Sheffield Park Academy
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Knowledge Organiser

Term 3

Name: .....

Tutor Group: .....

Tutor & Room: .....

AMBITION • KNOWLEDGE • DETERMINATION

Stick your Timetable here

CONTENTS

How do I complete Knowledge Organiser home learning?

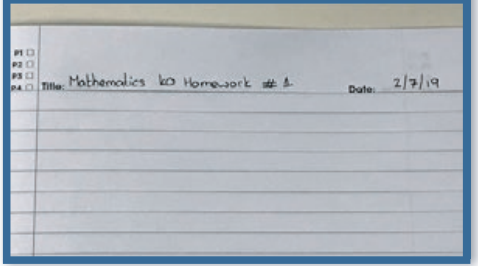
You will be set a MINIMUM of 2 Knowledge Organiser homeworks in every subject each half term

STEP 1

Identify what words/ definitions/facts you have been asked to learn.

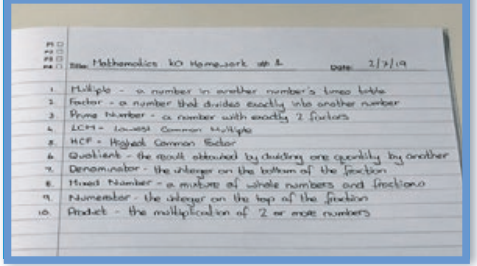
STEP 2

Write today's date and the title from your Knowledge Organiser.



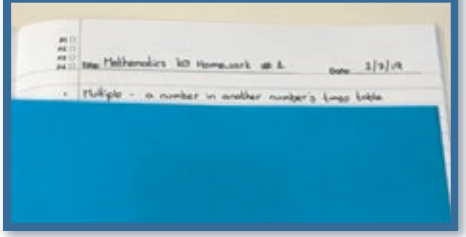
STEP 3

Write out the keywords/definitions/facts you have been set in FULL.



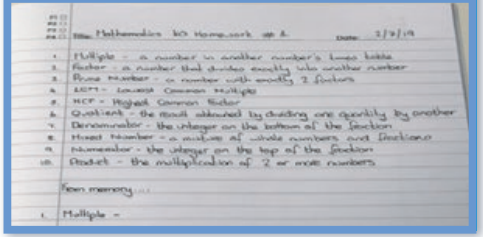
STEP 4

Cover the definitions in your SELF-QUIZZING BOOK, apart from the first. **Read it, Cover it, Say it** in your head, check it… REPEAT until confident.



STEP 5

Cover up ALL the definitions/facts and write them out from memory in your SELF-QUIZZING BOOK.



STEP 6

Check your answers and correct where required. Repeat Steps 4 to 6 until you are confident.

You will be **tested** on the words/definitions/ facts as a starter activity in your lesson on the day that the homework is due.

This will be completed in your normal exercise book and you will mark it in class.

Your Knowledge Organiser and Self-Quizzing Book

Knowledge Organisers

Knowledge Organisers contain critical, fundamental knowledge that you MUST know in order to be successful in Year 9 and subsequent years.

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

Self-Quizzing Book

This is the book that all Knowledge Organiser homework is to be completed in.

You must follow the simple rules as to how they are to be used.

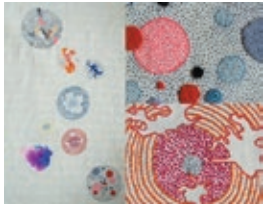
You **must** bring your Knowledge Organiser and Self-Quizzing Book to **every** lesson and place it on your desk at the beginning of each lesson.

You **must** keep all of your Knowledge Organisers and Self Quizzing Books because the fundamental knowledge required in Year 9 will also be required in in Key Stage 4.

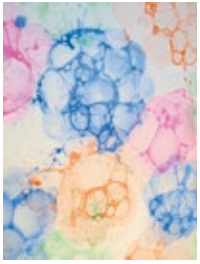
Knowledge Organisers are **NOT** a replacement for revision guides but they include the fundamental knowledge that ALL students in Year 9 require.

Y9 Art and Design – Micro Art

Key Words		
1	**Line**	The path made by a moving point.
1	**Micro**	Extremely small. Too small to be seen by the unaided eye.
2	**Tone**	The lightness and darkness of something.
5	**Form**	The way something looks three-Dimensional
6	**Shape**	A two-Dimensional area defined by an outline.
7	**Composition**	The arrangement or layout of parts of a picture/piece of art.
8	**Design**	Generating ideas for a piece of artwork.



Techniques		
9	**Wax trapping**	A process where items such as found papers, threads etc are trapped between layers and then coated in wax.
10	**Bubble art**	A process where paint bubbles are blown which are then transferred onto a surface.
11	**Mixed Media**	The use of a variety of materials to create a piece of art.
12	**Artist Research**	Investigating an artist relevant to the theme of the project.



Year 9 Computer Science Term 3 Knowledge Organiser		
Project planning		
1	**Task list**	A prioritized set of activities you (or your team) need to do to complete a project
2	**Mind map**	A mind map is a diagram used to visually organize information.
3	**Mood board**	An arrangement of images, materials, pieces of text, etc. intended to evoke or project a particular style or concept.
4	**Contingency plan**	A contingency plan is a plan devised for an outcome other than in the usual plan
5	**Gantt chart**	a type of bar chart that illustrates a project schedule and how long each task in the project should take

Project Evaluation		
1	**Feedback**	Information about reactions to a product or a person's performance of a task
2	**Stakeholder**	A stakeholder is a party that has an interest in a company and can either affect or be affected by the business.
3	**Client**	a person or organization using the services of professional person or company.
4	**Improvements**	Suggestions on how some thing could be made better
5	**Evaluation**	The making of a judgement about the amount, number, or value of something; assessment.

Y9 Practitioners - Term 3	
Areas for Assessment	
1. Creating	The ability to work within a group to create and develop performance work.
2. Performing	The ability to present a character using physical and vocal skills.
3. Evaluating	The ability to discuss the qualities of a performance using dramatic language.
Practitioners	
4. Konstantin Stanislavski	A Russian theatrical practitioner. He believed in naturalistic performances that were as realistic as possible
5. Naturalism	Aims to reflect real life and truth onstage, using natural forms of speech and physical expression
6. The fourth wall	An imaginary fourth wall separating the actors from the audience.
7. Bertolt Brecht	A German playwright who wanted to make the audience think, and used a range of devices to remind them that they were watching theatre and not real life
8. Epic Theatre	Aims to present a "political message"; educating the audience about an issue
9. Breaking the fourth wall	Talking directly to, or interacting, with the audience.
10. Antonin Artaud	French playwright, poet, actor and theatre director
11. Theatre of Cruelty	Aims for the audience to be "affected", shocked, and involved; wanted to cleanse the audience of their secret fears and desires

Year 9 English – Relationships Poetry

Key Terminology	Definition	General Effect
1. metaphor	A comparison in which one thing is said to be another.	This creates associations in our brains of the two things which are being compared. These associations help to create a more vivid image and help us to understand the writer's message.
2. extended metaphor	A metaphor which is developed through the text.	This creates associations in our brains of the two things which are being compared. These associations help to create a more vivid image and help us to understand the writer's message.
3. semantic field	A group of words which are associated in some way to one another.	Semantic fields evoke an image and create associations in our brains. These images and associations help us to create a more vivid picture and help us to understand the writer's message.
4. caesura	A break or pause in the middle of a line or verse indicated by a piece of punctuation.	A caesura creates a pause in a line and thus interrupts the pace of the line. This puts emphasis on the word or phrase before or after the caesura.
5. free verse	Refers to the form of a poem that does not have a regular pattern of rhyme or rhythm.	Free verse usually symbolizes something about the message of the poem. Generally, though not always, free verse symbolizes freedom or a lack of structure/order.
6. sonnet	A sonnet is one stanza, 14 line poem.	Sonnets cover themes such as love and the passage of love. Shakespearean sonnets have the rhyme scheme ABABCDCDEFEFGG. The end of a sonnet contains two successive lines that rhyme which is called a rhyming couplet.
7. elegy	A poem or song that is written in dedication to someone who has died.	The purpose of elegies is to lament (express grief) over the death of a person. It is used to mourn and to discuss what comes next in life. Elegies also usually discuss what the world is going to be like once the person is gone. The form is an elegy is usually in rhyming couplets which are two successive lines of poetry in which the words at the end rhyme.

Key Vocabulary	Definition
8. oppression	Based on or relating to a particular set of ideas of beliefs.
9. revolution	Unwillingness to accept views, beliefs, or behaviour that differ from one's own.
10. self-love	An appreciation of one's own worth or value.
11. mother tongue	The first language that you learn when you are a baby/growing up.
12. unconventional	Not conforming to what is done or believed in society.
13. bereavement	The death of a close relative or friend.
14. futility	A poem or song that is written in dedication to someone who has died.
15. materialism	The attitude of someone who attaches a lot of importance to money and wants to possess a lot of material things.
16. immortalise	To give everlasting fame and life to someone or something.
17. agency	In this context agency means the capacity of individuals to act independently and make their own choices.

Year 9 English – Short Stories (Identity and Relationships)

Key Vocabulary		
	Term	**Definition**
1	**Hierarchy**	A system of ranking according to relative status or authority.
2	**Homogenous**	Consisting of parts or elements which are all the same or alike.
3	**Masculinity**	A set of attributes, behaviors, and roles regarded as characteristic of men.
4	**Gender**	The social and cultural differences associated with being male or female.
5	**Epitome**	The perfect example of a thing or an idea.
6	**Refugee**	A person who has been forced to leave their country in order to escape war, persecution, or natural disaster.
7	**Empathy**	The ability to understand and share the feelings of another.
8	**Identity**	Who or what a person or thing is.
9	**Unpalatable**	An act or idea that is unpleasant or shocking and therefore difficult to accept.
10	**Liberty**	To be free of oppressive restrictions on one's way of life, behaviour, or political views.

Key Terminology		
		Definition
11	**Narrative voice**	The perspective a story is told from
12	**Characterisation**	A literary device in which in an author builds up a character in a narrative
13	**Third person omniscient narrator**	A type of narrative in which the story is related by a narrator who knows the thoughts and feelings of all the characters in the story.
14	**Speculative fiction**	A genre of fiction, usually set in the future, containing elements of dystopia and/science fiction but employing elements that already exist in some form.
15	**Coming-of-Age story**	A genre of literature that focuses on the growth of a protagonist from childhood to adulthood, often in terms of emotional rather than physical growth.

Freytag's Pyramid		
		Definition
1	**exposition**	Background information of the plot that includes character and setting.
2	**rising action**	Moments of conflict or tension that add suspense to help build up to the climax.
3	**climax**	The turning point of the plot. The most exciting and suspenseful moment of the plot.
4	**falling action**	Events that unravel or begin to resolve the conflict.
5	**resolution**	The final part of the plot – the conflict is resolved.

Y9 Food Technology Knowledge Organiser

Key words	Definition
1. Afternoon tea	A British meal in the afternoon, traditionally consisting of tea to drink with sandwiches, cakes, and scones.
2. Rubbing in method	A technique where flour is rubbed into a fat using the fingertips to make dishes such as shortcrust pastry, crumbles and scones.
3. Shortcrust pastry	Crumbly pastry made with half the amount of fat to flour, and a little water. Typically used for pies, flans, and tarts.
4. Coagulation	The setting of protein when heat is used. A liquid such as egg sets to a solid state.
5. Flaky pastry	A rich but light pastry in the form of very thin layers, used for making pies, small cakes.
6. All in one method	Where all the ingredients are mixed together at the same time. This is the quickest and easiest method especially for cupcakes and brownies.

Events | Revision

Year 9 French Knowledge Organiser

A	Si clauses	
1	Si j'étais riche	If I was I rich
2	Si j'avais le pouvoir	If I had the power
3	Si j'avais le choix	If I had the choice
4	Si j'avais plus d'argent	If I had more money
5	Si c'était possible	If It was possible
6	J'aimerais	I would like
7	Je changerais	I would change
8	Je voudrais	I would like
9	Il y aurait	There would be

C	General Opinions	
1	Je dirais que	I would say that
2	Autant que je sache	As far as I know
3	Je crois que	I believe that
4	Selon ___	According to ___
5	J'ai horreur de/d'___	I hate ___
6	Je ne supporte pas	I can't stand
7	___ m'intéresse	___ interests me
8	___ m'ennuie	___ bores me
9	___ m'embête	___ annoys me

B The Future Tense

Futur proche = Pronoun + Aller + Infinitve

Most verbs use **avoir** as an auxiliary verb

Je	vais	
Tu	vas	
Il/Elle/On	va	+ infinitive
Nous	allons	
Vous	allez	
Ils/elles	vont	

Infinitives are verbs that end in **-er, -ir, or -re**

For example:
je vais manger = I am going to eat
Vous allez apprendre = you are going to learn
Tu vas regarder = You are going to watch

Pronoun	Stem	Ending
Je		ai
Tu		as
Il/Elle/On		a
Nous		ons
Vous		ez
Ils/elles		Ont

The **futur simple** works slightly differently:
Pronoun + Stem + Future Ending

For example:
Je mangerai = I will eat
Vous apprendrai = You will learn
Tu regarderas = You will watch

D	Connectives	
1	Par contre	However
2	C'est à dire	That is to say
3	Donc	So/thus/therefore
4	Ainsi que	As well as
5	(Mal)heureusement	(Un)fortunately
6	Néanmoins	Nevertheless
7	À l'autre côté	On the other hand
8	En revanche	However
9	Même si	Even if
10	Sinon	If not
11	Car/Parce que/Puisque	Because
12	Également	Equally
13	Malgré	Despite
14	Malgré cela	Despite that
15	Sans doute	Without a doubt
16	Peut-être	Perhaps

E	Detail/Intensifiers	
1	Trop (de)	Too (many/much)
2	Beaucoup (de)	A lot (of)
3	Assez	Quite
4	Plutôt	Rather
5	Vraiment	Really
6	Extrêmement	Extremely

Build knowledge and confidence to be a determined and

competent linguist via an ambitious curriculum that builds

F	HT1: Town	
1	Dans ma ville	In my town
2	Il y a (un centre commercial)	There is
3	Il n'y a pas de (stade)	There isn't
4	Je voudrais habiter (au bord de la mer)	A shopping centre
5	J'ai habité (à la campagne)	A leisure centre
6	Il y a (trop de déchets)	A (super)market
7	Ma ville est tranquille/animé	A museum
8	Je vais habiter (à la montagne)	A cinema

G	HT2: Jobs	
1	Je voudrais/J'aimerais (être)	I would like (to be)
2	Je veux (travailler)	I want (to work)
3	Aller à l'université/à la fac	To go to university
4	Faire un apprentissage	To do an apprenticeship
5	Faire du bénévolat	To do voluntary work
6	Avocat(e)	Lawyer
7	Comptable	Accountant
8	Professeur	Teacher
9	Acteur/Actrice	Actor/Actress
10	Infermier/Infermière	Nurse
11	Ce serait	It would be
12	Divertissant	Entertaining
13	Gratifiant	Rewarding
14	Enrichissant	Enriching

H	HT3: Relationships	
1	Je m'entends bien avec	I get on well with
2	Je me dispute avec	I argue with
3	Je me fâche contre	I get angry with
4	Je m'intéresse à	I'm interested in
5	Je m'occupe de	I look after
6	Je me chamaille avec	I bicker with
7	Je ne m'entends pas avec	I don't get on with
8	Je me suis chamaillé(e) avec	I bickered with
9	Je vais m'occuper de	I am going to look after
10	Quand j'étais enfant	When I was a child
11	Quand j'étais plus jeune	When I was younger
12	Dans le futur je vais me marier	In the future I'm going to get married

I	HT4 : Environment	
1	Il faut/On doit	One must/You have to
2	On peut	You can
3	Recycler	recycle
4	Trier les déchets	Separate/sort rubbish
5	Consommer moins d'énergie	Use less energy
6	Utiliser les transports en commun	Use public transport
7	Aller au collège en vélo/à pied	Go to school by bike/on foot
8	Économiser de l'eau	Save water
9	Protèger l'environnement	Protect the environment
10	Sauver la planète	Save the planet
11	Aider les animaux	Help animals
12	Prendre la responsibilité	Take responsibility
13	Mèner une vie saine	Lead a healthy life

Year 9- Energy

1.	*Factors Affecting the Energy Mix*	
A	Population	. More people means more energy needed.
B	Wealth	Greater wealth leads to a greater energy demand.
C	Availability	If a country has its own natural resources e.g. coal, oil, wind etc.
D	Consumption	The amount of energy or power used.
E	Emissions	The by-product given off by burning an energy source e.g. carbon dioxide.
F	NIMBYism	Abbreviation for 'not in my backyard.'

2.	*Importance of Energy*	
A	Social Well Being	Normally refers to quality of life, e.g. happiness.
B	Economic Well Being	Having present and future financial security.
C	Energy Dependence	To rely on other countries for your energy supply e.g. to import oil.
D	Energy Security	To be relatively self-sufficient regarding to your energy supply.

6.	*Fracking*	
A	Fracking	Gas trapped in shale rock is released by pumping water and sand into the ground, which widens cracks in the ground, allowing the gas to escape.

3.	*Types of Energy*	
A	Renewable	Energy, which is infinite, sustainable and is easily replenished.
B	Non-renewable	Energy, which is finite, is not sustainable and takes a long time to replenish.
C	Finite	Something which will run out, come to an end.

4.	*Nuclear Energy*	
A	What it is:	This is non-renewable and comes from uranium.
B	Positive	Small amounts of uranium produces lots of energy.
C	Negative	1. Nuclear waste is toxic and must be stored for hundreds of years. 2. 2. Nuclear accidents can occur, which is a risk to human health.

5.	*The impacts of Energy Sources*		
		Advantages	Disadvantages
	Renewables		
A	Wind	1. Sustainable and will not run out. 2. Jobs created in the manufacture and installation of these.	1. Noise and visual pollution. 2. Bird strikes.
B	Solar	1. Easy to install on houses. 2. Jobs created in the manufacture and installation of these.	1. Unreliable e.g. if it is not sunny. 2. The panels are constructed from toxic materials.
C	Hydro-electric	1. One of the most reliable non-renewables. 2. Reservoirs create tourism and provide clean water.	1. Vegetation/ forests cleared for reservoir creation. 2. Farmland and settle
	Non -Renewables		
D	Coal	1. Efficient, cheap and reliable.	1. Creates carbon dioxide. 2. Finite.
E	Oil	1. Easy to transport. 2. Efficient	1. Oil spills. 2. We must import this from other countries.
F	Gas	1. Supplies available in the North Sea and from fracking. 2. Jobs in extraction created.	1. Finite. 2. Carbon dioxide produced.

Y9 History
Holocaust Knowledge Organiser

	Key People/Groups	
1	Adolf Hitler	Leader of the Nazi Party and Chancellor of Germany, 1933 - 1945
2	Himmler	Head of the SS.
3	Heydrich	Head of SS Einsatzgruppen and architect of the Final Solution.
4	Goering	Head of the Nazi economy.
5	Goebbels	Minister for propaganda.
6	SS	Schutzstaffel - Elite Nazi troops who were involved in carrying out the Holocaust.
7	Einsatzgruppen	"mobile killing units," best known for their role in the murder of Jews in mass shooting operations during the Holocaust.

	Keywords	Definition
1	Anti-Semitism	Hostility or prejudice against Jewish people.
2	Pogrom	Violent attacks directed against an ethnic minority.
3	Stereotype	A widely held but very simplified and often untrue view of a group of people e.g. English people all drink tea.
4	Aryan	An ancient European race which was the racially pure master race according to Hitler.
5	Nuremburg Laws	Passed in 1935 stripping Jews of all their rights as German citizens.
6	Kristallnacht	The 'night of broken glass' in which the Nazis and SA smashed and burnt Jewish business and synagogues.
7	Concentration Camp	Where political prisoners and undesirables were imprisoned and forced into hard labour.
8	Collaborator	Local people from invaded countries (e.g. Poland, Lithuania) who carried out atrocities and were also anti-Semitic.
9	Ghetto	Walled-off areas in cities in which Jews were forced to live.
10	Kindertransport	(German for "children's transport") was an organised rescue effort that took place during the nine months prior to the outbreak of the Second World War.

1905
The worst of a wave of pogroms in Odessa; The Protocols of the Elder of Zion are published; The Alien Act passed in Britain

1935
Nuremburg Laws passed. Laws affecting many minorities.

1945 - Liberation of Auschwitz

1905 | 1933 | 1935 | 1938 | 1939 | 1941 | 1942 | 1945

April 1,1933
SA boycott of shops and business owned by Jews.

1938
Kristallnacht marks the first acts of violence against Jews in Nazi Germany.

1939
Jews are rounded up into ghettoes.

1941
Einsatzgruppen start murdering Jews in occupied areas .

1942-1945
Zyklon B gas begins to be used to kill Jews in purpose built Extermination camps.

Year: 9 – Knowledge Organiser
Topic: Civil Rights

Key Words – Civil Rights

1	**Segregation**	The separation of an ethnic, racial, or religious group from others.
2	**Racism**	Discrimination or hatred based on race.
3	**Civil Rights**	Political, social and economic rights that make all groups equal.
4	**Campaigners**	People who actively fight for and promote a specific set of ideas. Like civil rights.
5	**Authorities**	The person or people who are in charge, like government, police etc.
6	**Broederbond**	A secret society of Afrikaner Nationalists (South Africa) committed to securing and maintaining Afrikaner control over important areas of government.
7	**Afrikaner**	An Afrikaans-speaking native of South Africa of European (white), especially Dutch, descent.
8	**Apartheid**	A strict South African policy of segregating and economically and politically oppressing the non-white population.
9	**Defiance**	Resisting authority, often daring or bold resistance to authority or to any opposing force.
10	**Opposition**	A person or group of people criticizing, or protesting something, someone, or another group.
11	**Strike**	A planned stoppage of work in order to force employers or other authorities to make changes, like pay, working conditions, or racism.
12	**Boycott**	When people refuse to buy something as a protest.
13	**Caste (System)**	the rigid Hindu system of hereditary social distinctions based on castes or groups within society.
14	**Ahisma**	an ancient Indian principle of nonviolence which applies to all living beings
15	**Satyagraha**	A particular form of nonviolent resistance or civil resistance, from India.
16	**Mahatma**	An honorific title that in Sanskrit means "great soul". Was given to Gandhi.

Areas of our study

1. Civil Rights: An Introduction
2. Rise of Apartheid
3. Early Opposition to Apartheid
4. Nelson Mandela
5. The End of Apartheid
6. Rosa Parks
7. Martin Luther King
8. Gandhi
9. Comparing Campaigners

For More Information

Gandhi Biography - https://www.youtube.com/watch?v=hpZwCRInrgo

Nelson Mandela - https://www.youtube.com/watch?v=cRq4RLXnLZE

Martin Luther King Jr. https://www.youtube.com/watch?v=y-MDR9YaAM8

Key Assessment
End of Year Assessment

Mahatma Gandhi

Ahisma Symbol

Nelson Mandela

Martin Luther King Jr.

Key dates – Civil Rights

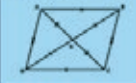
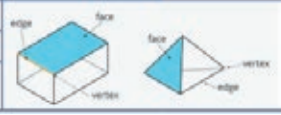
AD 1909	Gandhi's first campaign in South Africa.
AD 1919	Amritsar Massacre takes place in India.
AD 1930	Gandhi marched 388 km, the Salt March
AD 1942	Launches the Quit India Movement demanding the end of British rule in India.
AD 1947	The British leave India, dividing it into India and Pakistan.
AD 1948	Policy of apartheid (separateness) adopted when National Party (NP) takes power.
AD 1949	Programme of Action (anti-apartheid campaign) begins.
AD 1952	Defiance Campaign begins
AD 1955	Rosa Parks, Montgomery Bus Boycott.
AD 1960	Greensboro Sit-In
AD 1961	South Africa leaves the Commonwealth. Mandela heads ANC's new military wing, which launches sabotage campaign.
AD 1963	March on Washington, MLK's *I had Dream* speech.
AD 1963 - 1990	Nelson Mandela in prison.
AD 1994	Mandela wins the Presidency.
AD 1968	Martin Luther King Jr. assassinated.

Key Individuals – Civil Rights

Nelson Mandela	South African Black antiapartheid activist: president of South Africa 1994–99.
Rosa Parks	U.S. civil rights leader, famous from the Montgomery Bus Boycott.
Martin Luther King Jr.	US Civil Rights leader, became one of the most important activists.
Gandhi	1869–1948, Hindu religious leader, nationalist, and social reformer.

Y9 Mathematics – An ambitious curriculum, rich in skills and knowledge, which prepares you to be future leaders through your learning of problem-solving.

KPI 9.19 Properties of Shapes

1) Polygon	A polygon is a two-dimensional shape with 3 or more straight sides. A polygon is either regular or irregular: Regular – side lengths are equal, and all angles are equal. Irregular – side lengths are unequal, and angles are unequal.		
2) 3 sides	Triangle	**3) 4 sides**	Quadrilateral
4) 5 sides	Pentagon	**5) 6 sides**	Hexagon
6) 7 sides	Heptagon	**7) 8 sides**	Octagon
8) 9 sides	Nonagon	**9) 10 sides**	Decagon
10) 11 sides	Hendecagon	**11) 12 sides**	Dodecagon
12) Equilateral triangle	3 equal angles 3 equal sides 	**13) Isosceles triangle**	2 equal angles 2 equal sides 
14) Scalene triangle	All angles are different All sides are different 	**15) Right angled triangle**	One angle of 90°. Can be isosceles or scalene.
16) Square 	4 right angles 4 equal sides 2 pairs of parallel side Diagonals are of equal length, perpendicular and bisect each other.	**17) Rectangle** 	4 right angles 2 pairs of parallel sides 2 pairs of equal sides Diagonals are of equal length and bisect each other but are not perpendicular.
18) Parallelogram 	2 pairs of equal sized angles 2 pairs of parallel sides 2 pairs of equal sides Diagonals bisect each other but are not of equal length or perpendicular.	**19) Rhombus** 	4 equal sides 2 pairs of equal sized angles 2 pairs of parallel sides Diagonals are perpendicular and bisect each other but are not of equal length.
20) Trapezium	1 pair of parallel sides	**23) Kite** 	1 pair of equal sized angles 2 pairs of equal sides Diagonals are perpendicular and the longer one bisects the shorter one.
21) Right angled trapezium	2 right angles 1 pair of parallel sides		
22) Isosceles trapezium	1 pair of parallel sides 2 pairs of equal sides 2 pairs of equal sized angles		
24) Face	A face is a single flat surface		
25) Edge	An edge is a line segment between faces		
26) Vertex	A vertex is a **corner**		

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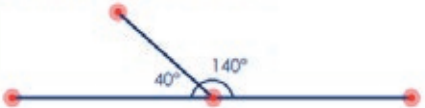
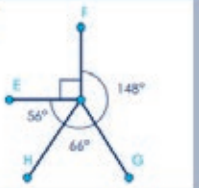
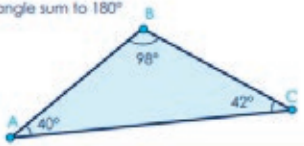
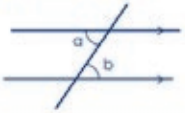
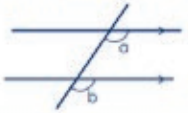
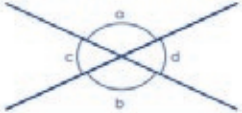
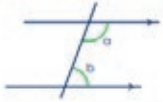
KPI 9.20 Angle Facts

1) Angles on a straight line	Angles on a straight-line sum to 180° 	**2) Angles around a point**	Angles around a point sum to 360° 
3) Angles in a triangle	Angles in a triangle sum to 180° 	**4) Angles in a quadrilateral**	Angles in a quadrilateral sum to 360° 

KPI 9.21 Angles in Parallel Lines

1) Alternate angles	Alternate angles are equal, so a = b 	**2) Corresponding angles**	Corresponding angles are equal, so a = b 
3) Vertically opposite angles	Vertically opposite angles are equal, so, a = b and c = d 	**4) Co-interior angles**	Co-interior angles sum to 180°, so a + b = 180° 

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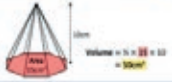
KPI 9.22 Circles

1) Circumference	The perimeter of the circle. $C = \pi d$	5) Area of a circle	$A = \pi r^2$
2) Perimeter of a semi-circle	$P = \frac{\pi d}{2} + d$	6) Area of a semi-circle	$A = \frac{\pi r^2}{2}$
3) Perimeter of a quarter circle	$P = \frac{\pi d}{4} + 2r$	7) Area of a quarter-circle	$A = \frac{\pi r^2}{4}$
4) Perimeter of a three-quarter circle	$P = \frac{3}{4} \pi d + 2r$	8) Area of a three-quarter circle	$A = \frac{3\pi r^2}{4}$

KPI 9.23 Volume

1) Volume	The volume of a solid body is the amount of 'space' it occupies. It is measured in cubic units e.g. cubic centimetres (cm^3).	
2) Prism	Volume of a prism = area of cross section × length.	
3) Cylinder	Volume of cylinder = $\pi r^2 h$	
4) Pyramid	Volume of a pyramid = $\frac{1}{3}$ × area of the base × perpendicular height	
5) Cone	Volume of cone = $\frac{1}{3} \pi r^2 h$	
6) Sphere	Volume of sphere = $\frac{4}{3} \pi r^3$	
7) Hemi-sphere	Volume of hemi-sphere = $\frac{2}{3} \pi r^3$	

8) Converting units of volume

cm^3	$\times (10)^3$	mm^3
m^3	$\times (100)^3$	cm^3

$1cm^3 = 1\,000mm^3$

$1m^3 = 1\,000\,000cm^3$

mm^3	$\div (10)^3$	cm^3
cm^3	$\div (100)^3$	m^3

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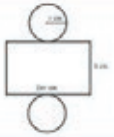
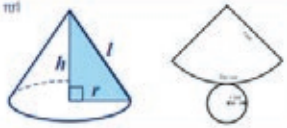
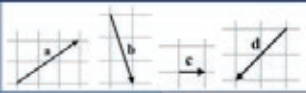
KPI 9.24 Surface Area

1) Surface Area	The total area of the surface of a three-dimensional object. For example, the surface area of a cube is the area of all 6 faces added together. It is measured in square units. E.g. square centimetres (cm^2), square metres (m^2).		
2) Cylinder	Surface Area = $2\pi r^2+2\pi rh$ 	**3) Cone**	Surface Area = $\pi r^2+\pi rl$ 
4) Sphere	Surface Area = $4\pi r^2$	**5) Hemi-sphere**	Surface Area of a Hemi-sphere = $3\pi r^2$

KPI 9.25 Basic Vectors

1) Vector	Vectors represent movement of a certain size in a certain direction, they are represented on a diagram with an arrow.		
2) Magnitude	Magnitude is defined as the length of a vector.	**3) Scalar**	A scalar is the number we multiply a vector by.
4) Column vector	$\begin{pmatrix} a \\ b \end{pmatrix}$	a: movement along the x-axis (left/right) b: movement along the y-axis (up/down)	
5) Adding and subtracting column vectors	$\begin{pmatrix} a \\ b \end{pmatrix} + \begin{pmatrix} c \\ d \end{pmatrix} = \begin{pmatrix} a+c \\ b+d \end{pmatrix}$	**6) Multiplying vectors**	To multiply a column vector by a number, we multiply both values in the vector by that number.
7) Resultant vectors	The resultant vector is the vector that results from adding two or more vectors together.		
8) Parallel vectors	Travel in the same or opposite direction. Can be of varying lengths. Must be scalar multiples of one another.	The vectors $\begin{pmatrix} 8 \\ 12 \end{pmatrix}$ and $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ are parallel because $\begin{pmatrix} 8 \\ 12 \end{pmatrix} = 4\begin{pmatrix} 2 \\ 3 \end{pmatrix}$	

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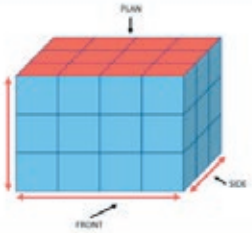
KPI 9.26 Sequences			
1) Sequence	A pattern of numbers which fit a certain rule.	**2) Term**	A number in a sequence.
3) Term to term rule	The rule for how to get from one number to the next number in the sequence.	**4) Position**	Where a term is in a sequence.
5) Position to term rule	The rule for how to work out a number in a sequence if you know its position.	**6) Nth term**	Used to find a term in a sequence given its position E.g. $5n + 3$
7) Linear sequence	The terms increase or decrease by the same amount each time. Also known as an arithmetic sequence. Nth term is written in the form. $an + b$.	**8) Quadratic sequence**	Nth term is written in the form $an^2 + bn + c$
9) Geometric sequence	A geometric sequence goes from one term to the next by always multiplying or dividing by the same value.	**10) Fibonacci sequence**	The Fibonacci sequence is unique because the next term is found by adding up the two previous terms 1, 1, 2, 3, 5, 8, 13, 21...

KPI 9.27 Plans and Elevations		
1) Plan	View looking vertically downwards.	
2) Side elevation	View looking horizontally from the side.	
3) Front elevation	View looking horizontally from the front.	

Year 9 Term 3 Music
Reggae Music

	ELEMENT TERM	DEFINITION
1	Pitch	How high or low the music is.
2	Tempo	The speed of the music as a whole.
3	Dynamics	The volume of the music notes being performed
4	Texture	The layers of music (thick or thin).
5	Major	A brighter/happy sounding chord
6	Minor	A darker/somber sounding chord.

Snare Drum

Bass Guitar

Electric organ

	Reggae	Definition
7.	Reggae	A genre of music made famous in Jamaica
8.	Bassline	A low-pitched melody that accompanies the song.
9.	Offbeat	Guitar & Piano emphasis chords on beats 2 & 4 or on the second weaker quaver e.g. 1+ 2+. This is called a chop.
10.	Riff	Repeated music pattern. Often the bass line will be based around a riff.
11.	Chord	3 or more notes played at the same time.
12.	Rim Shot	Where the drumstick hits the rim (outer part) and the skin of the snare drum simultaneously.
13,.	Horn Stab	Short interjecting melodies played by the 'horn section'
14.	Political Lyrics	Songs often critical of politics and raise awareness of social issues such as racism and poverty
15.	Staccato	When notes are played short and detached.
16	Groove	The rhythmic feel of its music and the way that instruments of the rhythm section interact to create a combined rhythmic effect.

KS3 Religious Education Knowledge Organiser - Medical Ethics

1	Sanctity of Life	The belief that life is sacred because God created it

VS

2	Quality of Life	How good someone's life is

1	Abortion	The deliberate ending of a pregnancy
2	Pro-life	The belief that abortion is wrong
3	Pro-choice	The belief that women should have the right to choose abortion
4	Necessary evil	An evil that someone believes must be done or accepted because it is necessary to achieve a better outcome
5	Ensoulment	The moment at which a human being gains a soul

1	Fertility treatments	Medical ways to help someone have a baby when they are unable to do so naturally
2	Artificial insemination	A doctor inserts sperm directly into a woman's cervix, fallopian tubes, or uterus
3	Donor egg/sperm	An egg/sperm donated from a third party to aid conception
4	Conception	The point at which the sperm meets the egg
5	In vitro fertilisation (IVF)	An egg is removed from the woman's ovaries and fertilised with sperm in a laboratory. The fertilised egg, called an embryo, is then returned to the woman's womb to grow and develop

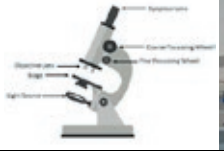
1	Euthanasia	Helping someone to die who is suffering from a terminal illness
2	Assisted suicide	Deliberately assisting or encouraging another person to end their own life
3	Voluntary euthanasia	A person asks for their own life to be ended
4	Non-voluntary euthanasia	A person cannot make a decision about euthanasia or cannot make their wishes known, and so someone else, e.g. a doctor or a family member, decides that it would be in the person's best interest if their life was ended. For example, if the person is in a coma
5	Involuntary euthanasia	A person wants to live, but someone else, e.g. a doctor or a family member, decides that it would be in the person's best interest if their life was ended. For example, if a person has had an accident that will lead to imminent and painful death, a decision might be made to end their life even if the person wanted to live
6	Suicide	When someone takes their own life

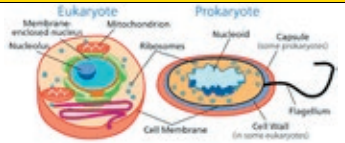
Knowledge Organisers – Year 9 Resistant Materials

Areas of Assessment	
1. Explore	Understanding, contexts, users, and purpose
2. Design	Generating, developing, modelling, and communicating ideas
3. Realise	Planning and sequencing, modelling, prototyping
4. Evaluate	Own ideas and products, other products, prolific designers
5. Technical Knowledge	Making products work
6. Communication	Presenting and sharing ideas

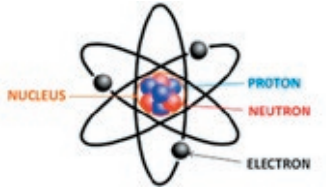
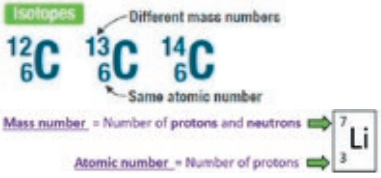
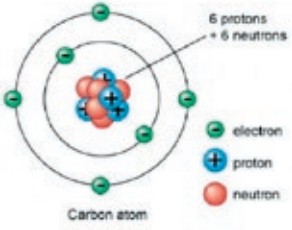
Project	
Word	**Meaning**
1. Safety	Designed to prevent injury or harm
2. Bench Hook	A simple piece of equipment used to hold a workpiece in place whilst cutting
3. Marking out	Transferring a design or pattern on to a work piece
4. Tri Square	A woodworking tool used for marking out or checking 90° angles.
5. MDF	Medium Density Fibreboard. A type of manufactured board made from small fibres of wood combined with resin and compressed.
6. Pillar Drill	A freestanding machine used to make holes in different materials
7. Jig	Also target group; the intended user/buyer.
8. Modification	Making gradual improvements to a design.
9. Accurate	Quality of measurement and making. Being precise.
10.Tenon Saw	Short, stiff blade which is designed for accurate, straight cuts in wood.
11.Coping saw	Thin blade which is designed to cut curved shapes into materials
12.Annotation	Explaining and evaluating your design choices in order to improve them.
13.Acrylic	A thermoplastic which is made from a chemical reaction
14.Belt Sander	A Sander used in the shaping and finishing of wood.
15.Vice	Tool used for holding wood in place whilst cutting or planning.

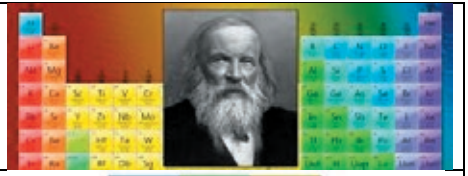
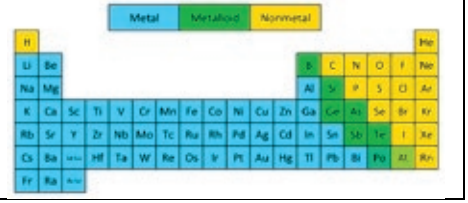
Science	Year 9	Knowledge organiser (Biology)

B1	Microscopy	
Key word	**Definition**	
Organelle/ Sub-cellular structures	An organelle is a subcellular structure that has one or more specific jobs to perform in the cell.	 
Light Microscope	A light microscope is a type of microscope that is commonly used in school. This generates magnified images of small objects.	
Electron microscopes	They produce higher-resolution images and magnification than standard light microscopes.	

B1	Cells	
Key word	**Definition**	
Cells	Cells are the basic building blocks of all living things.	
Eukaryotic Cells	Cell with a nucleus.	
Prokaryotic Cells	Cell without a nucleus.	
Mitochondria	Where respiration takes place to release energy.	
Ribosomes	Where proteins are made.	

Science	Year 9	Knowledge organiser (Chemistry)

C1	Atomic Structure and the Periodic Table	
Key word	**Definition**	
Proton	Protons have a charge of +1 and mass of 1.	
Electron	Electrons have a charge of -1 and mass of almost 0.	
Neutron	Neutrons have a charge of 0 and a mass of 1.	
Nucleus	Protons and neutrons are in the centre of the atom, making up the nucleus. Electrons orbit the nucleus.	
Isotopes	An atom with the same number of protons but different number of neutrons.	
Atomic number	The number of protons in an atom's nucleus.	
Atomic mass	The mass of protons and neutrons in an atom.	
Neutral atom	An atom with equal number of protons and electrons.	
Shells	An electron shell is the outside part of an atom around the atomic nucleus.	

Mendeleev	Mendeleev made an early periodic table (groups/periods).	
Alkali Metals	Group 1 metals - very reactive (due to single electron in outer shell).	
Halogens	Group 7 non-metals - very reactive (due to having 7 electrons in outer shell)	

P3 – particle model key words	Taught in Y9
Mass (m)	The amount of matter in a substance, measured in kg
Volume (V)	The amount of space a substance takes up, measured in m^3
Density (ρ)	How tightly packed matter is within a substance, measured in kg/m^3 or g/cm^3 Calculated using the equation density = mass/volume
System	An object or group of objects that can be considered closed off from the external world
Temperature	A measure of the average kinetic energy of all particles within a system, measured in °C
Internal energy	The total energy stored within a system, made up of the kinetic and potential energies of all particles within the system
Kinetic energy of particles	The speed at which the particles in a system are moving
Potential energy of particles	The amount that particles within a system can move. Solids have very low potential energy, gases have very high potential energy
Heating	The transfer of energy from a hotter object to a cooler one
Specific heat capacity	The energy required to change the temperature of 1kg of substance by 1°C, measured in J/kg°C.
Latent	Hidden or unseen
Specific latent heat of fusion	The energy required to change 1kg of substance from solid to liquid
Specific latent heat of vaporization	The energy required to change 1kg of substance from liquid to gas
Pressure	The force per unit area, measured in Pascals (Pa)
Gas pressure	The force on the walls of a container from the gas particles colliding. This force is at right angles to the walls of the container

Physics units

Unit	Symbol	Measured in
Mass	m	Kilograms (kg)
Volume	V	Meters cubed (m^3)
Density	ρ	Kilograms per meter cubed (kg/m^3)
Distance	s	Meters (m)
Time	t	Seconds (s)
Temperature	T	Degrees Celsius (°C)
Frequency	f	Hertz (Hz)
Electric charge	Q	Coulombs (C)
Electric current	I	Amperes (A)
Potential difference	V	Volts (V)
Resistance	R	Ohms (Ω)
Speed	v	Meters per second (m/s)
Acceleration	a	Meters per second squared (m/s^2)
Momentum	p	Kilogram meters per second (kgm/s)
Force	F	Newtons (N)
Pressure	P	Pascals (Pa)
Energy	E	Joules (J)
Power	P	Watts (W)

AQA GCSE Physics – Equations & Formulae (specification 8463 & 8464)

Unit 1: Energy

Equations to Learn	
kinetic energy = $\frac{1}{2}$ × mass × speed^2	$E_K = \frac{1}{2}mv^2$
GPE = mass × gravitational field strength × height	$E_p = mgh$
power = $\frac{\text{work done}}{\text{time taken}} = \frac{\text{energy transferred}}{\text{time taken}}$	$P = \frac{W}{t} = \frac{E}{t}$
efficiency = $\frac{\text{useful energy output}}{\text{total energy input}}$ efficiency = $\frac{\text{useful power output}}{\text{total power input}}$	
Equations given in the exam	
elastic potential energy = 0.5 × spring constant x (extension)^2	$E_e = \frac{1}{2}ke^2$
change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = mc\Delta\theta$

Unit 2: Electricity

Equations to Learn	
charge flow = current × time	$Q = I\,t$
potential difference = current × resistance	$V = I\,R$
total resistance = resistance of component 1 + resistance of component 2	$R_T = R_1 + R_2$
power = current × potential difference	$P = I\,V$
power = (current)^2 × resistance	$P = I^2R$
energy transferred = power × time	$E = Pt$
energy transferred = charge flow × potential difference	$E = QV$

* Higher tier only

^ Separate Physics only

Unit 3: Particle Model of Matter

Equations to Learn	
density = $\frac{\text{mass}}{\text{volume}}$	$\rho = \frac{m}{V}$
Equations given in the exam	
change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = mc\Delta\theta$
thermal energy for a change in state = mass × specific latent heat	$E = mL$
^ for a gas: pressure × volume = constant	$pV = constant$

Unit 6: Waves

Equations to Learn	
wave speed = frequency × wavelength	$v = f\,\lambda$
Equations given in the exam	
time period = $\frac{1}{\text{frequency}}$	$T = \frac{1}{f}$
^ magnification = $\frac{\text{image height}}{\text{object height}}$	$M = \frac{h_{image}}{h_{object}}$

Unit 7: Magnetism and Electromagnetism

Equations given in the exam	
* Force = magnetic flux density × current × length of conductor in magnetic field	$F = BIl$
* $\frac{\text{potential difference across primary coil}}{\text{potential difference across secondary coil}} = \frac{\text{number of turns in primary coil}}{\text{number of turns in secondary coil}}$	$\frac{V_P}{V_S} = \frac{N_P}{N_S}$
* ^ p.d across primary × current in primary = p.d. across secondary x current in secondary	$V_P I_P = V_S I_S$

Unit 5: Forces

Equations to Learn	
weight = mass × gravitational field strength	$W = m\,g$
work done = force × distance (moved along the line of action of the force)	$W = Fs$
force = spring constant × extension	$F = ke$
moment of a force = force × distance (perpendicular to the direction of the force)	$M = Fd$
pressure = $\frac{\text{force normal to a surface}}{\text{area of that surface}}$	$p = \frac{F}{A}$
distance travelled = speed × time	$s = vt$
acceleration = $\frac{\text{change in velocity}}{\text{time taken}}$ $= \frac{\text{final velocity-initial velocity}}{\text{time taken}}$	$a = \frac{\Delta v}{t}$ $= \frac{v-u}{t}$
resultant force = mass × acceleration	$F = ma$
* momentum = mass × velocity	$p = mv$
Equations given in the exam	
* ^ Pressure = height of column × density of liquid × gravitational field strength	$p = h\,\rho\,g$
^ (final velocity)^2 – (initial velocity)^2 = 2 × acceleration × distance	$v^2 - u^2 = 2as$
* ^ Force = $\frac{\text{change in momentum}}{\text{time taken}}$	$F = \frac{m\,\Delta v}{t}$

Unit 4: Atomic Structure & Unit 8: Space

There are no equations in these sections of the course

Knowledge Organisers – Textiles Year 9

Areas of Assessment	
1. Explore	Understanding, contexts, users and purpose
2. Design	Generating, developing, modelling, and communicating ideas
3. Realise	Planning and sequencing, modelling, prototyping
4. Evaluate	Own ideas and products, other products, prolific designers
5. Technical Knowledge	Making products work
6. Communication	Presenting and sharing ideas

Applique Project	
Word	**Meaning**
1. Thread	A long, thin strand of cotton, nylon, or other fibres used in sewing or weaving.
2. Needles	A very fine slender piece of polished metal with a point at one end and a hole or eye for thread at the other, used in sewing.
3. Pins	Pins are used for temporary joining.
4. Fabric	Cloth or other material produced by weaving or knitting fibres.
5. Applique	Ornamental needlework in which pieces of fabric are sewn on to a larger piece to form a picture or pattern.
6. CAD/CAM	CAD/CAM refers to the integration of Computer-aided design (CAD) and Computer-aided manufacturing (CAM).
7. Target Market	Also target group; the intended user/buyer.
8. Task Analysis	Working out what needs to be done in order to respond to the design brief.
9. Design Specification	A design specification is a list of criteria a product needs to address.
10. Technique	A method used to add a feature to a fabric.
11. Aesthetics	The visual design appeal.
12. Interfacing	An extra layer of material between the main fabric and the lining fabric.
13. Shears	A cutting instrument in which two blades move past each other, like scissors but typically larger.
14. Fusible	Can stick to a fabric, using heat to fuse.
15. Prototype	The first trial product made to test materials, techniques, and processes.
16. Evaluation	An evaluation help determine what works well and what could be improved.
17. Landfill	When waste is dumped and then covered over.
18. Critical control points (CCPs)	The stage at which checks are made.

Home Learning Priorities

Planner

Monday 18th	
Tuesday 19th	
Wednesday 20th	
Thursday 21st	
Friday 22nd	

Monday 25th	
Tuesday 26th	
Wednesday 27th	
Thursday 28th	
Friday 29th	

Monday 2nd	
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Thursday 14th	
Friday 15th	

Monday 18th	
Tuesday 19th	
Wednesday 20th	
Thursday 21st	
Friday 22nd	

Ambition . Knowledge . Determination . Leadership

Ambition

My short, mid term and long term ambitions are:

Knowledge

The subjects I need to work hardest in this term are:

	Target grade
English	
Maths	
Science	

Ambition . Knowledge . Determination . Leadership

Determination

One area I need to improve in is:

Leadership

One way in which I will help others to show leadership is:

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