



Year 10
Knowledge Organiser
M2 2019 (Core)

“Knowledge is a treasure, but practice is the key to it.”
– Lao Tzu

Sapere Aude

What is a Knowledge Organiser?

A Knowledge Organiser (KO) is a set of key facts or information that you need to know and be able to recall to help you master a unit or topic. Each subject has created a list of key facts which covers the basic information that you are expected to learn.

Do I need to bring my Knowledge Organiser to school every day?

Yes, your KO should be brought in every day like your community card and your planner. Your teachers may well want you to use your KOs in lessons. They are yours forever and you may want to annotate or highlight on them when your teacher talks about things in them. They will certainly be used in lessons when you have a cover teacher and you can use them whenever you find yourself with some spare time.

What do I do with my Knowledge Organiser at the end of term?

You should store it, along with previous KOs, in your folder. You are building a revision guide; the information in your KOs are things you will need to continue to know and understand.

What happens if I don't complete my KO homework each night?

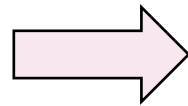
Your mentor will check your KO homework each day using the Homework Timetable and stamp the page for that day to acknowledge successful completion. If you have not completed your KO homework satisfactorily (as set out below) then you will have a compulsory 30 min prep session that same day. If you fail to attend the prep session you will spend the next day in ALC.

What happens if I lose my Knowledge Organiser?

If you lose your KO you will be required to purchase a new one via finance.

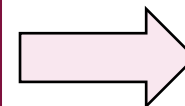
Beginning of each half term:

New Knowledge Organisers (KO) are given to you by your mentors. These are to be stored in your KO folder and brought to school every day.



Every week:

You are expected to show evidence of your learning in each subject. Teachers will start lessons with a "Do Now" activity based around the KOs. Mentors will give house points each morning for outstanding KO homework.



Last week of half term:

You are tested in each subject to show how much knowledge you have learnt.



John 10:10

I came to give life - life in all its fullness
High Expectations - No Excuses

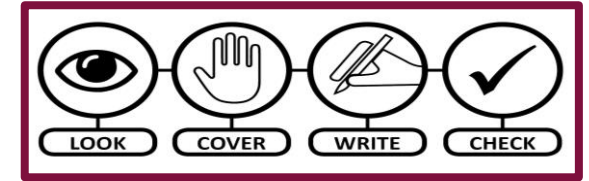


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How to Self-Quiz

Your Knowledge Organiser is a vital document. It contains all the key things from your lessons that you will need to work on committing to your long-term memory.

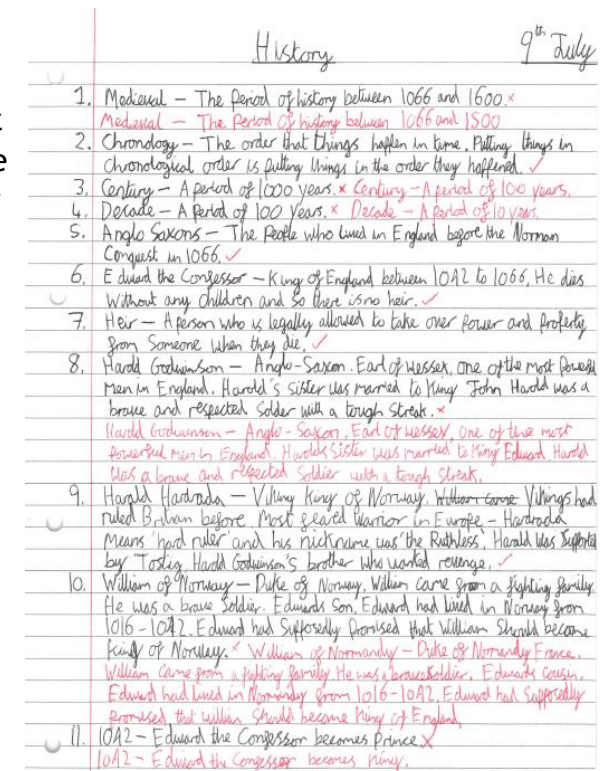
The best method when you are working on memorising things from your Knowledge Organiser is to self-quiz using the look, cover, write, check technique. Use your self-quizzing book for this.



Look	Read the piece of information carefully, two or three times.
Cover	Now cover up what you have just read.
Write	Now try and write down the piece of information you have just read.
Check	Did you write the information down correctly? If not, correct it with a red pen and then repeat!

Each night you should complete one full page (minimum) of self-quizzing in your quiz book. You should write the title (subject) and date at the top of each page. There should be no gaps on the page except for one line underneath the title. You should tick any correct answers and correct any incorrect answers in red pen.

Use the RAG column to self-assess how confident you are on each line once you have completed your self-quizzing.



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John 10:10



Sapere Aude

The Bishop of Winchester Academy Weekly Homework Grid 2019 - 2020

Year 10, Michaelmas 2 - Commencing Monday 4th November

Week	Activity	Monday	Tuesday	Wednesday	Thursday	Friday, Saturday, Sunday	
1 4 th Nov	Self Quizzing	Maths (H) Lines 1-10 Maths (F) Lines 1-12	English Lines 1 - 10 (Language) Lines 1 - 7 (Literature)	History Lines 1 - 7 Geography Lines 1 - 4	Science (Separate) Lines 1 - 9 Science (Combined) Lines 1 - 7 R.S Lines 1-3	Art	1 - 8
						BTEC Sport	1 - 10
						Business	1 - 3
						Computing	1 - 15
						Drama	1 - 18
						Food Tech	1 - 8
						Graphics	1 - 12
						H & SC	1-5
						Media	1 - 9
						Music	1 - 10
						Music Tech	1 - 6
						PE	1 - 5
						Performing Arts	1 - 8
						Photography	1 - 8
						Psychology	1-11
Sociology	1 - 9						
Spanish	203-231						
Sports Leaders	1 - 5						
Sports Science	1 - 5						
2 11 th Nov	Self Quizzing	Maths (H) Lines 11-19 Maths (F) Lines 13-22	English Lines 11 - 15 (Language) Lines 8 - 12 (Literature)	History Lines 8 - 14 Geography Lines 5 - 13	Science (Separate) Lines 10 - 18 Science (Combined) Lines 8 - 14 R.S Lines 4-5	Art	9 - 19
						BTEC Sport	11 - 20
						Business	4 - 7
						Computing	16 - 25
						Drama	19 - 21
						Food Tech	9 - 16
						Graphics	13 - 22
						H & SC	6-10
						Media	10 - 16
						Music	11 - 18
						Music Tech	7 - 11
						PE	6 - 10
						Performing Arts	9 - 13
						Photography	9 - 16
						Psychology	12-16
Sociology	10 - 14						
Spanish	1-231						
Sports Leaders	6 - 10						
Sports Science	6 - 15						



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Sapere Aude

Week	Activity	Monday	Tuesday	Wednesday	Thursday	Friday, Saturday, Sunday	
3 18 th Nov	Self Quizzing	Maths (H) <i>Lines 20-26</i> Maths (F) <i>Lines 23-31</i>	English <i>Lines 16 - 22 (Language) Lines 13 - 17 (Literature)</i>	History <i>Lines 15 - 21</i> Geography <i>Lines 14 - 20</i>	Science (Separate) <i>Lines 19 - 27</i> Science (Combined) <i>Lines 15 - 21</i> R.S <i>Lines 6-7</i>	Art	20 - 27
						BTEC Sport	22 - 27
						Business	8 - 12
						Computing	26 - 34
						Drama	22 - 25
						Food Tech	17 - 24
						Graphics	23 - 32
						H & SC	11-15
						Media	17 - 26
						Music	19 - 27
						Music Tech	12 - 14
						PE	11 - 15
						Performing Arts	14 - 18
						Photography	17 - 24
Psychology	17-29						
Sociology	15 - 22						
Spanish	1- 41						
Sports Leaders	11 - 20						
Sports Science	16 - 25						
4 25 th Nov	Self Quizzing	Maths (H) <i>Lines 27-40</i> Maths (F) <i>Lines 32-40</i>	English <i>Lines 23 - 28 (Language) Lines 18 - 23 (Literature)</i>	History <i>Lines 22 - 28</i> Geography <i>Lines 21 - 27</i>	Science (Separate) <i>Lines 28 - 36</i> Science (Combined) <i>Lines 22 - 38</i> R.S <i>Lines 8-10</i>	Art	28 - 36
						BTEC Sport	28 - 33
						Business	13 - 17
						Computing	35 - 40
						Drama	26 - 29
						Food Tech	25 - 35
						Graphics	33 - 40
						H & SC	16-20
						Media	27 - 31
						Music	28 - 35
						Music Tech	15 - 19
						PE	16 - 20
						Performing Arts	19 - 26
						Photography	25 - 36
Psychology	30-37						
Sociology	23 - 31						
Spanish	126-167						
Sports Leaders	21 - 25						
Sports Science	26 - 38						



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Sapere Aude

Week	Activity	Monday	Tuesday	Wednesday	Thursday	Friday, Saturday, Sunday	
5 2 nd Dec	Self Quizzing	Maths (H) Lines 41-54 Maths (F) Lines 41-49	English Lines 29 - 39 (Language) Lines 24 - 34 (Literature)	History Lines 29 - 36 Geography Lines 28 - 36	Science (Separate) Lines 37 - 46 Science (Combined) Lines 29 - 36 R.S Lines 11-12	Art	37 - 44
						BTEC Sport	34 - 53
						Business	18 - 22
						Computing	41 - 44
						Drama	30 - 31
						Food Tech	36 - 48
						Graphics	41 - 47
						H & SC	21-30
						Media	32 - 37
						Music	36 - 46
						Music Tech	20 - 26
						PE	21 - 29
						Performing Arts	27 - 39
						Photography	37 - 46
						Psychology	38-47
						Sociology	32 - 38
						Spanish	42-94
Sports Leaders	26 -30						
Sports Science	39 - 41						

Set 1 Science will need to do Science KO homework from the separate Science pages, all other sets from the combined Science pages

You will either be doing a Sports Science qualification or a Sports Leaders qualification in your core PE lessons. You only need to do KO homework for one of these sections, speak to your PE teacher if you are unsure which one applies to you.



ENGLISH LANGUAGE - YEAR 10 - M2 Unseen Non-Fiction & Literary Non-Fiction			RAG
1.	Structuring	Foremost, Primarily, Firstly, Secondly, Thirdly, Lastly, Finally	
2.	Adding	Moreover, Furthermore, In addition, As well as, What is more, Besides, In any case, Additionally, Equally, Likewise, It could be argued	
3.	Contrast	On the other hand, Alternatively, However, Nevertheless, Whereas, Whilst, Conversely, Although, Despite, On the contrary	
4.	Compare	Likewise, Similarly, Equally, As well as, Equivalent to	
5.	Generalising	On the whole, In general, Broadly speaking	
6.	Cause/Effect	Therefore, As a result, Consequently, Because, Hence, Since, Until	
7.	Exemplifying	For example, For instance, This can be seen	
8.	Linking	For, Likewise, Similarly, In much the same way, Just like, Correspondingly	
9.	Time	As soon as, At the same time, Meanwhile, Eventually, Initially, Afterwards, Subsequently, Henceforth	
10.	Summing up	In conclusion, In summary, Thus, Accordingly, To sum up, Overall	
11.	Passive Voice	Refers to sentences where the subject is not doing the action but experiencing it , e.g. A wide range of reforms <u>were implemented</u> by Napoleon.	
12.	Demonstrative Pronouns	Helps readers keep track of meaning by clearly signposting the topic being discussed. The four demonstrative pronouns are: this, that, these, those.	
13.	Third Person	Academic writing is generally detached. This means the focus is on the writing rather than the writer , so the voice is 'this essay', or 'this evaluation'.	
14.	Emphasis	There are three main ways of reinforcing or emphasising a point made: using a colon, using a dash or 'in other words' .	
15.	Adverbials	A word or group of words playing the grammatical role of an adverb , e.g. notably, certainly, importantly, of course.	
16.	Analytical Verbs	Seem, tend, look like, appear to be, think, believe, doubt, be sure, indicate, suggest, assume, consider, hypothesize, claim, presume	
17.	Modal Verbs	Will, must, would, may, might, could	



ENGLISH LANGUAGE - YEAR 10 - M2 Unseen Non-Fiction & Literary Non-Fiction			RAG
18.	Adverbs of Frequency	Often, sometimes, usually	
19.	Modal Adverbs	Certainly, definitely, clearly, probably, possibly, perhaps, conceivably	
20.	Modal Adjectives	Certain, definite, clear, probable, possible	
21.	Modal Nouns	Assumption, possibility, probability	
22.	Ambiguous (Ambiguity)	A word/phrase or sentence with two or more possible meanings . <i>E.g. The choice of adjective 'quick' could relate to speed or intelligence.</i>	
23.	Bias	A mental leaning or inclination because of one's point of view. <i>E.g. The writer's affiliation with... means their viewpoint is ...</i>	
24.	Concept	An idea or thought that is explored or developed. <i>E.g. The writer's satirical viewpoint is evident throughout the whole article.</i>	
25.	Criticise	Give judgements about the good and/or bad qualities of theories/opinions supporting decisions with reasons and evidence.	
26.	Define	Explain the exact meaning of a word or phrase.	
27.	Explicit	Clearly stated and leaving nothing implied; there should be no doubt as to the meaning.	
28.	Implicit	Meaning is suggested though not directly expressed. <i>E.g. His frown grew.</i>	
29.	Inference (inferred)	To conclude that something is so in light of something else's being so. <i>E.g. From the trees' 'swaying' we can infer the strength of the wind.</i>	
30.	Pathos	An emotional appeal . To persuade an audience by appealing to emotions. Writers use pathos to invoke sympathy, inspire anger or draw pity.	
31.	Perspective	While reading fiction or non-fiction, readers see and experience through a certain point of view , called a perspective.	
32.	Tone	The author's attitude toward a topic as reflected in his or her writing.	
33.	Voice	The personality of the writer coming through the words.	
34.	Facts and Statistics	True things in the world that can be proved. Statistics are facts involving numbers.	
35.	Opinion	Stating your own personal views on a topic .	
36.	Repetition	Repeating a word or phrase for particular emphasis or effect.	



ENGLISH LANGUAGE - YEAR 10 - M2 Unseen Non-Fiction & Literary Non-Fiction			RAG
37.	Exaggeration (Hyperbole)	Deliberate exaggeration used for emphasis or effect .	
38.	Direct Address	Using the personal pronouns like 'us', 'we' and 'you' to directly address the reader or listener .	
39.	Triplet (Pattern of 3)	Writing words, phrases or even whole sentences in a pattern of 3 for effect .	



ENGLISH LITERATURE - YEAR 10 - M2 Macbeth			RAG
Acts 4 and 5			
1.	4.1 The witches summon three apparitions, each telling another prophecy to Macbeth	1 st apparition= 'Beware Macduff, Beware the Thane of Fife" 2 nd apparition = 'none of woman born shall harm Macbeth' 3 rd apparition= 'until Great Birnham Wood to igh Dunsinane Hill/ Shall come against him'	
2.	4.2 Macbeth has Macduff's wife and children murdered	'Why then, alas, do I put up that womanly defence, to say that I have done no harm?' Lady Macduff serves as a contrast to Lady Macbeth by embracing her femininity and kindness.	
3.	4.3 Macduff learns of his family's murder. He and Malcolm vow revenge on Macbeth	Malcolm: 'Dispute it like a man' i.e. Take revenge by fighting Macbeth. Macduff: 'I shall do so, but I must also feel it as a man'	
4.	5.1 Lady Macbeth sleepwalks. She is weakened by guilt	'Out damned spot!' 'What's done cannot be undone'	
5.	5.2 Malcolm and his English army approach	'Those he commands move only in command, nothing in love' i.e. no one respects Macbeth and only serve him out of fear and duty.	
6.	5.3 Macbeth mocks his servant for being scared of the approaching army	'Thou lily-livered boy'	
7.	5.4 Great Birnham Wood moves	'Let every soldier hew him down a bough' (let every soldier cut down a branch	



ENGLISH LITERATURE - YEAR 10 - M2 Macbeth			RAG
8.	5.5 Lady Macbeth dies; Macbeth becomes cynical and callous about his own life	‘Out, out, brief candle’ ‘I ‘gin to be weary of the sun’ He is tired of life and now has nothing to lose.	
9.	5.6 Malcom and Macduff prepare to attack	‘Make all our trumpets speak; give them all breath/ Those clamorous harbingers of death’ Rhyming couplet conveys decisive power.	
10.	5.7 Macbeth kills young Siward	Young Siward: ‘Thou liest, abhorred tyrant’	
11.	Macbeth chooses to fight to the death and is slain by Macduff	‘Macduff was from his mother’s womb untimely ripped’	
12.	Malcolm is crowned king	Malcolm: ‘this dead butcher and his fiend-like queen’ Macbeth’s tragic legacy is decided.	
Themes			
13.	The Supernatural	The supernatural interacts with characters in different ways: witchcraft directs Macbeth to evil deeds; Lady M appeals to the supernatural to instil power within her; Banquo refuses to submit to the witches’ prophecies .	
14.	Gender, Masculinity and Femininity	Lady Macbeth challenges expectations about what it means to be a woman (be submissive, bear children, lack ambition) and challenges the masculinity of males (Macbeth, when he doesn’t want to commit regicide; Macduff, when he flees to England). The play poses the question of what it means to be a man (ruthless ambition and violence or loyalty and honour?) and what it means to be a woman (passivity or ambition?). Macbeth may try to prove his masculinity on the battlefield to compensate for the fact that he has not successfully fathered a child.	
15.	Fate versus Free Will	It is unclear how much control Macbeth has over his own fate. The witches’ prophecies may be self-fulfilling as Macbeth’s own ambition takes over and he seeks to make the prophecies a reality.	
16.	Loyalty and Trust versus Betrayal and Revenge	Macbeth’s loyalties are conflicted between his comradeship for Duncan and Banquo and his loyalty to his wife. He makes the fatal decision to trust the witches’ prophecies and so chooses to betray Duncan.	



ENGLISH LITERATURE - YEAR 10 - M2			RAG
Macbeth			
17.	Appearance versus Reality and Disruption of the Natural Order	From the very first scene ('Fair is foul...') things are not what they seem. The natural order of the world cannot be trusted. People are <u>deceitful</u> (the Macbeths pretend to be welcoming and then angry at Duncan's murder); the supernatural interferes with the natural world; people experience visions (daggers, blood and ghosts); Macbeth disrupts the natural succession of royalty; Lady M breaks gender norms.	
Character Summaries			
18.	Macbeth	Macbeth represents bravery, ambition, betrayal and guilt. The witches' prophecies transform him from a loyal warrior to a morally weakened and psychotic <u>tyrant</u> .	
19.	Lady Macbeth	Lady Macbeth represents ambition, cunning, manipulation and guilt. She is a rebel, challenging the submissive role of women and the divine right of kings.	
20.	King Duncan	King Duncan symbolises nobility, dignity and trust. A compliment to royalty, he is respected and trusting - but then betrayed.	
21.	Banquo	Banquo symbolises nobility, loyalty and trust. Through his loyalty and rejection of the prophecies, he is a <u>foil</u> to the character of Macbeth (a contrast).	
22.	The Witches	The witches represent the supernatural, evil and equivocation. The witches' prophecies never give the full answer and therefore tempt Macbeth towards his tragic end.	
23.	The Macduffs	The Macduffs symbolise family, loyalty and vengeance. The Macduffs serve as a contrast to the Macbeths: they are loyal; they are a loving family; Macduff is the noble warrior when he kills Macbeth.	
Key Quotes			
24.	Lady Macbeth	'Come, you spirits...Unsex me here' (1.5)	
25.	Macbeth	'This supernatural soliciting cannot be ill, cannot be good' (1.3)	
26.	Macbeth	'I am in blood stepp'd in so far' (3.4)	
27.	Macbeth	'It is the bloody business which informs thus to mine eyes' (2.1)	
28.	Macbeth	'Blood will have blood' (3.4)	
29.	Lady Macbeth	'Look like the innocent flower, but be the serpent under it' (1.5)	
30.	Malcolm	'To show an unfelt sorrow is an office which the false man does easy' (2.2)	
31.	The Witches	'Double, double toil and trouble; Fire burn and cauldron bubble' (4.1)	
32.	Macbeth	'I have supp'd full with horrors; direness, familiar to my slaughterous thoughts, cannot once start me' (5.5)	
33.	Macbeth	'Stars, hide your fires! Let not light see my black and deep desires' (1.4)	
34.	Duncan	'There's no art to find the mind's construction in the face' (1.4)	



SEPARATE SCIENCE - YEAR 10 - M2			RAG
Molecules and Matter, Non-Communicable Disease, Energy Changes, Radioactivity, Photosynthesis			
1.	Boiling Point	Temperature at which a pure substance boils or condenses.	
2.	Boyle's Law	For a fixed mass of gas at constant temperature, its pressure multiplied by its volume is constant.	
3.	Density	Mass per unit volume of a substance.	
4.	Freezing Point	The temperature at which a pure substance freezes.	
5.	Internal Energy	The energy of the particles of a substance due to their individual motion and positions.	
6.	Latent Heat	The energy transferred to or from a substance when it changes its state.	
7.	Melting Point	Temperature at which a pure substance melts or freezes (solidifies).	
8.	Physical Change	A change in which no new substances are produced.	
9.	Pressure	Force per unit cross-sectional area for a force acting on a surface at right angles to the surface. The unit of pressure is the pascal (Pa) or newton per square metre (N/m ²).	
10.	Specific Latent Heat of Fusion L_f	Energy needed to melt 1 kg of a substance with no change of temperature.	
11.	Specific Latent Heat of Vaporisation L_v	Energy needed to boil away 1 kg of a substance with no change of temperature.	
12.	Benign Tumours	Growths of abnormal cells that are contained in one area, usually within a membrane, and do not invade other tissues.	
13.	Cancer	The common name for a malignant tumour, formed as a result of changes in cells that lead to uncontrolled growth and division.	
14.	Carcinogens	Agents that cause cancer or significantly increase the risk of developing cancer.	
15.	Causal Mechanism	Something that explains how one factor influences another.	
16.	Correlation	An apparent link or relationship between two factors.	
17.	Ionising Radiation	Has enough energy to cause ionisation in the materials it passes through, which in turn can make them biologically active and may result in mutation and cancer.	
18.	Malignant Tumours	Invade neighbouring tissues and spread to different parts of the body in the blood where they form secondary tumours. They are also known as cancers.	



SEPARATE SCIENCE - YEAR 10 - M2			RAG
Molecules and Matter, Non-Communicable Disease, Energy Changes, Radioactivity, Photosynthesis			
19.	Tumour	A mass of abnormally growing cells that forms when the cells do not respond to the normal mechanisms that control growth and when control of the cell cycle is lost.	
20.	Activation Energy	The minimum energy needed for a reaction to take place.	
21.	Bond Energy	The energy required to break a specific chemical bond.	
22.	Endothermic (Chemistry)	A reaction that takes in energy from the surroundings.	
23.	Exothermic	A reaction that transfers energy to the surroundings.	
24.	Fuel Cells	Sources of electricity that are supplied by an external source of fuel.	
25.	Activity	The number of unstable atoms that decay per second in a radioactive source.	
26.	Alpha Radiation (α)	Alpha particles, each composed of two protons and two neutrons, emitted by unstable nuclei.	
27.	Atomic Number	The number of protons (which equals the number of electrons) in an atom. It is sometimes called the proton number.	
28.	Beta Radiation (β)	Beta particles that are high energy electrons created in, and emitted from, unstable nuclei.	
29.	Chain Reaction	Reactions in which one reaction causes further reactions, which in turn cause further reactions, etc.	
30.	Count Rate	The number of counts per second detected by a Geiger counter.	
31.	Gamma Radiation (γ)	Electromagnetic radiation emitted from unstable nuclei in radioactive substances.	
32.	Half-Life	Average time taken for the number of nuclei of the isotope (or mass of the isotope) in a sample to halve.	
33.	Ionisation	Any process in which atoms become charged.	
34.	Irradiated	An object that has been exposed to ionising radiation.	
35.	Isotopes	Atoms with the same number of protons and different numbers of neutrons.	
36.	Mass Number	The number of protons and neutrons in a nucleus.	
37.	Moderator	Substance in a nuclear reactor that slows down fission neutrons.	



SEPARATE SCIENCE - YEAR 10 - M2			RAG
Molecules and Matter, Non-Communicable Disease, Energy Changes, Radioactivity, Photosynthesis			
38.	Nuclear Fission	The process in which certain nuclei (uranium-235 and plutonium-239) split into two fragments, releasing energy and two or three neutrons as a result.	
39.	Nuclear Fission Reactor	Reactors that release energy steadily due to the fission of a suitable isotope, such as uranium-235.	
40.	Nuclear Fusion	The process in which small nuclei are forced together to fuse and form a larger nucleus.	
41.	Radioactive Contamination	The unwanted presence of materials containing radioactive atoms on other materials.	
42.	Reactor Core	The thick steel vessel used to contain fuel rods, control rods and the moderator in a nuclear fission reactor.	
43.	Endothermic Reaction (Biology)	A reaction that requires a transfer of energy from the environment.	
44.	Glucose	A simple sugar.	
45.	Limiting Factors	Limit the rate of a reaction, for example photosynthesis .	
46.	Photosynthesis	The process by which plants make food using carbon dioxide, water and light.	



COMBINED SCIENCE - YEAR 10 - M2 Electricity, Molecules and Matter, Bioenergetics and Energy Changes			RAG
1.	Alternating Current (a.c.)	Electric current in a circuit that repeatedly reverses its direction.	
2.	Direct Current (d.c.)	Electric current in a circuit that is in one direction only.	
3.	Earth Wire	The wire in a mains cable used to connect the metal case of an appliance to earth.	
4.	Fuse	A fuse contains a thin wire that melts and cuts the current off if too much current passes through it.	
5.	Live Wire	The mains wire that has a voltage that alternates (between +325 V and -325 V in Europe).	
6.	Neutral Wire	The wire of a mains circuit that is earthed at the local substation so its potential is close to zero.	
7.	Oscilloscope	A device used to display the shape of an electrical wave.	
8.	Plugs	A plug has an insulated case and is used to connect the cable from an appliance to a socket.	
9.	Step-Down Transformer	Electrical device used to step-down the size of an alternating potential difference.	
10.	Step-Up Transformer	Electrical device used to step-up the size of an alternating potential difference.	
11.	Three-Pin Plug	A three-pin plug has a live pin, a neutral pin and an earth pin.	
12.	Boiling Point	Temperature at which a pure substance boils or condenses.	
13.	Density	Mass per unit volume of a substance.	
14.	Freezing Point	The temperature at which a pure substance freezes.	
15.	Internal Energy	The energy of the particles of a substance due to their individual motion and positions.	
16.	Latent Heat	The energy transferred to or from a substance when it changes its state.	
17.	Melting Point	Temperature at which a pure substance melts or freezes (solidifies).	
18.	Physical Change	A change in which no new substances are produced.	
19.	Pressure	Force per unit cross-sectional area for a force acting on a surface at right angles to the surface. The unit of pressure is the Pascal (Pa) or newton per square metre (N/m ²).	
20.	Specific Latent Heat of Fusion L_f	Energy needed to melt 1 kg of a substance with no change of temperature.	
21.	Specific Latent Heat of Vaporisation L_v	Energy needed to boil away 1 kg of a substance with no change of temperature.	
22.	Endothermic Reaction (Biology)	A reaction that requires a transfer of energy from the environment.	
23.	Glucose	A simple sugar.	
24.	Limiting Factors	Limit the rate of a reaction, for example photosynthesis.	

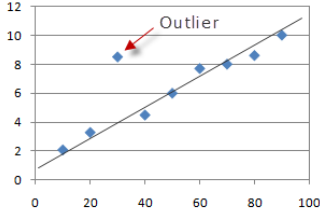


COMBINED SCIENCE - YEAR 10 - M2 Electricity, Molecules and Matter, Bioenergetics and Energy Changes			RAG
25.	Photosynthesis	The process by which plants make food using carbon dioxide, water and light.	
26.	Aerobic Respiration	An exothermic reaction in which glucose is broken down using oxygen to produce carbon dioxide and water and release energy to the cells.	
27.	Anaerobic Respiration	An exothermic reaction in which glucose is broken down in the absence of oxygen to produce lactic acid in animals and ethanol and carbon dioxide in plants and yeast. A small amount of energy is transferred to the cells.	
28.	Exothermic Reaction (Biology)	A reaction that transfers energy to the environment.	
29.	Glycogen	Carbohydrate store in animals.	
30.	Lactic Acid	The end product of anaerobic respiration in animal cells.	
31.	Oxygen Debt	The extra oxygen that must be taken into the body after exercise has stopped to complete the aerobic respiration of lactic acid.	
32.	Activation Energy	The minimum energy needed for a reaction to take place.	
33.	Bond Energy	The energy required to break a specific chemical bond.	
34.	Endothermic Reaction (Chemistry)	A reaction that takes in energy from the surroundings.	
35.	Exothermic Reaction (Chemistry)	A reaction that transfers energy to the surroundings.	
36.	Reaction Profile	The relative difference in the energy of reactants and products.	

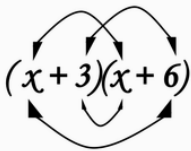


MATHS - YEAR 10 - M2 Higher Tier				RAG																				
1.	Mean	Add up the values and divide by how many values there are.	The mean of 3, 4, 7, 6, 0, 4, 6 is $\frac{3 + 4 + 7 + 6 + 0 + 4 + 6}{7} = 5$																					
2.	Mean from a Table	1. Find the midpoints (if necessary) 2. Multiply Frequency by values or midpoints 3. Add up these values 4. Divide this total by the Total Frequency If grouped data is used, the answer will be an estimate.	<table border="1"> <thead> <tr> <th>Height in cm</th> <th>Frequency</th> <th>Midpoint</th> <th>F × M</th> </tr> </thead> <tbody> <tr> <td>$0 < h \leq 10$</td> <td>8</td> <td>5</td> <td>$8 \times 5 = 40$</td> </tr> <tr> <td>$10 < h \leq 30$</td> <td>10</td> <td>20</td> <td>$10 \times 20 = 200$</td> </tr> <tr> <td>$30 < h \leq 40$</td> <td>6</td> <td>35</td> <td>$6 \times 35 = 210$</td> </tr> <tr> <td>Total</td> <td>24</td> <td>Ignore!</td> <td>450</td> </tr> </tbody> </table> <p>Estimated Mean height: $450 \div 24 = 18.75\text{cm}$</p>	Height in cm	Frequency	Midpoint	F × M	$0 < h \leq 10$	8	5	$8 \times 5 = 40$	$10 < h \leq 30$	10	20	$10 \times 20 = 200$	$30 < h \leq 40$	6	35	$6 \times 35 = 210$	Total	24	Ignore!	450	
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3.	Median Value	The middle value. Put the data in order and find the middle one. If there are two middle values, find the number half way between them by adding them together and dividing by 2.	Find the median of: 4, 5, 2, 3, 6, 7, 6 Ordered: 2, 3, 4, 5, 6, 6, 7 Median = 5																					
4.	Median from a Table	Use the formula $\frac{(n+1)}{2}$ to find the position of the median. <i>n</i> is the total frequency.	If the total frequency is 15, the median will be the $\left(\frac{15+1}{2}\right) = 8\text{th}$ position																					
5.	Mode /Modal Value	Most frequent/common. Can have more than one mode (called bi-modal or multi-modal) or no mode (if all values appear once).	Find the mode: 4, 5, 2, 3, 6, 4, 7, 8, 4 Mode = 4																					



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6.	Range	<p>Highest value subtract the smallest value</p> <p>Range is a 'measure of spread'. The smaller the range the more consistent the data.</p>	<p>Find the range: 3, 31, 26, 102, 37, 97.</p> <p>Range = $102 - 3 = 99$</p>
7.	Outlier	<p>A value that 'lies outside' most of the other values in a set of data.</p> <p>An outlier is much smaller or much larger than the other values in a set of data.</p>	
8.	Lower Quartile	<p>Divides the bottom half of the data into two halves.</p> <p>$LQ = Q_1 = \frac{(n+1)}{4} \text{th value}$</p>	<p>Find the lower quartile of: 2, 3, 4, 5, 6, 6, 7</p> <p>$Q_1 = \frac{(7+1)}{4} = 2\text{nd value} \rightarrow 3$</p>
9.	Upper Quartile	<p>Divides the top half of the data into two halves.</p> <p>$UQ = Q_3 = \frac{3(n+1)}{4} \text{th value}$</p>	<p>Find the upper quartile of: 2, 3, 4, 5, 6, 6, 7</p> <p>$Q_3 = \frac{3(7+1)}{4} = 6\text{th value} \rightarrow 6$</p>
10.	Interquartile Range	<p>The difference between the upper quartile and lower quartile.</p> <p>$IQR = Q_3 - Q_1$</p> <p>The smaller the interquartile range, the more consistent the data.</p>	<p>Find the IQR of: 2, 3, 4, 5, 6, 6, 7</p> <p>$IQR = Q_3 - Q_1 = 6 - 3 = 3$</p>
11.	Quadratic	<p>A quadratic expression is of the form</p> <p>$ax^2 + bx + c$</p> <p>where a, b and c are numbers, $a \neq 0$.</p>	<p>Examples of quadratic expressions:</p> <p>x^2 $8x^2 - 3x + 7$</p> <p>Examples of non-quadratic expressions:</p> <p>$2x^3 - 5x^2$ $9x - 1$</p>



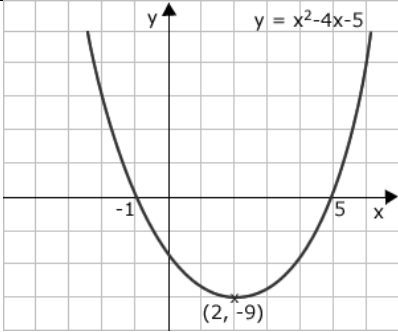
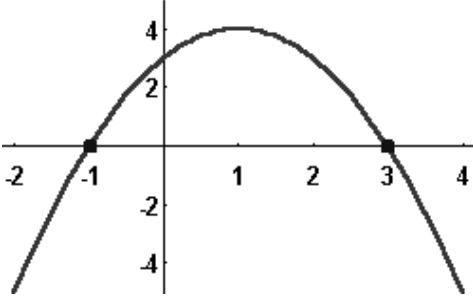
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12.	Factorising Quadratics	When a quadratic expression is in the form $x^2 + bx + c$ find the two numbers that add to give b and multiply to give c.	$x^2 + 7x + 10 = (x + 5)(x + 2)$ (because 5 and 2 add to give 7 and multiply to give 10) $x^2 + 2x - 8 = (x + 4)(x - 2)$ (because +4 and -2 add to give +2 and multiply to give -8)	
13.	Difference of 2 Squares	An expression of the form $a^2 - b^2$ can be factorised to give $(a + b)(a - b)$.	$x^2 - 25 = (x + 5)(x - 5)$ $16x^2 - 81 = (4x + 9)(4x - 9)$	
14.	Expanding Double Brackets	When you expand double brackets use the FOIL method to make sure you don't forget any of the terms!	<p>First</p> <p>Outer</p> <p>Innner</p> <p>Last</p>  $x^2 + 6x + 3x + 18$ $= x^2 + 9x + 18$	
15.	Solving Quadratics ($ax^2 = b$)	Isolate the x^2 term and square root both sides. Remember there will be a positive and a negative solution.	$2x^2 = 98$ $x^2 = 49$ $x = \pm 7$	
16.	Solving Quadratics ($ax^2 + bx = 0$)	Factorise and then solve = 0.	$x^2 - 3x = 0$ $x(x - 3) = 0$ $x = 0$ or $x = 3$	
17.	Solving Quadratics by Factorising ($a = 1$)	Factorise the quadratic in the usual way. Solve = 0 Make sure the equation = 0 before factorising.	Solve $x^2 + 3x - 10 = 0$ Factorise: $(x + 5)(x - 2) = 0$ $x = -5$ or $x = 2$	



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18.	<p>Factorising Quadratics when $a \neq 1$</p>	<p>When a quadratic is in the form $ax^2 + bx + c$ 1. Multiply a by c = ac 2. Find two numbers that add to give b and multiply to give ac. 3. Re-write the quadratic, replacing bx with the two numbers you found. 4. Factorise in pairs - you should get the same bracket twice 5. Write your two brackets - one will be the repeated bracket, the other will be made of the factors outside each of the two brackets.</p>	<p>Factorise $6x^2 + 5x - 4$</p> <ol style="list-style-type: none"> $6 \times -4 = -24$ Two numbers that add to give +5 and multiply to give -24 are +8 and -3 $6x^2 + 8x - 3x - 4$ Factorise in pairs: $2x(3x + 4) - 1(3x + 4)$ Answer = $(3x + 4)(2x - 1)$ 	
19.	<p>Solving Quadratics by Factorising ($a \neq 1$)</p>	<p>Factorise the quadratic in the usual way. Solve = 0 Make sure the equation = 0 before factorising.</p>	<p>Solve $2x^2 + 7x - 4 = 0$</p> <p>Factorise: $(2x - 1)(x + 4) = 0$ $x = \frac{1}{2}$ or $x = -4$</p>	
20.	<p>Quadratic Graph</p>	<p>A 'U-shaped' curve called a parabola. The equation is of the form $y = ax^2 + bx + c$, where a, b and c are numbers, $a \neq 0$. If $a < 0$, the parabola is upside down.</p>		
21.	<p>Roots of a Quadratic</p>	<p>A root is a solution. The roots of a quadratic are the x-intercepts of the quadratic graph.</p>		



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22.	Turning Point of a Quadratic	<p>A turning point is the point where a quadratic turns.</p> <p>On a positive parabola, the turning point is called a minimum.</p> <p>On a negative parabola, the turning point is called a maximum.</p>		
23.	Completing the Square (when $a = 1$)	<p>A quadratic in the form $x^2 + bx + c$ can be written in the form $(x + p)^2 + q$.</p> <ol style="list-style-type: none"> 1. Write a set of brackets with x in and half the value of b. 2. Square the bracket. 3. Subtract $\left(\frac{b}{2}\right)^2$ and add c. 4. Simplify the expression. <p>You can use the completing the square form to help find the maximum or minimum of quadratic graph.</p>	<p>Complete the square of $y = x^2 - 6x + 2$</p> <p>Answer: $(x - 3)^2 - 3^2 + 2$ $= (x - 3)^2 - 7$</p> <p>The minimum value of this expression occurs when $(x - 3)^2 = 0$, which occurs when $x = 3$ When $x = 3$, $y = 0 - 7 = -7$</p> <p>Minimum point = $(3, -7)$</p>	
24.	Completing the Square (when $a \neq 1$)	<p>A quadratic in the form $ax^2 + bx + c$ can be written in the form $p(x + q)^2 + r$.</p> <p>Use the same method as above, but factorise out a at the start.</p>	<p>Complete the square of $4x^2 + 8x - 3$</p> <p>Answer: $4[x^2 + 2x] - 3$ $= 4[(x + 1)^2 - 1^2] - 3$ $= 4(x + 1)^2 - 4 - 3$ $= 4(x + 1)^2 - 7$</p>	
25.	Solving Quadratics by Completing the Square	<p>Complete the square in the usual way and use inverse operations to solve.</p>	<p>Solve $x^2 + 8x + 1 = 0$</p> <p>Answer: $(x + 4)^2 - 4^2 + 1 = 0$ $(x + 4)^2 - 15 = 0$ $(x + 4)^2 = 15$ $(x + 4) = \pm\sqrt{15}$ $x = -4 \pm \sqrt{15}$</p>	




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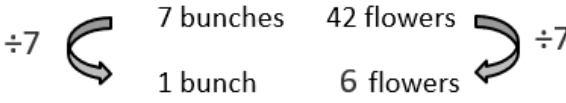
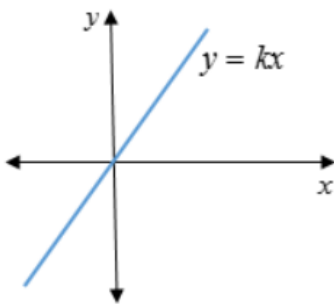
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26.	Solving Quadratics using the Quadratic Formula	<p>A quadratic in the form $ax^2 + bx + c = 0$ can be solved using the formula:</p> $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ <p>Use the formula if the quadratic does not factorise easily.</p>	<p>Solve $3x^2 + x - 5 = 0$</p> <p>Answer: $a = 3, b = 1, c = -5$</p> $x = \frac{-1 \pm \sqrt{1^2 - 4 \times 3 \times -5}}{2 \times 3}$ $x = \frac{-1 \pm \sqrt{61}}{6}$ <p>$x = 1.14$ or -1.47 (2 d.p.)</p>	
27.	Ratio	<p>Ratio compares the size of one part to another part.</p> <p>Written using the ':' symbol.</p>	<p style="text-align: center;">3 : 1</p> 	
28.	Proportion	<p>Proportion compares the size of one part to the size of the whole.</p> <p>Usually written as a fraction.</p>	<p>In a class with 13 boys and 9 girls, the proportion of boys is $\frac{13}{22}$ and the proportion of girls is $\frac{9}{22}$</p>	
29.	Simplifying Ratios	Divide all parts of the ratio by a common factor .	$5 : 10 = 1 : 2$ (divide both by 5) $14 : 21 = 2 : 3$ (divide both by 7)	
30.	Ratios in the form 1 : n or n : 1	Divide both parts of the ratio by one of the numbers to make one part equal 1 .	$5 : 7 = 1 : \frac{7}{5}$ in the form 1 : n $5 : 7 = \frac{5}{7} : 1$ in the form n : 1	
31.	Sharing in a Ratio	<ol style="list-style-type: none"> Add the total parts of the ratio. Divide the amount to be shared by this value to find the value of one part. Multiply this value by each part of the ratio. <p>Use only if you know the total.</p>	<p>Share £60 in the ratio 3 : 2 : 1.</p> $3 + 2 + 1 = 6$ $60 \div 6 = 10$ $3 \times 10 = 30, 2 \times 10 = 20, 1 \times 10 = 10$ £30 : £20 : £10	

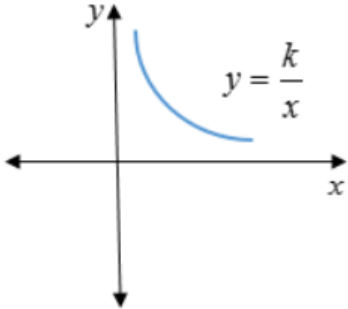


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32.	Proportional Reasoning	<p>Comparing two things using multiplicative reasoning and applying this to a new situation.</p> <p>Identify one multiplicative link and use this to find missing quantities.</p>	<p>7 bunches of flowers contain 42 flowers. How many flowers are in 1 bunch?</p> <p>$\div 7$ </p>
33.	Unitary Method	<p>Finding the value of a single unit and then finding the necessary value by multiplying the single unit value.</p>	<p>3 cakes require 450g of sugar to make. Find how much sugar is needed to make 5 cakes.</p> <p>3 cakes = 450g So 1 cake = 150g (\div by 3) So 5 cakes = 750 g (\times by 5)</p>
34.	Ratio Already Shared	<p>Find what one part of the ratio is worth using the unitary method.</p>	<p>Money was shared in the ratio 3:2:5 between Ann, Bob and Cat. Given that Bob had £16, found out the total amount of money shared.</p> <p>£16 = 2 parts So £8 = 1 part 3 + 2 + 5 = 10 parts, so 8 x 10 = £80</p>
35.	Best Buys	<p>Find the unit cost by dividing the price by the quantity. The lowest number is the best value.</p>	<p>8 cakes for £1.28 \rightarrow 16p each (\div by 8) 13 cakes for £2.05 \rightarrow 15.8p each (\div by 13) Pack of 13 cakes is best value.</p>
36.	Direct Proportion	<p>If two quantities are in direct proportion, as one increases, the other increases by the same percentage.</p> <p>If y is directly proportional to x, this can be written as $y \propto x$</p> <p>An equation of the form $y = kx$ represents direct proportion, where k is the constant of proportionality.</p>	



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<p>37.</p>	<p>Inverse Proportion</p>	<p>If two quantities are inversely proportional, the product of the two quantities always remains constant, this means if one quantity doubles then the other quantity will halve.</p> <p>If y is inversely proportional to x, this can be written as $y \propto \frac{1}{x}$</p> <p>An equation of the form $y = \frac{k}{x}$ represents inverse proportion.</p>		
<p>38.</p>	<p>Using Proportionality Formulae</p>	<p>Direct: $y = kx$ or $y \propto x$</p> <p>Inverse: $y = \frac{k}{x}$ or $y \propto \frac{1}{x}$</p> <p>1. Solve to find k using the pair of values in the question.</p> <p>2. Rewrite the equation using the k you have just found.</p> <p>3. Substitute the other given value from the question in to the equation to find the missing value.</p>	<p>p is directly proportional to q.</p> <p>When $p = 12$, $q = 4$.</p> <p>Find p when $q = 20$.</p> <p>1. $p = kq$ $12 = k \times 4$ so $k = 3$</p> <p>2. $p = 3q$</p> <p>3. $p = 3 \times 20 = 60$, so $p = 60$</p>	

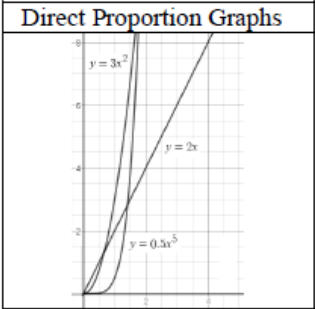
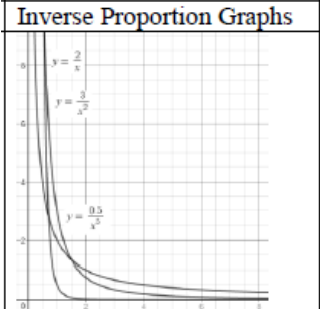


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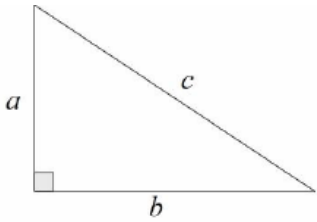
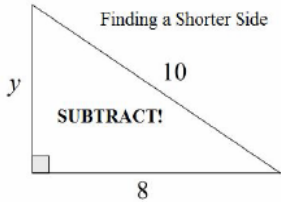
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39.	Direct Proportion with Powers	Graphs showing direct proportion can be written in the form $y = kx^n$ Direct proportion graphs will always start at the origin.	 <p>A graph titled 'Direct Proportion Graphs' showing three curves starting from the origin (0,0). The curves are labeled $y = 3x^2$, $y = 2x$, and $y = 0.5x^5$. The $y = 2x$ curve is a straight line passing through the origin. The other two are curves that increase as x increases.</p>
40.	Inverse Proportion with Powers	Graphs showing inverse proportion can be written in the form $y = \frac{k}{x^n}$ Inverse proportion graphs will never start at the origin.	 <p>A graph titled 'Inverse Proportion Graphs' showing three curves that approach the x-axis as x increases. The curves are labeled $y = \frac{2}{x}$, $y = \frac{3}{x^2}$, and $y = \frac{0.5}{x^5}$. All curves are in the first quadrant and do not touch the x-axis.</p>
41.	Percentage Change	$\frac{\text{Difference}}{\text{Original}} \times 100\%$	A games console is bought for £200 and sold for £250. $\% \text{ change} = \frac{50}{200} \times 100 = 25\%$
42.	Fractions to Decimals	Divide the numerator by the denominator using the bus stop method.	$\frac{3}{8} = 3 \div 8 = 0.375$
43.	Decimals to Fractions	Write as a fraction over 10, 100 or 1000 and simplify.	$0.36 = \frac{36}{100} = \frac{9}{25}$
44.	Percentages to Decimals	Divide by 100	$8\% = 8 \div 100 = 0.08$
45.	Decimals to Percentages	Multiply by 100	$0.4 = 0.4 \times 100\% = 40\%$
46.	Fractions to Percentages	Percentage is just a fraction out of 100. Make the denominator 100 using equivalent fractions. When the denominator doesn't go in to 100, use a calculator and multiply the fraction by 100.	$\frac{3}{25} = \frac{12}{100} = 12\%$ $\frac{9}{17} \times 100 = 52.9\%$



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47.	Percentages to Fractions	Percentage is just a fraction out of 100. Write the percentage over 100 and simplify.	$14\% = \frac{14}{100} = \frac{7}{50}$	
48.	Increase or Decrease by a Percentage	Non-calculator: Find the percentage and add or subtract it from the original amount. Calculator: Find the percentage multiplier and multiply.	<u>Increase 500 by 20% (Non Calc):</u> 10% of 500 = 50 so 20% of 500 = 100 500 + 100 = 600 <u>Decrease 800 by 17% (Calc):</u> 100%-17%=83% 83% ÷ 100 = 0.83 0.83 × 800 = 664	
49.	Percentage Multiplier	The number you multiply a quantity by to increase or decrease it by a percentage .	The multiplier for increasing by 12% is 1.12 The multiplier for decreasing by 12% is 0.88 The multiplier for increasing by 100% is 2.	
50.	Reverse Percentage	Find the correct percentage given in the question , then work backwards to find 100% . Look out for words like 'before' or 'original'	A jumper was priced at £48.60 after a 10% reduction. Find its original price. 100% - 10% = 90% 90% = £48.60 1% = £0.54 100% = £54	
51.	Simple Interest	Interest calculated as a percentage of the original amount.	£1000 invested for 3 years at 10% simple interest. 10% of £1000 = £100 Interest = 3 × £100 = £300	
52.	Exponential Growth	When we multiply a number repeatedly by the same number ($\neq 1$), resulting in the number increasing by the same proportion each time. The original amount can grow very quickly in exponential growth.	1, 2, 4, 8, 16, 32, 64, 128 ... is an example of exponential growth, because the numbers are being multiplied by 2 each time.	

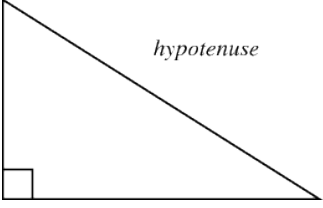
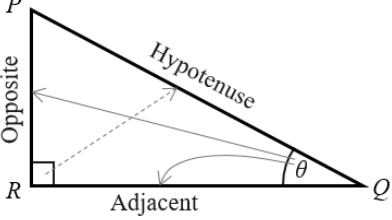
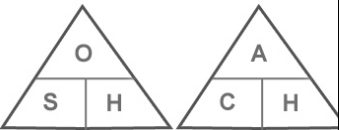
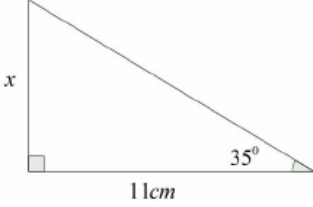
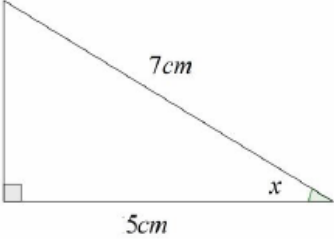


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53.	Exponential Decay	<p>When we multiply a number repeatedly by the same number ($0 < x < 1$), resulting in the number decreasing by the same proportion each time.</p> <p>The original amount can decrease very quickly in exponential decay.</p>	1000, 200, 40, 8 ... is an example of exponential decay, because the numbers are being multiplied by $\frac{1}{5}$ each time.	
54.	Compound Interest	Interest paid on the original amount and the accumulated interest.	<p>A bank pays 5% compound interest a year. Bob invests £3000. How much will he have after 7 years.</p> $3000 \times 1.05^7 = \text{£}4221.30$	
55.	Pythagoras' Theorem	<p>For any right angled triangle:</p> $a^2 + b^2 = c^2$  <p>Used to find missing lengths. a and b are the shorter sides, c is the hypotenuse (longest side).</p>	<p>Finding a Shorter Side</p>  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> $a = y, b = 8, c = 10$ $a^2 = c^2 - b^2$ $y^2 = 100 - 64$ $y^2 = 36$ $y = 6$ </div>	
56.	3D Pythagoras' Theorem	<p>Find missing lengths by identifying right angled triangles.</p> <p>You will often have to find a missing length you are not asked for before finding the missing length you are asked for.</p>	<p>Can a pencil that is 20cm long fit in a pencil tin with dimensions 12cm, 13cm and 9cm? The pencil tin is in the shape of a cuboid.</p> <p>Hypotenuse of the base = $\sqrt{12^2 + 13^2} = 17.7$</p> <p>Diagonal of cuboid = $\sqrt{17.7^2 + 9^2} = 19.8\text{cm}$</p> <p>No, the pencil cannot fit.</p>	
57.	Trigonometry	The study of triangles.		



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58.	Hypotenuse	<p>The longest side of a right-angled triangle.</p> <p>Is always opposite the right angle.</p>		
59.	Adjacent	<p>Next to</p>		
60.	Trigonometric Formulae	<p>Use SOHCAHTOA.</p> $\sin \theta = \frac{O}{H}$ $\cos \theta = \frac{A}{H}$ $\tan \theta = \frac{O}{A}$  <p>When finding a missing angle, use the 'inverse' trigonometric function by pressing the 'shift' button on the calculator.</p>	 <p>Use 'Opposite' and 'Adjacent', so use 'tan'</p> $\tan 35 = \frac{x}{11}$ $x = 11 \tan 35 = 7.70\text{cm}$  <p>Use 'Adjacent' and 'Hypotenuse', so use 'cos'</p> $\cos x = \frac{5}{7}$ $x = \cos^{-1}\left(\frac{5}{7}\right) = 44.4^\circ$	



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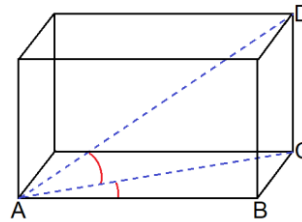
MATHS - YEAR 10 - M2
Higher Tier

RAG

61. 3D Trigonometry


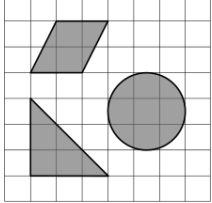

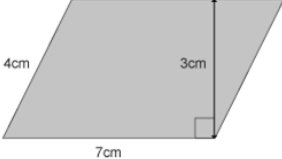
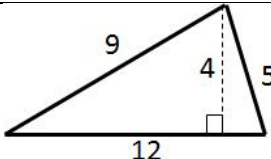
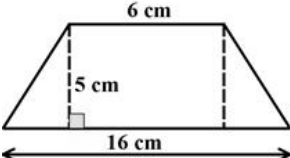
Find missing lengths by identifying right angled triangles.


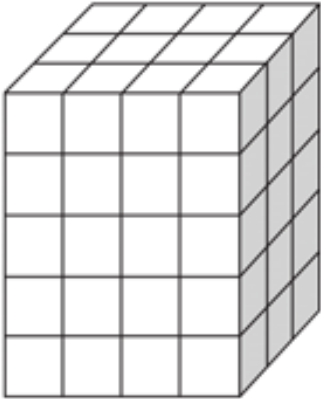
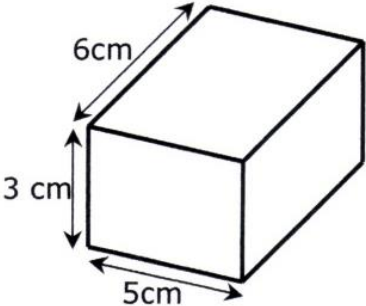
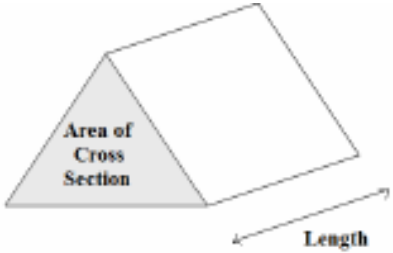
You will often have to find a missing length you are not asked for before finding the missing length you are asked for.



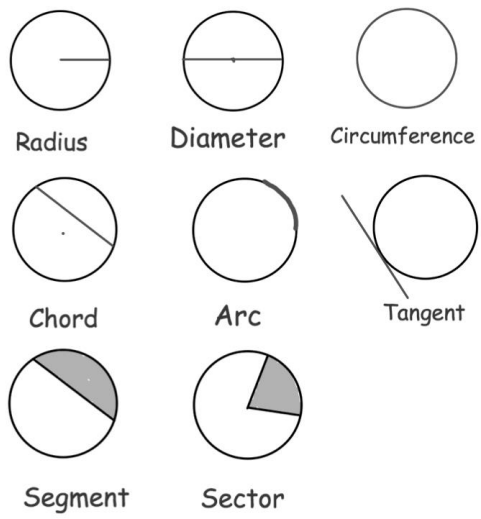

62. Exact Trig Values

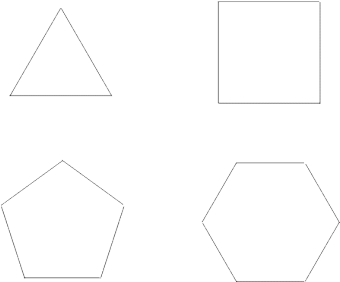
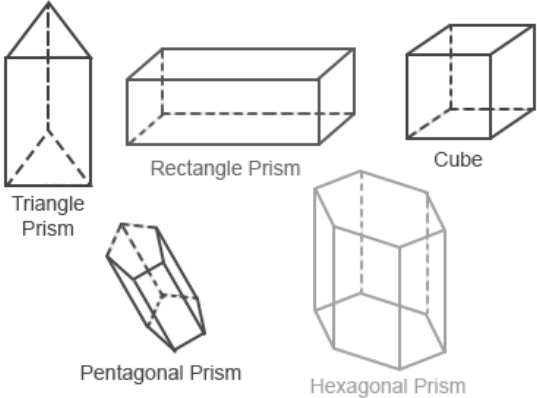
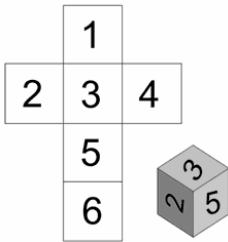
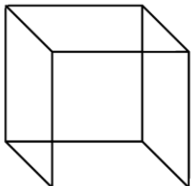
	0°	30°	45°	60°	90°
sin θ	$\frac{\sqrt{0}}{2}$	$\frac{\sqrt{1}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{4}}{2}$
cos θ	$\frac{\sqrt{4}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{1}}{2}$	$\frac{\sqrt{0}}{2}$
tan θ	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	$\pm\infty$

1.	Perimeter	<p>The total distance around the outside of a shape.</p> <p>Units include: <i>mm, cm, m</i> etc.</p>	<p>8 cm</p>  <p>5 cm</p> $P = 8 + 5 + 8 + 5 = 26cm$	
2.	Area	<p>The amount of space inside a shape.</p> <p>Units include: <i>mm², cm², m²</i></p>		
3.	Area of a Rectangle	Length x Width	 $A = 36cm^2$	
4.	Area of a Parallelogram	<p>Base x Perpendicular Height</p> <p>Not the slanted height.</p>	 $A = 7 \times 3 = 21cm^2$	
5.	Area of a Triangle	Base x Height ÷ 2	 $A = 12 \times 4 \div 2 = 24cm^2$	
6.	Area of a Trapezium	$\frac{(a + b)}{2} \times h$ <p>“Half the sum of the parallel side, times the height between them. That is how you calculate the area of a trapezium”</p>	 $(a = 6, b = 16, h = 5)$ $A = \frac{(6 + 16)}{2} \times 5 = 55cm^2$	

7.	Compound Shape	A shape made up of a combination of other shapes put together.		
8.	Surface Area	The total area of the surface of a three-dimensional object.	The surface area of a cube is the area of all 6 faces added together.	
9.	Volume	<p>Volume is a measure of the amount of space inside a solid shape.</p> <p>Units: mm^3, cm^3, m^3 etc.</p>		
10.	Volume of a Cube/Cuboid	$V = \text{Length} \times \text{Width} \times \text{Height}$ $V = L \times W \times H$ <p>You can also use the Volume of a Prism formula for a cube/cuboid.</p>	 <p>volume = $6 \times 5 \times 3$ = 90 cm^3</p>	
11.	Volume of a Prism	$V = \text{Area of Cross Section} \times \text{Length}$ $V = A \times L$		

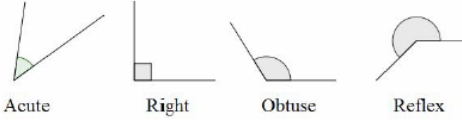
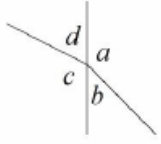
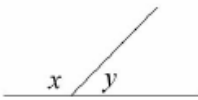
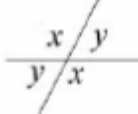
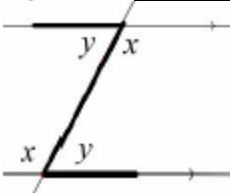
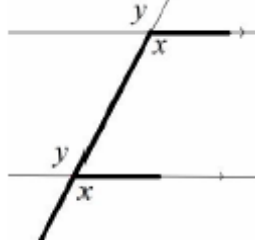
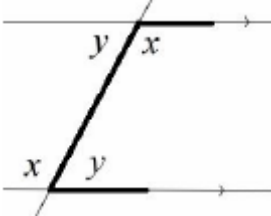
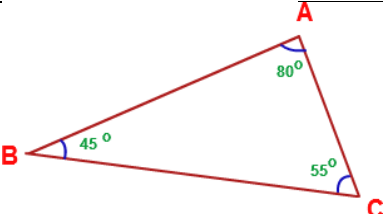


12.	Parts of a Circle	<p>Radius - the distance from the centre of a circle to the edge</p> <p>Diameter - the total distance across the width of a circle through the centre.</p> <p>Circumference - the total distance around the outside of a circle</p> <p>Chord - a straight line whose end points lie on a circle</p> <p>Tangent - a straight line which touches a circle at exactly one point</p> <p>Arc - a part of the circumference of a circle</p> <p>Sector - the region of a circle enclosed by two radii and their intercepted arc</p> <p>Segment - the region bounded by a chord and the arc created by the chord</p>	<p>Parts of a Circle</p> 	
13.	Area of a Circle	$A = \pi r^2$ which means 'pi x radius squared'.	<p>If the radius was 5cm, then:</p> $A = \pi \times 5^2 = 78.5cm^2$	
14.	Circumference of a Circle	$C = \pi d$ which means 'pi x diameter'	<p>If the radius was 5cm, then:</p> $C = \pi \times 10 = 31.4cm$	
15.	π ('pi')	<p>Pi is the circumference of a circle divided by the diameter.</p> $\pi \approx 3.14$		

16.	Polygon	A 2D shape with only straight edges.	Rectangle, Hexagon, Decagon, Kite etc.	
17.	Regular	A shape is regular if all the sides and all the angles are equal.	Some examples: 	
18.	Names of Polygons	3-sided = Triangle 4-sided = Quadrilateral 5-sided = Pentagon 6-sided = Hexagon 7-sided = Heptagon 8-sided = Octagon 9-sided = Nonagon 10-sided = Decagon		
19.	Prism	A prism is a 3D shape whose cross section is the same throughout.		
20.	Net	A pattern that you can cut and fold to make a model of a 3D shape.		
21.	Properties of Solids	Faces = flat surfaces Edges = sides/lengths Vertices = corners	A cube has 6 faces, 12 edges and 8 vertices. 	

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22.	Types of Angles	<p>Acute angles are less than 90°. Right angles are exactly 90°. Obtuse angles are greater than 90° but less than 180°. Reflex angles are greater than 180° but less than 360°.</p>	 <p>Acute Right Obtuse Reflex</p>	
23.	Angles at a Point	<p>Angles around a point add up to 360°.</p>	 <p>$a + b + c + d = 360^\circ$</p>	
24.	Angles on a Straight Line	<p>Angles around a point on a straight line add up to 180°.</p>	 <p>$x + y = 180^\circ$</p>	
25.	Opposite Angles	<p>Vertically opposite angles are equal.</p>		
26.	Alternate Angles	<p>Alternate angles are equal. They look like Z angles, but never say this in the exam.</p>		
27.	Corresponding Angles	<p>Corresponding angles are equal. They look like F angles, but never say this in the exam.</p>		
28.	Co-Interior Angles	<p>Co-Interior angles add up to 180°. They look like C angles, but never say this in the exam.</p>		
29.	Angles in a Triangle	<p>Angles in a triangle add up to 180°.</p>		

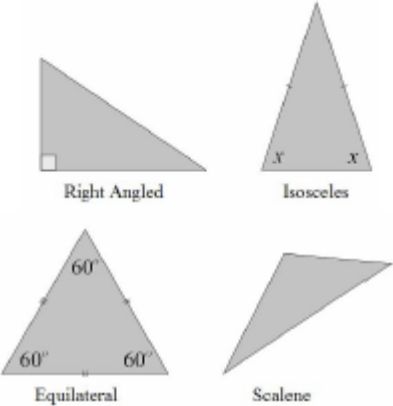
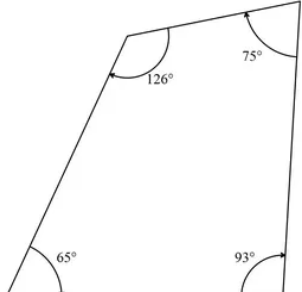
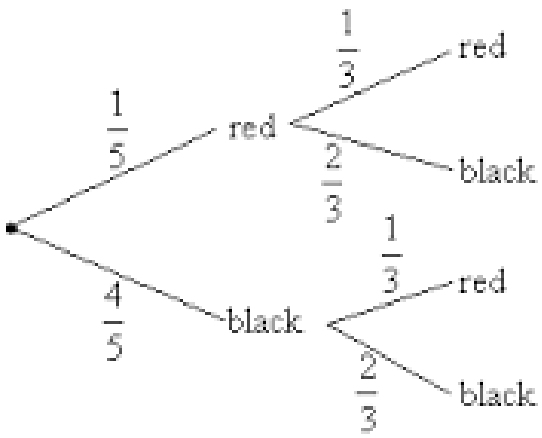


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<p>30. Types of Triangles</p>	<p>Right Angle Triangles have a 90° angle in. Isosceles Triangles have 2 equal sides and 2 equal base angles. Equilateral Triangles have 3 equal sides and 3 equal angles (60°). Scalene Triangles have different sides and different angles.</p> <p>Base angles in an isosceles triangle are equal.</p>		
<p>31. Angles in a Quadrilateral</p>	<p>Angles in a quadrilateral add up to 360°.</p>		
<p>32. Tree Diagrams</p>	<p>Tree diagrams show all the possible outcomes of an event and calculate their probabilities.</p> <p>All branches must add up to 1 when adding downwards.</p> <p>This is because the probability of something not happening is 1 minus the probability that it does happen.</p> <p>Multiply going across a tree diagram.</p> <p>Add going down a tree diagram.</p>		
<p>33. Independent Events</p>	<p>The outcome of a previous event does not influence/affect the outcome of a second event.</p>	<p>An example of independent events could be replacing a counter in a bag after picking it.</p>	

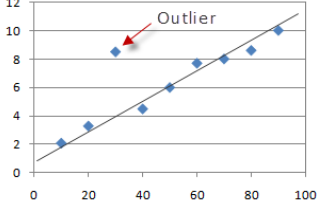
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34.	Dependent Events	The outcome of a previous event does influence/affect the outcome of a second event.	An example of dependent events could be not replacing a counter in a bag after picking it. 'Without replacement'																				
35.	Mean	Add up the values and divide by how many values there are.	The mean of 3, 4, 7, 6, 0, 4, 6 is $\frac{3 + 4 + 7 + 6 + 0 + 4 + 6}{7} = 5$																				
36.	Mean from a Table	1. Find the midpoints (if necessary) 2. Multiply Frequency by values or midpoints 3. Add up these values 4. Divide this total by the Total Frequency If grouped data is used, the answer will be an estimate.	<table border="1"> <thead> <tr> <th>Height in cm</th> <th>Frequency</th> <th>Midpoint</th> <th>F × M</th> </tr> </thead> <tbody> <tr> <td>$0 < h \leq 10$</td> <td>8</td> <td>5</td> <td>$8 \times 5 = 40$</td> </tr> <tr> <td>$10 < h \leq 30$</td> <td>10</td> <td>20</td> <td>$10 \times 20 = 200$</td> </tr> <tr> <td>$30 < h \leq 40$</td> <td>6</td> <td>35</td> <td>$6 \times 35 = 210$</td> </tr> <tr> <td>Total</td> <td>24</td> <td>Ignore!</td> <td>450</td> </tr> </tbody> </table> Estimated Mean height: $450 \div 24 = 18.75\text{cm}$	Height in cm	Frequency	Midpoint	F × M	$0 < h \leq 10$	8	5	$8 \times 5 = 40$	$10 < h \leq 30$	10	20	$10 \times 20 = 200$	$30 < h \leq 40$	6	35	$6 \times 35 = 210$	Total	24	Ignore!	450
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Total	24	Ignore!	450																				
37.	Median Value	The middle value. Put the data in order and find the middle one. If there are two middle values, find the number half way between them by adding them together and dividing by 2.	Find the median of: 4, 5, 2, 3, 6, 7, 6 Ordered: 2, 3, 4, 5, 6, 6, 7 Median = 5																				
38.	Mode /Modal Value	Most frequent/common. Can have more than one mode (called bi-modal or multi-modal) or no mode (if all values appear once).	Find the mode: 4, 5, 2, 3, 6, 4, 7, 8, 4 Mode = 4																				
39.	Range	Highest value subtract the smallest value. Range is a 'measure of spread'. The smaller the range the more consistent the data.	Find the range: 3, 31, 26, 102, 37, 97. Range = $102 - 3 = 99$																				



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40.	Outlier	A value that 'lies outside' most of the other values in a set of data. An outlier is much smaller or much larger than the other values in a set of data.		
41.	Square Number	The number you get when you multiply a number by itself.	<p>1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225...</p> $9^2 = 9 \times 9 = 81$	
42.	Square Root	The number you multiply by itself to get another number. The reverse process of squaring a number.	$\sqrt{36} = 6$ <p>because $6 \times 6 = 36$</p>	
43.	Solutions to $x^2 = \dots$	Equations involving squares have two solutions, one positive and one negative.	<p>Solve $x^2 = 25$</p> $x = 5 \text{ or } x = -5$ <p>This can also be written as $x = \pm 5$</p>	
44.	Cube Number	The number you get when you multiply a number by itself and itself again.	<p>1, 8, 27, 64, 125...</p> $2^3 = 2 \times 2 \times 2 = 8$	
45.	Cube Root	The number you multiply by itself and itself again to get another number. The reverse process of cubing a number.	$\sqrt[3]{125} = 5$ <p>because $5 \times 5 \times 5 = 125$</p>	
46.	Powers of...	The powers of a number are that number raised to various powers.	<p>The powers of 3 are:</p> $3^1 = 3$ $3^2 = 9$ $3^3 = 27$ $3^4 = 81 \text{ etc.}$	



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47.	Multiplication Index Law	When multiplying with the same base (number or letter), add the powers . $a^m \times a^n = a^{m+n}$	$7^5 \times 7^3 = 7^8$ $a^{12} \times a = a^{13}$ $4x^5 \times 2x^8 = 8x^{13}$
48.	Division Index Law	When dividing with the same base (number or letter), subtract the powers . $a^m \div a^n = a^{m-n}$	$15^7 \div 15^4 = 15^3$ $x^9 \div x^2 = x^7$ $20a^{11} \div 5a^3 = 4a^8$
49.	Brackets Index Laws	When raising a power to another power, multiply the powers together. $(a^m)^n = a^{mn}$	$(y^2)^5 = y^{10}$ $(6^3)^4 = 6^{12}$ $(5x^6)^3 = 125x^{18}$
50.	Expression	A mathematical statement written using symbols, numbers or letters.	$3x + 2$ or $5y^2$
51.	Equation	A statement showing that two expressions are equal.	$2y - 17 = 15$
52.	Identity	An equation that is true for all values of the variables. An identity uses the symbol: \equiv	$2x \equiv x + x$
53.	Formula	Shows the relationship between two or more variables	Area of a rectangle = length x width or $A = L \times W$
54.	Expand	To expand a bracket, multiply each term in the bracket by the expression outside the bracket.	$3(x + 7) = 3x + 21$
55.	Factorise	The reverse of expanding. Factorising is writing an expression as a product of terms by 'taking out' a common factor.	$6x - 15 = 3(2x - 5)$, where 3 is the common factor.



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56.	Solve	To find the answer/value of something Use inverse operations on both sides of the equation (balancing method) until you find the value for the letter.	Solve $2x - 3 = 7$ Add 3 on both sides $2x = 10$ Divide by 2 on both sides $x = 5$
57.	Inverse	Opposite	The inverse of addition is subtraction. The inverse of multiplication is division.
58.	Substitution	Replace letters with numbers. Be careful of $5x^2$. You need to square first, then multiply by 5.	$a = 3, b = 2$ and $c = 5$. Find: 1. $2a = 2 \times 3 = 6$ 2. $3a - 2b = 3 \times 3 - 2 \times 2 = 5$ 3. $7b^2 - 5 = 7 \times 2^2 - 5 = 23$
59.	Writing Formulae	Substitute letters for words in the question.	Bob charges £3 per window and a £5 call out charge. $C = 3N + 5$ Where N=number of windows and C=cost
60.	Expression	A mathematical statement written using symbols, numbers or letters.	$3x + 2$ or $5y^2$
61.	Equation	A statement showing that two expressions are equal.	$2y - 17 = 15$
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64.	Expand	To expand a bracket, multiply each term in the bracket by the expression outside the bracket.	$3(x + 7) = 3x + 21$	
65.	Factorise	The reverse of expanding. Factorising is writing an expression as a product of terms by 'taking out' a common factor.	$6x - 15 = 3(2x - 5)$, where 3 is the common factor.	



PE: SPORTS SCIENCE - YEAR 10 - M2 Applying Principles of Training			RAG
LO1: Know the principles of training in a sporting context			
1.	Progression	Progressive Overload - training needs to be hard enough to cause adaptation, gradually increasing your training workload. Progressive overload by increasing frequency, intensity, time, type, adherence (FITTA).	
2.	Specificity	Training should be specific to your sport. Practises a skill used in a sport, training the muscle group predominantly used in a sport.	
3.	Reversibility/ Regression	Effects of training are reversed if you stop training or are injured. 'Use it or lose it'.	
4.	Moderation	Individual Differences/Needs - programme should be designed to meet your training goals, needs, ability, level of fitness. Takes into account age, gender, environment and experience.	
5.	Variance	Vary training to avoid boredom, gives the body a different challenge, mixture of fitness and skill.	
LO2: Know how training methods target different fitness components			
6.	Aerobic Exercise	Low to moderate intensity exercises that use oxygen for a long duration. Glucose + oxygen = energy + carbon dioxide + water	
7.	Anaerobic Exercise	High intensity exercises that do not use oxygen for a short duration Glucose = energy + lactic acid	
8.	Aerobic Method of Training	Steady and not too fast, e.g. walking, jogging, cycling.	
9.	Anaerobic Method of Training	Performed in short, fast bursts, e.g. weight lifting, interval training.	
10.	Aerobic Endurance	The ability of the cardiorespiratory system to work efficiently.	
11.	Muscular Endurance	The ability of the muscular system to work efficiently, muscles can repeatedly contract over a period of time.	
12.	Flexibility	Moving the joints through their full range of movement.	
13.	Speed	Time taken to cover a distance (m/s).	
14.	Muscular Strength	Maximum force a muscle can exert (kg or N).	
15.	Body Composition	Ratio of fat to fat-free mass in the body.	
16.	Agility	Changing direction quickly.	
17.	Balance	Maintaining your centre of mass over a base of support Static balance - balancing without moving Dynamic balance - balancing whilst moving	
18.	Coordination	Ability of parts of the body to work together.	
19.	Power	Work done in a unit of time Power = force (kg) x distance (m) / time (min or s)	
20.	Cardiovascular Training	Continuous (steady state), interval, fartlek.	



PE: SPORTS SCIENCE - YEAR 10 - M2 Applying Principles of Training			RAG
21.	Resistance Training	Resistance machines, free weights, circuits.	
22.	Power Training	Interval training, plyometric, repetition and acceleration sprints.	
23.	Flexibility Training	Static (passive and active), dynamic.	
24.	Agility Training	Agility ladders, agility hurdles.	
25.	Balance Training	Balance board, exercise ball.	
LO3: Be able to conduct fitness tests			
26.	Pre-test Procedures	1.Gaining informed consent 2.Callibration of equipment	
27.	Strength Test	Burpee test, squat test.	
28.	Power Test	Vertical jump test, standing long jump test.	
29.	Agility Test	Shuttle run test, Illinois agility run test.	
30.	Balance Test	Standing Stork test.	
31.	Flexibility Test	Sit and reach test, trunk flexion test.	
32.	Muscular Endurance Test	1 minute press up, 1 minute sit up.	
33.	Cardiovascular Endurance Test	Cooper run, Harvard step test.	
34.	Submaximal Fitness Tests	Participant performs test at less than their maximal effort.	
35.	Maximal Fitness Tests	Participant performs test at their maximal effort.	
36.	Normative Data	Baseline data to compare fitness test results to.	
37.	Reliability	Repeatability - whether you can perform the test again in the same conditions.	
38.	Validity	Accuracy of the fitness test - is it a true reflection of what you were trying to measure?	
LO4: Be able to develop fitness training programmes			
39.	FITT Principle of Training	<ul style="list-style-type: none"> • F- Frequency - the number of training sessions you complete over a period of time • I - Intensity - how hard you train (prescribed using HR or RPE) • T - Time - how long you train for • T - Type - how you train. The appropriate methods should be selected according to needs and goals 	



PE: SPORTS SCIENCE - YEAR 10 - M2 Applying Principles of Training			RAG
40.	Principles of Training	<p>Specificity - Training should be specific to the sport/activity/goals</p> <p>Progression - Increase your training gradually</p> <p>Overload - Training needs to be intense enough to cause the body to change</p> <p>Reversibility - Training effects are reversed. Training is not intense enough or recovery is too long</p> <p>Tedium - Varying the training to prevent boredom</p>	
41.	SMART Goals	Goals used to set targets - Specific, Measurable, Achievable, Recorded, Timed.	



PE: SPORTS LEADERS - YEAR 10 - M2 Planning a Lesson		RAG
Roles, Skills and Behaviours of a Sports Leader:		
1.	Skills	Skills are the things that a group or an individual can do. Sporting example: Being able to communicate instructions to participants in a physical session.
2.	Verbal Communication	Any communication that uses words to share information with others.
3.	Non-verbal Communication	Includes the use of visual cues, such as body language distance, appearance, facial expressions and touch.
4.	Listening	After asking a sports performer a question, a response would be requested from the teacher/coach.
5.	Leadership Roles	<pre> graph TD SL[Sports Leaders] --> AC[Assistant coaches] SL --> SC[School coaches] SL --> SCAPT[Sports captains] SL --> CC[Club coaches] SL --> NCC[National club coaches/amateur coaches] SL --> PETA[PE Teacher] SL --> SM[Sports mentors] SL --> FI[Fitness instructor] </pre>
6.	Behaviours	Behaviours are what an individual can use to make them: <ul style="list-style-type: none"> • More effective at performing skills • Stand out from the crowd • Become more employable
7.	Leadership Behaviours	<pre> graph TD SL[Sports Leaders] --> PC[Professional conduct] SL --> TOL[Tolerance] SL --> RES[Respect] SL --> RIL[Resilience] SL --> APP[Approachability] SL --> PA[Positive attitude] SL --> COM[Commitment] SL --> DED[Dedication] </pre>



PE: SPORTS LEADERS - YEAR 10 - M2 Planning a Lesson			RAG
8.	Organisation	Organisation of equipment/resources of each lesson planned, as well as ability to structure and reflect on activities delivered.	
9.	Knowledge	Including: <ul style="list-style-type: none"> • The technical and tactical demands of the sport. • The specific fitness requirements for the sport. • The laws, rules and regulations of the sport. • The treatment of basic sports injuries and first-aid techniques. 	
10.	Language	Possessing a clear voice, using language that is appropriate for the performers you are working with. Effective language strategies include: <ul style="list-style-type: none"> • Rapport between and with performers • A sense of respect between performers 	
Leadership Styles and Qualities:			
11.	Autocratic	Leader makes all decisions and tells sports performers what to do and how to do it.	
12.	Democratic	Leader involves sports performers in the decision making process, but makes the final decision on what is to be delivered in the session.	
13.	Laissez-faire	Performers make the decisions. Sports leaders are used as mentors.	
14.	Intrinsic Motivation	Performers are motivated by the pleasure of activity and the satisfaction they feel from participating.	
15.	Extrinsic Motivation	Performers are motivated by external factors rather than the sport, such as a prize.	
16.	Humour	Performers' enjoyment is increased when they know a leader is approachable.	
17.	Personality	Defined as the characteristics that make an individual unique.	
18.	Introverts	Individuals who do not actively seek excitement, but require high concentration levels and accuracy in delivery.	
19.	Extroverts	Individuals who actively seek excitement, but require low levels of concentration.	
20.	Confidence	The belief that a sports leader can have the ability to stand and deliver a lesson and direct performers towards achieving a target.	
Planning Sports Activities:			
21.	Participants	Age, gender, group size, group ability, medical information, needs of participants.	
22.	Learning Outcomes	Results of the lesson planned; what happened and the aims and objectives met in the lesson.	
23.	Health & Safety	Procedures intended to prevent accident or injury in workplaces or public environments.	
24.	Warm Up	To prepare the performer both physically and mentally.	
25.	Main Component	Developing a skill or fitness component that was covered as a warm up or starter drill.	



PE: SPORTS LEADERS - YEAR 10 - M2 Planning a Lesson			RAG
26.	Conditioned Game	Special rules or restrictions that support the development of a skill or technique in a game situation.	
27.	Cool Down	Returning the body to pre-exercise condition.	
28.	Feedback/ Plenary	Information given by yourself or others which reflect on your performance.	
29.	SMART Targets	<ul style="list-style-type: none"> • Specific • Measurable • Achievable • Realistic • Timed 	
30.	Barriers	Obstacles preventing someone from participating in sport or physical activity.	



RS - YEAR 10 - M2 Relationships & Families			RAG
Lines	Sub-Topics	Key Teachings	
1.	Christian Teachings on Divorce & Remarriage	He answered, ‘Anyone who divorces his wife and marries another woman commits adultery against her. And if she divorces her husband and marries another man, she commits adultery.’ (Leviticus)	
2.	Muslim Teachings on Divorce & Remarriage	“... when any of you intend to divorce women, do so at a time when their prescribed waiting period can properly start ... if you are in doubt, the period of waiting shall be three months” (Qur’an) “Divorced women shall also have maintenance as is considered fair: this is a duty for those who are mindful of God.” (Qur’an)	
3.	Key Words on Divorce and Remarriage	Divorce: Legal ending of a marriage. Remarriage: When someone marries again while their former spouse (husband or wife) is still alive. Annulment: A Catholic Church ruling that a marriage was never valid.	
4.	Christian Teachings About the Nature of Families in the 21 st Century	“Here one learns endurance and the joy of work [...] love, generous - and even repeated - forgiveness, and above all divine worship and prayer and the offering of one’s life.” (Catechism 1657) “Anyone who does not provide for their relatives, and especially for their own household, has denied the faith and is worse than an unbeliever.” (St Paul’s Letter to Timothy)	
5.	Muslim Teachings About the Nature of Families in the 21 st Century	“Your lord has commanded that you should worship none but Him, and that you be kind to your parents. If either or both of them reach old age with you, say no word that shows impatience with them, and do not be harsh with them, but speak to them respectfully.” (Qur’an) “Heaven is under the feet of the mothers.” (Qur’an)	



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RS - YEAR 10 - M2 Relationships & Families		RAG
6.	Key Words About the Nature of Families in the 21 st Century	<p>Family: A group of people who are related by blood, marriage or adoption.</p> <p>Nuclear Family: A couple and their children regarded as a basic social unit.</p> <p>Stepfamily: A family that is formed on the remarriage of a divorced or widowed person and that includes a child or children.</p> <p>Same-Sex Parents: People of the same sex who are raising children together.</p> <p>Extended Family: A family that extends beyond just parents and their children including grandparents and other relatives as well.</p> <p>Polygamy: The practice or custom of having more than one wife at the same time.</p> <p>Bigamy: The offence in the UK of marrying someone while already married to another person.</p>
7.	Christian Teachings About the Purpose of Families in the 21 st Century	<p>“Children are a heritage from the LORD, offspring a reward from him. Like arrows in the hands of a warrior are children born in one’s youth. Blessed is the man whose quiver is full of them.” (Psalm 127)</p> <p>“Children, obey your parents in everything, for this pleases the Lord. Fathers, do not embitter your children, or they will become discouraged.” (St Paul’s Letter to the Colossians)</p>



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RS - YEAR 10 - M2 Relationships & Families		RAG
8.	Muslim Teachings About the Purpose of Families in the 21 st Century	<p>“For every tree there is a fruit and the fruit of the heart is the child.” (Hadith)</p> <p>“Honour your children and perfect their manners.” (Hadith)</p> <p>Lower your wing in the humility towards [your parents] in kindness and say, ‘Lord, have mercy on them, just as they cared for me when I was little.’ (Qur’an)</p> <p>“It is one greatest sins that a man should curse his parents.” (Hadith)</p> <p>“He who is good to his parents, blessings be upon him.” (Hadith)</p>
9.	Key words About the Purpose of Families in the 21 st Century	<p>Procreation: Bringing babies into the world; producing offspring.</p> <p>Stability: Safety and security; a stable society is one which people’s rights are protected and they are able to live peaceful, productive lives without continuous and rapid change.</p> <p>Protection of Children: Keeping children safe from harm.</p> <p>Educating Children in a Faith: Bringing up children according to the religious beliefs of the parents.</p>
10.	Christian Attitudes to Gender Equality	<p>“with painful labour you will give birth to children. Your desire will be for your husband, and he will rule over you.” (Genesis)</p>



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RS - YEAR 10 - M2 Relationships & Families			RAG
11.	St Paul's Teaching	"There is neither Jew nor Gentile, nor is there male and female, for you are all one in Christ Jesus." (Galatians)	
12.	Key words on Gender Equality	<p>Gender Equality: The idea that people should be given the same rights and opportunities regardless of whether they are male or female.</p> <p>Gender Prejudice: Unfairly judging someone before the facts are known; holding biased opinions about an individual or group based on their gender.</p> <p>Sexual Stereotyping: Having a fixed general idea or image of how men and women will behave.</p> <p>Gender Discrimination: To act against someone on the basis of their gender; discrimination is usually seen as wrong and may be against the law.</p>	



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