KS3 Knowledge Organiser
Year 8 Term 1

Knowledge Organisers will be given out by English, Maths, Science, MFL, History and Geography on a termly basis. Each Knowledge Organiser will have three sections of information linked to the lesson content for that fortnight. Once every two weeks, students will be directed to revise one of the three topics ahead of a quiz during a lesson. These will be available to see on our school website.

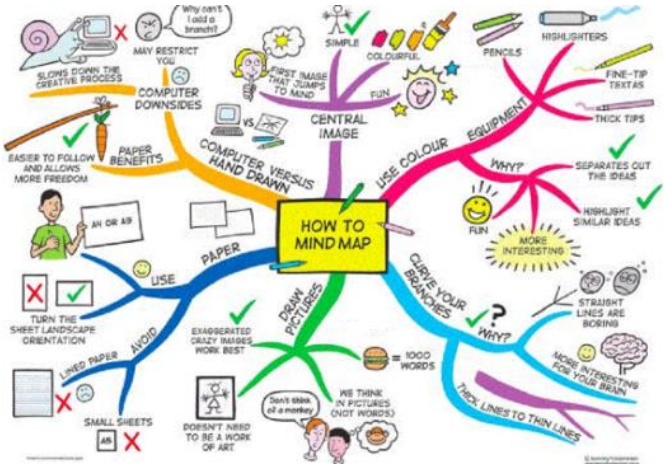
Homework club is every Tuesday, Wednesday and Thursday from 3pm to 4pm in the library.

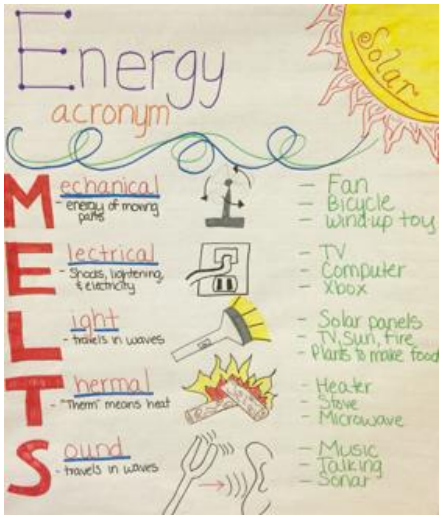
Email address for any queries:

English:	Miss Epsley	epslm001@g-a-t.co.uk
Maths:	Mr Goee	goeem003@g-a-t.co.uk
Science:	Mrs Bennett	bailc197@g-a-t.co.uk
MFL:	Mrs Turke	turka041@g-a-t.co.uk
History:	Mr Uddin	uddis462@g-a-t.co.uk
Geography:	Mr Razzell	gowec018@g-a-t.co.uk

Here are some strategies that might help you:

- Be ACTIVE!
- Take notes - use highlighter pens, colour coding, or diagrams.
- Click on the links which will take you to the relevant websites or videos.
- Try converting the information into a mind map
- Make a glossary of keywords, with definitions or a list of formulas.
- Get someone to test you.
- Make key word posters.
- Write notes again and again and again!
- Look cover say write check
- Mnemonics – **N**aughty **E**lephants **S**quirt **W**ater (for learning North, East, South and West)
- Write postcards to summarise a topic.
- 15 minute revision sessions, any longer could be counter productive





ENGLISH
Of Mice and Men

Year 8
Term 1

Topic 1 – Language techniques and punctuation	**Topic 2 – Structural Techniques**	**Topic 3 – Literary Devices**
Learn the definitions of these language techniques, and punctuation: Simile → Comparison. Using like, or as. Metaphor → Comparison. Saying something is something else. Connotation → What a word makes you think of, or feel. A positive, or a negative word. Personification → Making an object come to life. Adjectives → Describing words. Description → Words used to help the audience understand more about a character/setting. Imagery → Phrases used to create a picture in the audiences mind. Comma → Adds detail to a sentence. Tells the reader where to take a breath. Semi-colon → Joins two sentences together. Replaces a connective. Full stop → Used to mark the end of a sentence.	Learn the definitions of these structural techniques: Simple sentence → One idea about the same topic. Compound sentence → 2 simple sentences joined by a conjunction (FANBOYS) Complex sentence → More than one idea, more than one piece of punctuation. Minor sentence → One word sentence. Direct speech → What a character says. Marked by inverted commas. Beginning → The introduction of character, setting and atmosphere in a piece of text. Middle → The plot/action of a piece of text. Where plot points are introduced. End → Resolution of the plot. Usually where the character/audience have learnt a lesson, or problems have been resolved. Shift → A change in mood/atmosphere/setting/character. Focus → Looking closely at a part of the story in detail.	Learn the defintions of these literary devices: Character → A person in a play/novel/film Setting → Where a text is set Foreshadows → Hints at the future Theme → A recoccuring image in a text Dialogue → Speech Symbolism → the use of an object to represent a bigger idea Imagery → A vivid description that paints a picture for the reader Suspense → feeling of excited or anxious uncertainty about what may happen. Tension →Phrases that create fear, or worry in a text. Hightened dramatic effect. Drama → an exciting, emotional, or unexpected event or circumstance Structure → The way the text is set out. Beginning, middle and end. Author's Intentions → 5 W's for the author. Why they wrote the text, what influenced them to write, and when the text was written.
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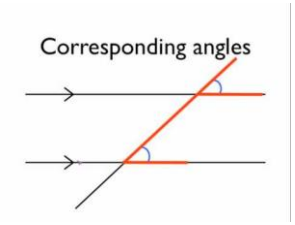
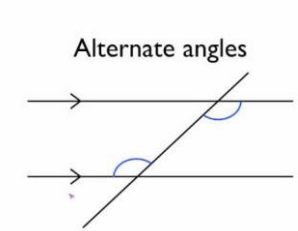
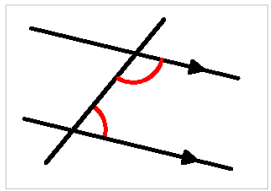
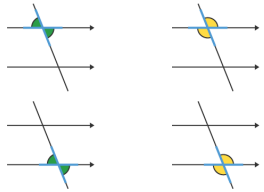
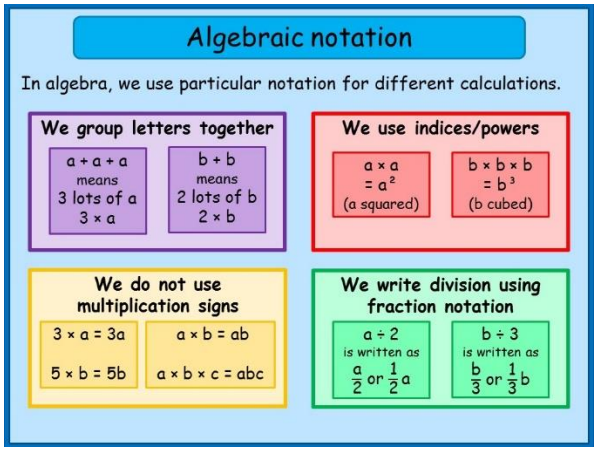
Mathematics

Working with Number, angle types and algebra notation

Year 8
Term 1

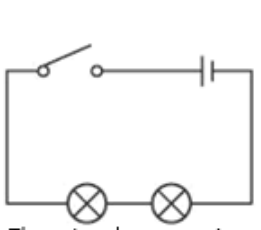
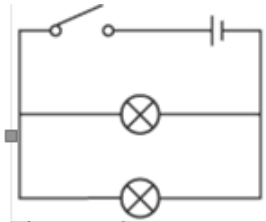
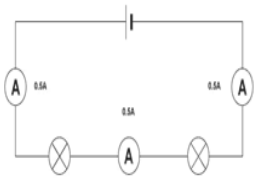
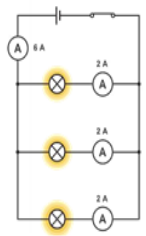
Topic 1- Positive and negative number	Topic 2 – Types of Angles	Topic 3 –Algebra Notation
Two like signs become a **positive sign** **+(+)** **−(−)** **Example** 3+(+2) = 3 + 2 = 5 6−(−3) = 6 + 3 = 9 Two unlike signs become a **negative sign** **+(−)** **−(+)** **Example** 7+(−2) = 7 − 2 = 5 8−(+2) = 8 − 2 = 6	There are different types of angles found on parallel lines. These are: Corresponding  Alternate  Interior  Vertically Opposite 	
https://www.mathsisfun.com/definitions/directed-number.html	https://www.mathsgenie.co.uk/angles-parallel.html	https://corbettmaths.com/2013/03/13/algebraic-notation/

SCIENCE

Photosynthesis, Reactions of Metals and Electrical Circuits.

Year 8

Term 1

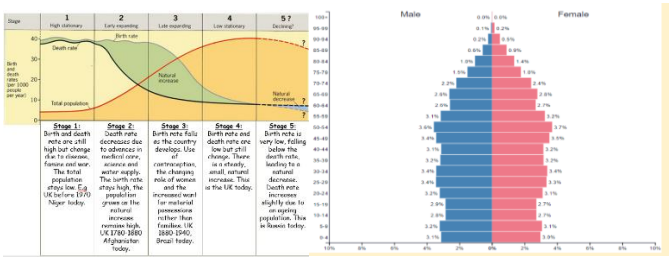
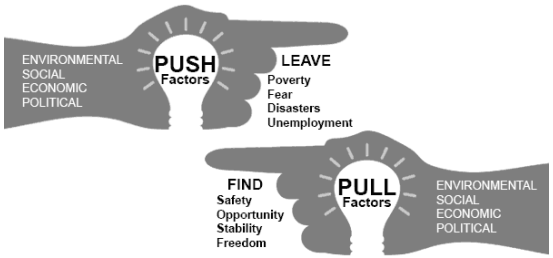
Topic 1 - Photosynthesis	**Topic 2 - Reactions of Metals**	**Topic 3 - Electrical circuits**
The equation for photosynthesis is below carbon dioxide + water $\xrightarrow{\text{light}}$ glucose + oxygen **The Rate Of Photosynthesis.** The following factors affect the rate of photosynthesis: **Temperature**: because all chemical reactions speed up as the temperature increases. However, as photosynthesis is controlled by enzymes, too high a temperature prevents photosynthesis **Carbon dioxide concentration**: the higher the concentration of CO_2 in the air, the more is available for photosynthesis, so the rate of photosynthesis increases as concentration increases. **Light intensity**: as the equation shows, photosynthesis requires light energy. So, the higher the light intensity, the higher the rate of photosynthesis. **Amount of chlorophyll**: more chlorophyll means more light can be absorbed. Some leaves have pale parts, as you may have seen, due to a lack of chlorophyll. The rate of photosynthesis is obviously much lower in the pale parts compared to the deep green parts	When a metal reacts with water it produces a metal hydroxide and **hydrogen gas.** The more reactive the metal is**,** the more vigorous the reaction. For example: **Lithium + Water → Lithium Hydroxide + Hydrogen** You see a similar pattern for the reaction between metals and acids however the products in these reactions are different, in this case you will make a salt and water, the salt will depend on the type of acid that you have used. If hydrochloric acid is used the salt made will be a chloride. **Lithium + Hydrochloric Acid → Lithium Chloride + Water** If sulphuric acid is used the salt made will be a sulphate. **Lithium + Sulphuric Acid → Lithium sulphate + Water** If nitric acid is used the salt will be a nitrate**.** **Lithium + nitric Acid → Lithium nitrate + Water**	Components (like bulbs/lamps) can be arranged in series with each other OR in parallel with each other.  These two lamps are in **series** with each other  These two lamps are in **parallel** with each other **Current in series and parallel** In a circuit with only **one loop**, so all components are in **series**, the current is the same through every part of the circuit.  If a circuit includes components on different loops (in **parallel**), the current splits at the junctions in the circuit. The total current in all the separate loops adds up to the current before or after the split, as the diagram shows. 
https://www.bbc.com/bitesize/guides/zpwmxnb/revision/1	https://www.youtube.com/watch?v=SEI0sbTNWvg	https://www.bbc.com/bitesize/guides/zsfgr82/revision/4

Geography

One planet, many people: How are populations changing?

Year 8

Term 1

Topic 1: How have populations changed?	**Topic 2: Describing population structures.**	**Topic 3: Why do people migrate?**
The world population has changed over time. There has been a 'population explosion' since 1800. This causes: • Strain on natural resources • Ageing population • Higher medical costs • More cost to the tax payer The world population changed like this: **First slowly, then fast.** Why? **Mostly due to advances in medical care, industrialisation and education.**	We can use different methods to describe a population. We can use a **Demographic Transition Model** which describes how a population has changed in 5 stages. We can also use a **Population Pyramid.** These look at gender, population percentage and age See below: 	People choose to migrate to different places for many different reasons. These can be categorised into **push** and **pull factors.**  Governments and international organisations are currently dealing with crisis' relating to migration. This is due to increasing levels of unrest, war and poverty in many places in Africa and the Middle East.
http://www.worldometers.info/world-population/	https://www.populationpyramid.net/	https://www.youtube.com/watch?v=RvOnXh3NN9w

HISTORY

The Industrial Revolution

Year 8

Term 1

Topic 1: What was the Industrial Revolution?	**Topic 2: Coal, iron and factory reform**	**Topic 3: Transport**
The Industrial Revolution started in Britain during the 18th Century and was the process of the country moving from an agricultural (farming) to an industrial (factories) society.  The population of the country during this time dramatically increased. This was due to a large increase in births and decrease in deaths. People started to move out of the countryside and into towns where they could find work in factories.	Coal began to be used much more during the industrial revolution to power factories, as well as being used in the home for cooking and heating. This meant that it became harder and harder to mine from underground. Mines had to be much deeper underground and this made the job lots more dangerous. Because it meant working in such a small space, small children were used by mine owners. Another use of coal was in the production or iron. This also became vital during the industrial revolution. Iron had many uses, domestic, agricultural and industrial. Rich industrialists and factory owners wanted to become as rich as possible. As a result, they often employed children, paid them poorly and treated them badly. Fortunately, during the 1800s, 'reformers' persuaded the government to pass laws to improve conditions for factory workers.	During the industrial revolution, transport needed to develop as materials and goods needed to be moved in and out of factories. One way in which this was improved was better roads. 'Turnpike Trusts' were established to look after sections of road. Canals were a brilliant way to deliver heavy objects that could not be pulled by horses. They also moved fragile goods safely. However, it was a slow method of transport and canals could freeze in winter. The biggest advancement in transport during the IR was trains. Steam engines were used to power them and the most famous train builder of all was George Stephenson. Trains were a fast and safe and could pull very heavy loads. They also changed the lives of ordinary people who could now afford to travel across the country.
https://www.bbc.com/bitesize/guides/zvmv4wx/revision/2 http://www.youtube.com/watch?v=4As0e4de-rI	https://www.english-online.at/history/industrial-revolution/industrial-revolution-manufacturing.htm	https://www.bbc.com/bitesize/guides/zvmv4wx/revision/8

MFL
Vocabulary

Year 8
Term 1

Topic 1: Descriptions		**Topic 2: Family and jobs**		**Topic 3: Where I live, weather and activities**	
Grand(e)	Big, tall	Mon père/ mon beau-père	My father/ my stepfather	Le nord, le sud	The north, the south
Petit(e)	Small	Ma mère / ma belle-mère	My mother/ my stepmother	L'est, l'ouest	The east, the west
Les cheveux	Hair	Mon frère/ mon demi-frère	My brother/ my stepfather	L'Angleterre	England
Les yeux	Eyes	Ma soeur/ ma demi-soeur	My sister/ my stepsister	L'Écosse	Scotland
Les cheveux blonds	Blonde hair	Mon grand-père	My grandfather	L'Irlande du nord	Northern Ireland
Les cheveux bruns	Dark hair	Ma grand-mère	My grandmother	Le Pays de Galles	Wales
Les cheveux noirs	Black hair	Mon oncle	My uncle	La France	France
Les cheveux roux	Red hair	Ma tante	My aunt	Il fait chaud	It is hot
Les yeux bleus	Blue eyes	Mon cousin	My male cousin	Il fait froid	It is cold
Les yeux verts	Green eyes	Ma cousine	My female cousine	Il y a du vent	It is windy
Les yeux marron	Brown eyes	Coiffeur (coiffeuse)	A hairdresser	Il y a du brouillard	It is foggy
Les yeux gris	Grey eyes	Électricien (électricienne)	An electrician	Il y a du soleil	It is sunny
Actif(active)	Lively	Infirmier (infirmière)	A nurse	Il y a des orages	It is stormy
Amusant(e)	Funny	Mécanicien (mécanicienne)	A mechanic	Il neige	It snows
Intelligent(e)	Intelligent	Ouvrier (ouvrière)	A factory worker, labourer	Il pleut	It rains
Paresseux (paresseuse)	Lazy	Professeur	A teacher	On fait du skate	We go skateboarding
Sportif (sportive)	Sporty	Secrétaire	A secretary	On fait du vélo	We go cycling
Sympa	Kind	Serveur (serveuse)	A waiter/ waitress	On joue aux cartes	We play cards
Timide	Shy	Vendeur (vendeuse)	A shop assistant	On regarde la télé	We watch TV
Intéressant	Interesting	Un bureau	An office	On va au café	We go to the café
Je m'appelle…	My name is…	Je suis…	I am…	J'habite dans…	I live in…
J'habite à…	I live in…	Il/ elle est…	He/she is…	Je viens de…	I come from…
J'ai …ans	I am …years old	Je travaille dans…	I work in …	Il/ elle vient de…	He/ she comes from…
J'ai…	I have…	Il/ elle travaille dans…	He/she works in…	J'habite ici depuis…	I have lived here for…
Je suis…	I am…	Je/ il/elle travaille pas dans…	I do, he/she works in…	C'est (+ opinion)	It is (+ opinion)
https://www.bbc.com/bitesize/topics/zw8xpv4/resources/1		https://www.bbc.com/bitesize/topics/zk476sg/resources/1		https://www.bbc.com/bitesize/topics/zdkmhyc/resources/1	