")`
`else:`
`  print("Under 20")`
	`if value > 50 then`
	`  print("Over 50")`
	`elseif value >= 20 then`
	`  print("20 or over")`
	`else`
	`  print("Under 20")`
	`endif`

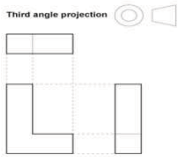
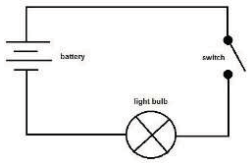
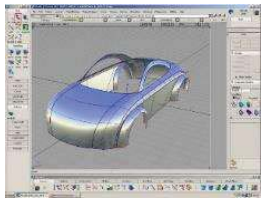
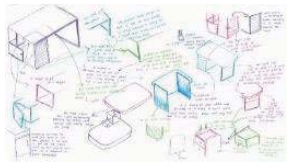
GCSE Design Technology: CORE 1.15 Designers and companies

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 45º.
	Isometric		A style of 3D drawing, drawn at 30º.
	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, along the same axis. Usually drawn in isometric.
	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.

Name: Date:

Year 9 Health and Safety and Hygiene

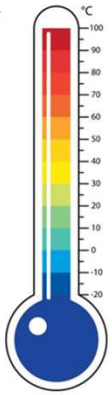
- Good food safety and hygiene practices are essential to reduce the risk of food poisoning.

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

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

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

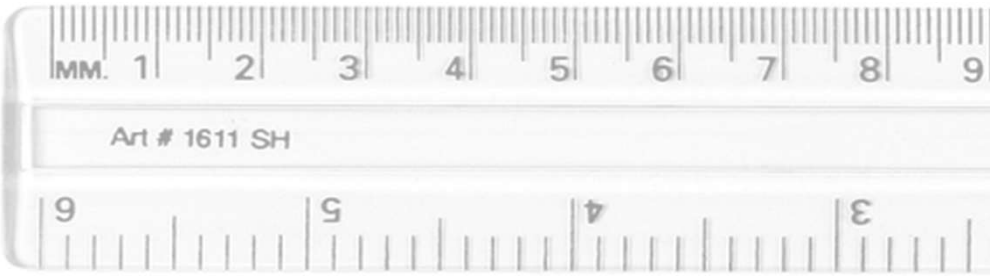
Chopping boards- White- Dairy and Bakery.
Red – raw meat Blue- Raw Fish
Yellow- Cooked Meat
Brown- Vegetables
Green- Fruit

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

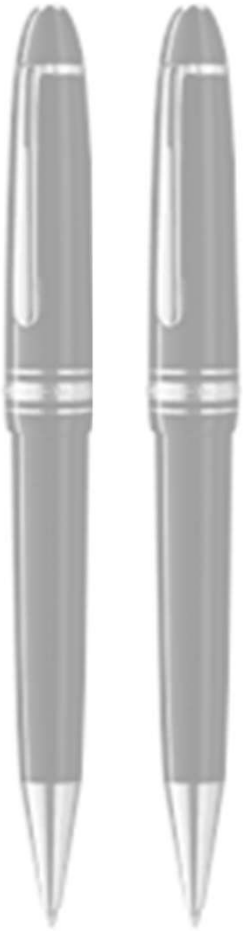
Health and Safety- Before using electrical equipment- Ensure all plugs are secure and cables are intact. Food processors, blenders and deep fat fryers should be on a level surface, do not over fill them. Do not allow cables and leads to become a trip hazard.
Do not allow electrical components near to 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.

Equipment

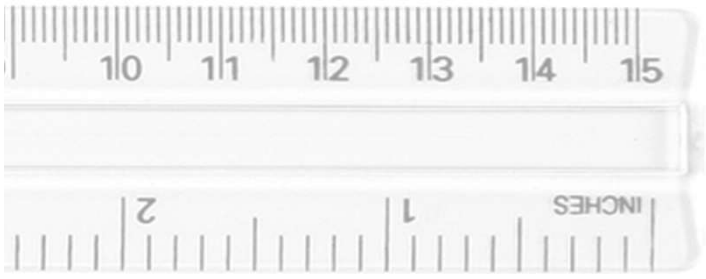
ID Card

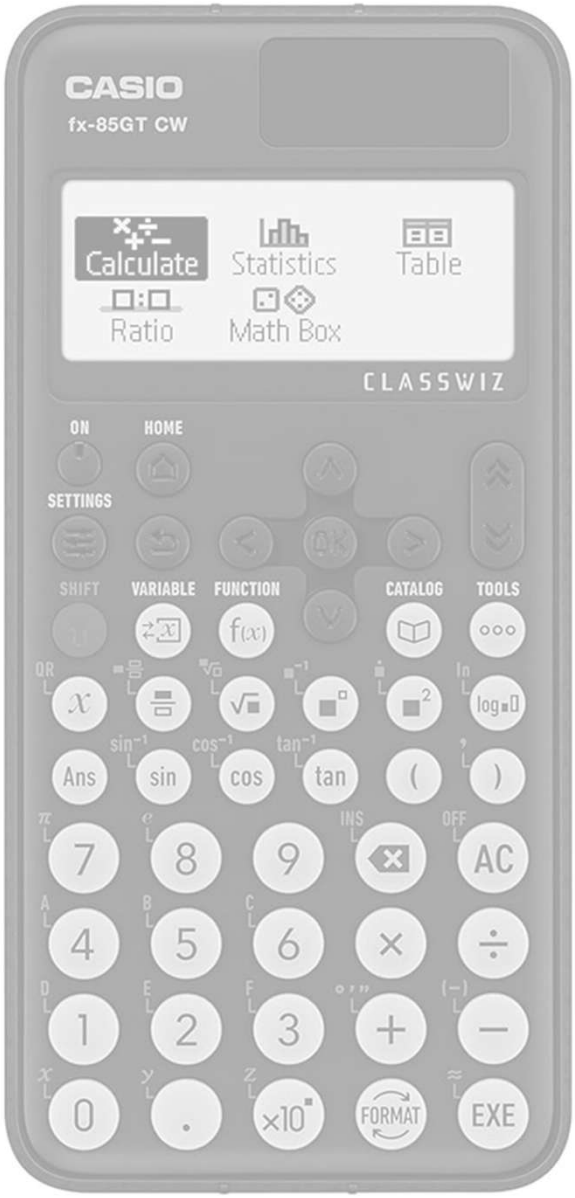


Check



- ID card
- Green and purple pens
- Whiteboard pens
- Black/blue pens
- Glue stick
- Pencil
- Ruler
- Calculator





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

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

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

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

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

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

The **French verbs that take "être" in the passé composé** are often remembered using the mnemonic "Mrs. Vandertramp." Here are the key verbs:

- **M**onter (to go up)
- **R**ester (to stay)
- **S**ortir (to go out)
- **V**enir (to come)
- **A**rriver (to arrive)
- **N**aître (to be born)
- **D**escendre (to go down)
- **E**ntrer (to enter)
- **R**etourner (to return)
- **T**omber (to fall)
- **R**entrer (to go back)
- **A**ller (to go)
- **M**ourir (to die)
- **P**artir (to leave)

The past participle must agree in gender and in number: e.g je suis allée (f)

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	I download songs
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.
J'organise des sorties.	I organise outings.
Je partage des photos.	I 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

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

Development brings change. As countries develop, GDP per capita increases.

As a country develops:

-Birth rate, death rate, dependency ratios, fertility rates, and maternal mortality rates decrease.

-Life expectancy, years of schooling and literacy rates all increase.

Women's health and education also changes as countries develop.

3. Causes of Global Inequality

Wealth is not spread evenly across all countries in the world.
There are several factors that have led to inequality in the world.

1. Climate
2. Topography (shape of land)
3. Education
4. Health
5. Colonialism
6. Neo-colonialism
7. Economic
8. Political

4. Consequences of Global Inequality

Inequalities have significant consequences for people, particularly those in developing countries.

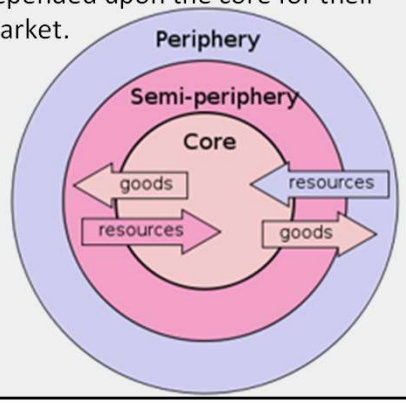
- Education: Poorer countries cannot afford to invest as much in education as richer countries. Lack of education means people can't get better paid, skilled jobs in the future, so the cycle of poverty continues.
- Health: People in developing countries are at higher risk for many diseases than people in developed countries, leading to lower life expectancies. Infant mortality is much higher in developing countries.
- Politics: Inequalities can increase political instability, crime and discontent in poorer countries. This means civil wars are more likely in developing countries.
- Conflict can increase inequality – poverty increases as money is spent on fighting rather than development.

5. Development Theories

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.

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.

Globalisation happens through…

- Inter-dependence between countries
- Increasing volumes and variety of trade in goods and services
- Increased spread of technology
- International flows of investment into other countries
- Outsourcing (mainly for cheap labour)
- Culture through global media companies

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

It caused a global shift - manufacturing from developed to the developing countries. This shift can be explained using the Clark-Fisher model – changes in employment structure as a countries economy develops.

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

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/I'm 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

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

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

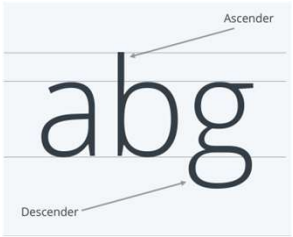
	essen	tragen	lesen	arbeiten
ich	esse	trage	lese	arbeite
du	isst	trägst	liest	arbeitest*
er/sie/es	isst	trägt	liest	arbeitet*

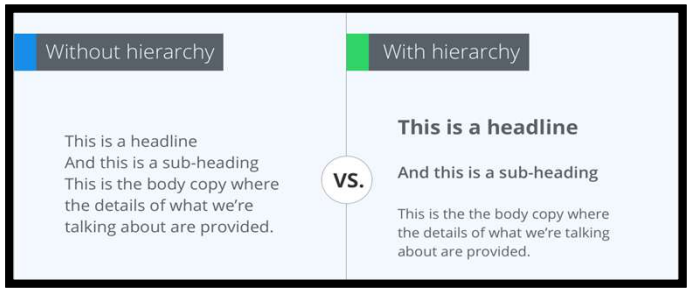
müssen – to be have to/must	
ich muss	I have to
du musst	you have to
er/sie/es/ man muss	he/she/it/one has to
wir müssen	we have to
ihr müsst	you have to
sie/Sie müssen	they/you have to

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

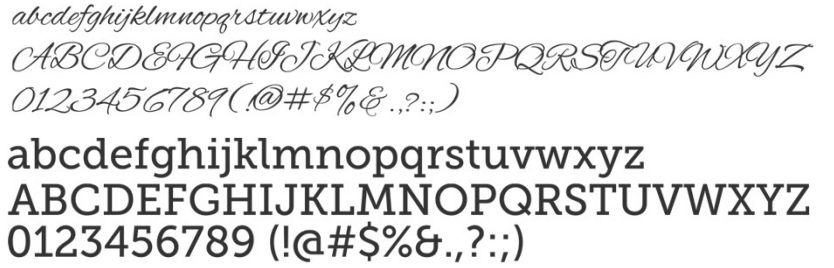
Typography terms





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.



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)	

Year 9
Unit: Elements of music

Bournemouth School
music
department

Tempo

Allegro	Fast
Andante	Medium/walking pace
Lento	Slow
Accelerando	Getting gradually faster
Ritenuto	Getting gradually slower

Texture

Homophonic melody part and other accompanying parts.
Monophonic only one note heard at a time – a single melodic line.
Polyphonic two or more simultaneous and largely independent melody lines.
2-part texture music for two 'parts' (i.e. two melodic lines). Also 3-part, 4-part etc.
Imitation two or more parts share the same melodic idea (not necessarily in full, exactly or at the same pitch). Each new part enters separately, the preceding one continuing with shared or new material.

Instruments

String techniques:
Arco – using the bow
Pizzicato - plucking
Harmonic – touching the string to produce a higher pitch ethereal sound
double stopping – playing 2 strings at once
Tremolo – rapid, trembling movements of the bow
muted (*con sordini*) – using mutes
Glissando – pitch slide

Guitar techniques
hammer-on – putting a finger down on the fret board once the note is sounded. Makes the pitch higher
pull-off – taking a finger off the fret board once a note is sounded. Makes the pitch lower
Harmonic – Touching the string to produce a higher pitch ethereal sound
palm muting – lightly touching the strings with the palm of the right hand to produce a deadened sound

Melody

Direction – up or down: use the words **ascending** and **descending**

Movement – steps or leaps: use the words **conjunct** or **disjunct**
You can also talk about specific intervals

Phrase lengths:
- Are the phrases equal or unequal in length?
- Are they question and answer phrases?
- Are any phrases repeated?

Tonality

Major music composed using the notes of the major scale
Minor music composed using the notes of the minor scale
Modal music composed using a scale which is not major or minor, called a mode
Atonal music composed without a fixed scale or tonic (home note)

Modulation

Modulation means key change. Music usually changes key to a closely related key – one which shares a lot of notes with the original key.

Modulations usually go to:
- The dominant (fifth)
- The subdominant (fourth)
- The relative major or minor

Year 9
Unit: Music Theory

Bournemouth School music department

Rhythm

Note	Rest	English	American
		Semibreve	Whole note
		Minim	Half note
		Crotchet	Quarter note
		Quaver	Eighth note
		Semiquaver	Sixteenth note

 **Rhythm dot** adds half the value of the initial note

 **Triplet** three notes taking the usual value of two

 **Tie** one note with the value of both symbols

Time signatures (metre)

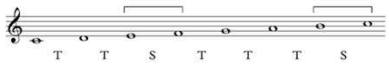
4 – the top number tells us how many beats
4 – the bottom number tells us the type of beats

The bottom number relates to the American note names:

2 = minim beats (half notes)
4 = crotchet beats (quarter notes)
8 = quaver beats (eighth notes)

In **simple metre** the beat divides into two
In **compound metre** the beat divides into three
To work out the time signature in a compound time, divide the top number by 3 to work out the number of beats. The bottom number gives you the value of ⅓ of a beat.

Major scales



All major scales follow this pattern of tones and semitones.

Key signatures
Sharps always go in the order:
Father **C**harles **G**oes **D**own **A**nd **E**nds **B**attle
Flats always go in the order:
Battle **E**nds **A**nd **D**own **G**oes **C**harles' **F**ather

Minor scales
Every major scale has a minor scale which shares the same key signature – the **relative** minor.
In the **harmonic minor** scale we raise the 7th note of the scale by a semitone.

Intervals

An interval is the distance between two notes.

An interval is described by a number and an adjective.

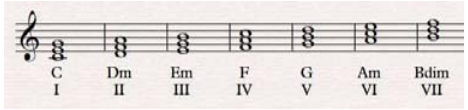
To find the number, count the note names between the bottom and top notes, including both the notes themselves.

Once you have found the number, you need to be able to describe it using one of the following words.

Second, third, sixth, seventh: **major** or **minor** (semitone lower than major)
Fourth, fifth, octave: **perfect**
All intervals: **Augmented** (semitone higher than major or perfect) or **diminished** (semitone lower than minor or perfect)

To work out the type of interval, start from the bottom note. Using the major scale of that note, go up the scale and see if you come to the top note. If you do the interval is **major** or **perfect**. If the note is not part of the major scale, work out whether it is higher or lower than the note in the major scale. If it's higher, the interval is **augmented**; if lower, it's **minor** or **diminished**.

Chords and cadences
In any major scale, we can build up chords on each of the notes of the scale. As well as giving them names (e.g. C, Dm) we also refer to them by their number within the scale:



Cadences are two chords which occur at the end of a phrase or section of music.
They act like musical punctuation. Some sound finished (like a full stop); some leave the music sounding like it wants to carry on (like a comma).
Finished cadences: **Perfect** (V-I; stronger); **Plagal** (IV-I; weaker)
Unfinished cadences: **Imperfect** (ends on V); **Interrupted** (V-vi)

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)


RELATIONSHIPS


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)

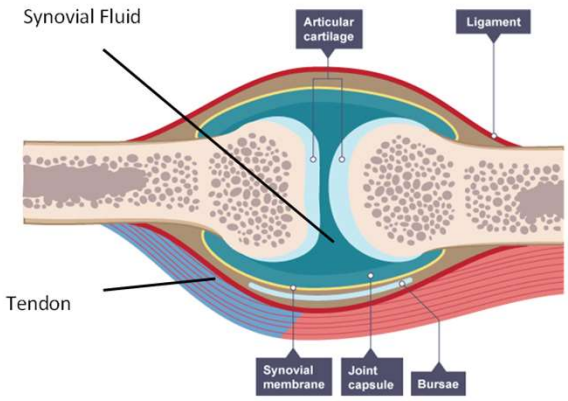
Types of Bones

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

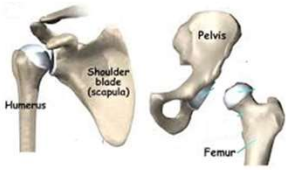
Support:	the bones are solid and rigid. They keep us upright and hold the rest of the body – the muscles and organs – in place.
Movement:	the skeleton helps the body move by providing anchor points for the muscles to pull against.
Structural shape and points for attachment:	the skeleton gives us our 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

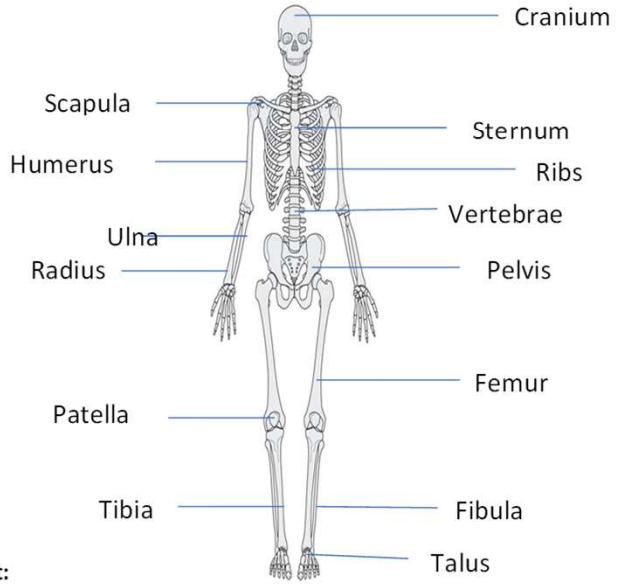
Hinge Joint

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



The nature of God (what is God like?)
- God is omnipotent (all powerful)
- God is omnibenevolent (all loving)
- God is just (fair)

Key Quotations
"For nothing is impossible with God' - shows God is omnipotent
"For God so loved the world, he gave his One and Only Son" - God is omnibenevolent

Creation
Creation - the act by which God brought the universe into being
The Word – term used at the beginning of John's gospel to refer to God the Son
Christians believe that God created the earth and all living things. Some take the creation story in Genesis literally, therefore they believe God created the world in 6 days and rested on the 7th whereas other Christians believe it is symbolic and teaches them about what God is like.
Key quotation -> "in the beginning, God created the heavens and earth"

The Trinity
Trinity - Christians believe there are three persons in the One God: Father, Son and Holy Spirit. Each person of the Trinity is fully God.

The Father - creator of life
The Son - became incarnate through Jesus. Fully God and fully human
The Holy Spirit - guides and comforts Christians
Key quote -> " We believe in one God'

Incarnation
Incarnation - the belief that Jesus was God in human form (becoming flesh, taking a human form)
Jesus was fully God and fully human, which helps explain his miracles and resurrection.
His words and teachings have authority because they are the word of God.
Christians believe that Jesus is the Messiah (saviour)

Key quotation -> "The Word became flesh and made his dwelling among us." John 1:14 NIV

Crucifixion
Crucifixion - Roman method of execution by which criminals were fixed to a cross
- Jesus was accused of blasphemy (proclaiming to be God) and was crucified on Good Friday
- Although he was fully God he still felt pain as he was also fully human
- Christians believe God understands suffering as Jesus suffered and therefore accept suffering as a part of life
- Jesus' death on the cross washed away humanities sins

Key quotation -> 'Father, into your hands I commit my spirit." Luke 23:46 NIV

Resurrection and ascension
Resurrection - rising from the dead. Jesus rising from the dead on Easter Sunday
Ascension - the event, 40 days after Jesus' resurrection, when Jesus returned to God, the Father in heaven
Christianity is based on the belief that Jesus died and resurrected
Resurrection is important as it teaches Christians not to fear death and that their sins will be forgiven if they follow God's laws.
Ascension is important as it shows Jesus is with God in heaven.
Key quotation -> 'He is risen!"

Resurrection and life after death
Christians believe that because Jesus resurrected they will too.
There are different Christian beliefs about resurrection: some believe a person's soul is resurrected straight after death, others believe it happens at the end of time when Jesus returns to play the role of judge.

How does the belief in resurrection impact Christians?
- Means life after death is real
- Gives them confidence in the face of death
- Inspires them to live a good life and follow Gods laws

Key quotation -> "So it will be the resurrection of the dead."

The afterlife and judgement
Day of Judgement - a time when the world will end and every soul will be judged
Christians believe Jesus plays the role of judge as he has lived life as a human and set the path for Christians to follow
They will be judged based on their behaviour and actions as shown in the Parable of the Sheep and Goats

Key quotation -> "I am the way and the truth and the life. No one comes to the Father except through me"
"For I was hungry and you gave me something to eat..."

Heaven and hell
Heaven - a state of eternal happiness (with God)
Hell - place of eternal suffering (separated from God for eternity)
Purgatory - intermediate state where the soul is cleansed (Catholic belief)
Christians believe if they have lived a good life and had faith in God they will be rewarded with heaven and if they have lived a bad life they will be punished with hell.
Some believe that heaven and hell are physical places, whilst others believe they are spiritual places.

The role of Christ in salvation
Atonement - restoring the relationship between God and humans through the life, death and resurrection of Jesus
- Jesus' crucifixion made up for the original sin of Adam and Eve
- The death of Jesus restored the broken relationship between God and humans which allowed for salvation to be achieved
- Christians can now be forgiven for their sins and go to heaven
- Jesus atoned for the sins of humanity

Key quotation -> 'For the wages of sin is death, but the gift of God is eternal life in Christ Jesus our Lord' Romans 6:23 NIV

Sin and salvation
Sin - any thought or action that separates humans from God
Original sin - everyone is built with the urge to sin/Adam and Eve brought sin into the world
Salvation - saving the soul from sin, made possible by Jesus
Grace - God's love which humans do not have to earn

Salvation through good works -> can be achieved by doing good and following God's laws:
"Faith… without action is dead'
Salvation through grace -> salvation is given by God to show his love, does not have to be earnt 'For it is by grace you have been saved"

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	

The near future:

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 malo 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*

¿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 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*

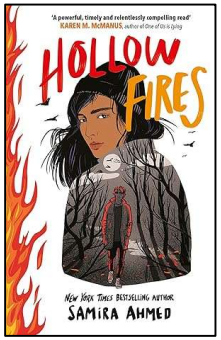
Los países	
Escocia	*Scotland*
España	*Spain*
Francia	*France*
Gales	*Wales*
Grecia	*Greece*
Inglaterra	*England*
Irlanda	*Ireland*
Italia	*Italy*

¿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*

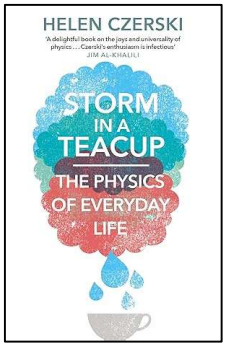
'ir' (to go) in the preterite tense	
fui	*I went*
fuiste	*you went*
fue	*he/she went & it was*
fuimos	*we went*
fuisteis	*you all went*
fueron	*they went*

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*



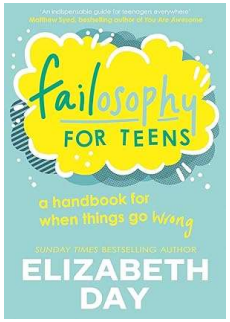
Hollow Fires by Samira Ahmed

Safiya Mirza dreams of becoming a journalist. One thing she's learned as editor of her school newspaper is that a journalist's job is to find the facts and not let personal bias affect the story: but that changes the day she discovers Jawad. Who was the young boy behind the headlines? With Jawad's haunting voice guiding her throughout her investigation, Safiya seeks to tell the whole truth about the murdered boy and those who killed him.



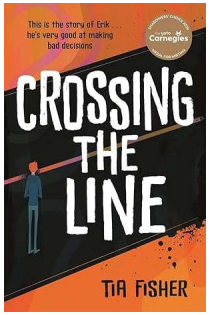
Storm in a Teacup by Helen Czerski

Bringing physics to the everyday in an accessible and fascinating way, Czerski links the little things we see - coffee stains and popcorn - to explain some of the most important science and technology of our time



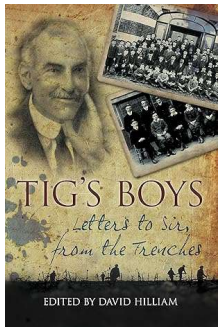
Failosophy for teens by Elizabeth Day

Pretty much all of us would like to feel happier, less anxious, more successful and at ease with ourselves. Right? The key may surprise you: FAILURE! *Failosophy For Teens* is an inspiring and empowering guide to those moments when life doesn't go to plan.



Crossing the Line by Tia Fisher

When Erik's bad behaviour attracts the wrong crowd, he's sucked into a terrifying new world of drug dealing, trap houses and violence. Making money feels good but Erik soon learns that a small favour can become a huge debt. And when his sisters' lives are threatened, Erik will have to cross one more line to save them. Written in stunning verse, this is a poignant story about seeking safety and asking for help in times of crisis.

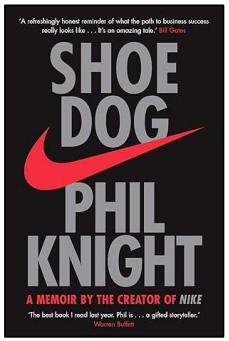


Tig's Boys: Letters to Sir from the Trenches edited by David Hilliam

Bournemouth's grammar school was founded in 1901. Tragically, all boys who were pupils there in its first decade grew up to be of fighting age in the bloodiest war in history. This unique collection of letters from a group of schoolboys who attended Bournemouth School pays tribute to these boys who barely had the chance to become men.

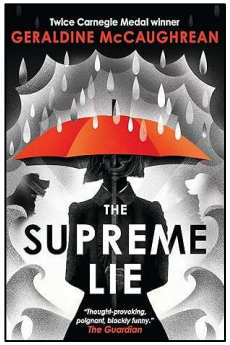
The Silent Striker by Pete Kalu

Marcus is so good at football that there's a very real chance he'll be signed by Manchester United. When he discovers he may be losing his hearing, his whole world falls to pieces and he finds himself having to put them back together on his own. But is this feeling of isolation real or just a consequence of his own behaviour?



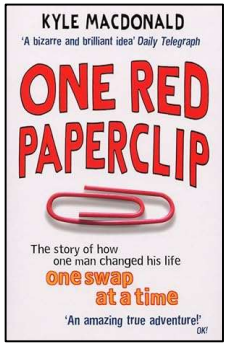
Shoe Dog: A Memoir of the Creator of NIKE by Phil Knight

A book about business, friendship, sport and working together, this is the memoir of the legendary co-founder of Nike - today a globe-spanning icon with current annual sales in excess of $30 billion - he first created the company in 1962 with just $50 that he borrowed from his dad.



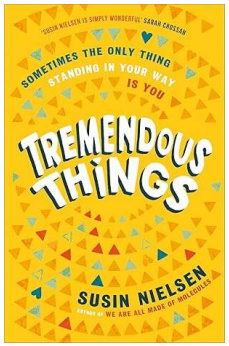
The Supreme Lie by Geraldine McCaughrean

Afalia's tyrannical Head of State, Madame Suprema runs away after the country is hit by unprecedented flooding. To cover up this cowardly act, her maid Gloria is made to step into Madame Suprema's shoes and is thrust into a world of corrupt and desperate politicians. As Gloria becomes aware of the forces toying with her every move, she must take decisions that could save, or end, thousands of lives - including her own.



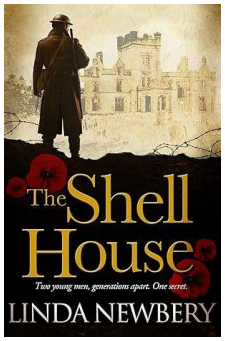
One Red Paperclip by Kyle MacDonald

Kyle MacDonald wanted his own house. The problem was he didn't have a job and he didn't have any money. Thinking back to his childhood he remembered the game he loved to play - Bigger and Better. It was a way of trading your old stuff to get bigger and better new stuff. Legend had it, some people managed to trade an old biro for a brand-new car! This got Kyle thinking. If that kind of entrepreneurial spirit could turn tiny objects into big ones, then why not try trading up to a house? And then he saw it. One red paperclip…



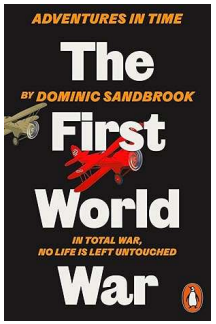
Tremendous Things by Susin Nielsen

Wilbur has spent his teens being bullied and now he's sure he's nothing but a loser. Things start to look up when a mix-up with the French exchange programme results in Wilbur being assigned a girl to look after – He's sure it's love. Wilbur's sometime friend Alex has a plan to give Wilbur the makeover that will get Charlie to love him back. But the course of true amour never did run smooth.



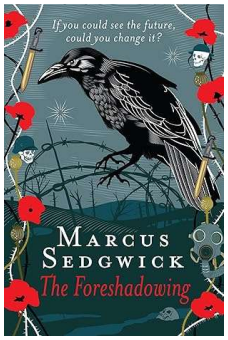
The Shell House by Linda Newberry

Greg's interest in the history of a ruined mansion becomes more personal as he discovers the tragic events that overwhelmed its last inhabitants. His contemporary beliefs become intertwined with those of Edmund, a former resident who was confused about his sexuality and identity.



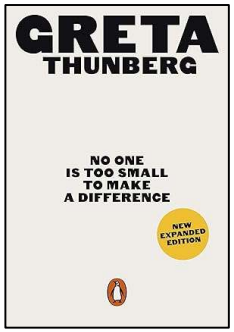
Adventures in Time: The First World War by Dominic Sandbrook

Travel back in time to a world engulfed by war, as historian Dominic Sandbrook takes us on an action-packed adventure. From the soaring heights of an aeroplane cockpit to the desperate depths of the muddy trenches, we are plunged first hand into a war unlike any other. Amid the clash of empires, the future of the world hangs in the balance.



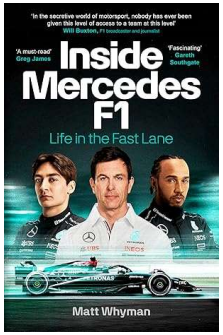
The Foreshadowing by Marcus Sedgwick

Set against the backdrop of World War I, this novel is about a girl with a tragic gift - Sasha can see the future - but can she use her power to save her brothers and change their destiny?



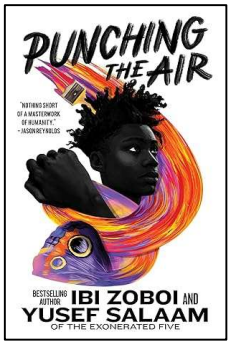
No One Is Too Small by Greta Thunberg

In August 2018 a fifteen-year-old Swedish girl, Greta Thunberg, decided not to go to school one day. Her actions ended up sparking a global movement for action against the climate crisis. This book brings you Greta in her own words, for the first time. Collecting her speeches that have made history across Europe.



Inside Mercedes F1: Life in the Fast Lane by Matt Whyman

Fully embedded across the 2023 and 2024 seasons, award-winning writer Matt Whyman follows decorated drivers Lewis Hamilton and George Russell, Team Principal Toto Wolff, and the extraordinary men and women that design, build and race the team's cars as they fight back – on and off the track.



Punching the Air by Ibi Zoboi and Yusef Salaam

A powerful novel in verse about a boy who is wrongfully incarcerated. Suddenly, at just 16 years old, Amal Shahid's bright future is upended: he is convicted of a crime he didn't commit and sent to prison. Despair and rage almost sink him until he turns to the refuge of his words, his art. This never should have been his story. But can he change it?

Accessit
Bournemouth School Library Catalogue WebApp
https://uk.accessit.online/brn22/#llandingPage

Timetable

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