MALTBYACADEMY

Student **Information**

Name	
Tutor Group	
House	
Address	
Emergency Contact	
Emergency Contact Number	

School **Day**

Tutor Time	8:30 – 9:00.
Period 1	9:00 -10:40.
Break	10:40 -10:55.
Period 2	10:55 – 12:35.
Lunch	12:35 -13:05.
Period 3	13:05 – 14:45.
Period 4 (Y11) / Enrichment	14:45 -15:35.

MALTBYACADEMY

OUR **CURRICULUM INTENT**

The Maltby Academy curriculum is designed, delivered and monitored with principles of knowledge and assessment at its core. The curriculum is aspirational and deliberately challenging and it never assumes that students cannot access complex material. Rather, it builds on the knowledge acquired in the primary phase and 'starts with the end in mind' by considering the skills, knowledge and character required for higher education and employment.

OUR CURRICULUM INTENTION IS TO:

Inspire imagination and develop interests/specialisms/key skills.

Provide appropriate challenge through access to complex material and concepts.

Provide equality and promote aspiration for all learners irrespective of starting point, learning needs, background and disposition.

Facilitate positive progression routes through the student's educational journey into sustainable further/higher education, training and employment.

Provide relevance to context and community to enable social and economic mobility.

Prepare children and young people to be successful learners for life, responsible citizens and confident individuals.

MALTBYLEARNINGTRUST
Exceptional Experiences, Successful Lives.

MALTBY ACADEMY

OUR **VISION**

Delivering exceptional learning experiences that enable all young people to thrive in a competitive world and lead successful and fulfilling lives.

OUR **KEY DRIVERS**

RESILIENCE

Learn from failures, work through problems and never give up. Be better today than you were yesterday.

ASPIRATION

Aim high and set yourself challenging goals both academically and personally. What does the future hold for you?

COMMUNITY

Accept support and offer it. Give something back to the Academy and the community.

RESPONSIBILITY

Be responsible for your actions, celebrate successes and learn from your failures. Do not make excuses.

CONFIDENCE

Don't be afraid to get things wrong. Believe in yourself and your abilities and step outside your comfort zone.

MALTBY LEARNING TRUST
Exceptional Experiences. Successful Lives.

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MALTBY ACADEMY

TEACHING & LEARNING
2022 - 2023

Investment in Learning

Our aim is for all students to be fully invested in their learning

	Attitude and Effort	Oracy	Homework	Response to Feedback
4. Fully Invested in Learning	• I am always punctual to lessons. • I am always fully equipped for learning. • I have a positive attitude towards my learning, 100% of the time. • I have high aspirations for myself. • I am always resilient in lessons. • I learn from my mistakes; I understand that they are vital in my progress. • I never receive warnings. • I always complete work to the highest standard, to the best of my ability, striving to challenge myself every lesson.	• I articulate myself confidently. • I actively take on any of the 6 Oracy roles during discussions, debates and when sharing ideas. • I express my opinions and ideas, without needing the sentence stems provided. • I work effectively in a variety of different Oracy groupings. • I apply accurate, subject-specific vocabulary in my contributions. • I always listen carefully to my peers and build on their ideas.	• I take responsibility for my homework and always complete it to a high standard. • I always hand in my homework on time. • If needed, I always seek support, well in advance of the deadline. • I often complete extra work and submit this work for feedback. • I always actively catch up on work that I miss due to authorised absence, so no gaps in my learning appear.	• I always proactively seek support on how to improve. • I always use my initiative and independent thinking skills to improve. • I am consistently willing to go back and improve my work, showing resilience. • I always engage with CTG activities in order to improve. • I always have a resilient attitude when mistakes are made. • I can ask important questions to help improve my work.
3. Engaged in Learning	• I am mostly punctual to lessons. • I am well equipped for learning most of the time. • I have a positive attitude towards my learning, almost all of the time. • I am mostly resilient in lessons. • I rarely receive warnings. • I complete work to a high standard and to the best of my ability.	• I articulate myself with growing confidence. • I take on most of the 6 roles during discussions, debates and when sharing ideas. • I express my opinions and ideas, sometimes without needing the sentence stems provided. • I work in different Oracy groupings. • I apply some subject-specific vocabulary to my contributions. • I mostly listen effectively to my peers and build on their ideas most of the time.	• I take responsibility for my homework and complete it. • I almost always hand in my homework on time, but sometimes need a reminder. • I rarely complete extra work and submit this work for feedback. • If absent from school, I usually catch up, meaning there are • sometimes gaps in my learning.	• I often seek support on how to improve. • I am willing to go back and improve my work most of the time, showing some resilience. • I mostly engage with CTG activities in order to improve. • I have a mostly resilient attitude when mistakes are made. • I ask questions to help improve my work.
2. Partially Engaged in Learning	• I am sometimes late to lessons. • I am not always equipped for learning. • I have a positive attitude most of the time. • I am sometimes passive in lessons. • I sometimes receive warnings. • I complete my work, but sometimes it is not to the best of my ability.	• I communicate clearly with my peers, but I am not always confident beyond that. • I take on some of the 6 roles during discussions, debates and when sharing ideas. • I can sometimes explain my opinions and ideas, but I need the sentence stems and need prompting. • I work well in some of the Oracy groupings. • I apply some subject-specific vocabulary to my contributions, but not always. • I sometimes listen effectively to my peers and occasionally attempt to build on their ideas.	• I complete homework most of the time. • I sometimes rush my homework because I am not yet in the habit of working independently. • I do not always hand in my homework on time and often need a reminder.	• I sometimes seek support, but I do not always make a quick start. • I sometimes need encouragement to go back and improve my work. • I sometimes engage with CTG activities in order to improve. • I do not always make the effort to avoid repeating mistakes and misconceptions. • I ask occasional questions about how to improve my work.
1. Disengaged from Learning	• I am rarely on time to lessons. • I am rarely equipped for learning. • I sometimes have a positive attitude towards my learning, but at times it is negative. • I am passive in lessons. • I often receive warnings, which sometimes results in removals. • I do not always complete work to the best of my ability.	• I sometimes communicate with my peers. • I do not take on any of the Oracy roles or participate in discussion. • I occasionally share opinions and ideas, when prompted, and I am working on justifying my ideas. • I cannot yet work in the Oracy groupings. • I cannot yet apply subject-specific vocabulary to my contributions. • I do not always listen carefully to my peers, consequently, I miss opportunities to build on their ideas.	• I am not yet in the habit of completing homework. • I do not ask for any help and support.	• I never seek support about how to improve. • I find it difficult to go back and improve my work. • I do not engage with CTG activities in order to improve. • I feel disheartened when I make mistakes and have not yet learnt to use mistakes as a tool to improve. • I do not ask any questions to help improve my work.

Your curriculum is organised into key themes and topics, which are delivered by highly qualified subject specific staff. **Assessment** takes many different forms.

- ✓ Low stakes recall and retrieval practice delivered through 'Sharp Starts'.
- ✓ Formative deep SPA assessments.
- ✓ Formal summative trial examinations (Y10/11).

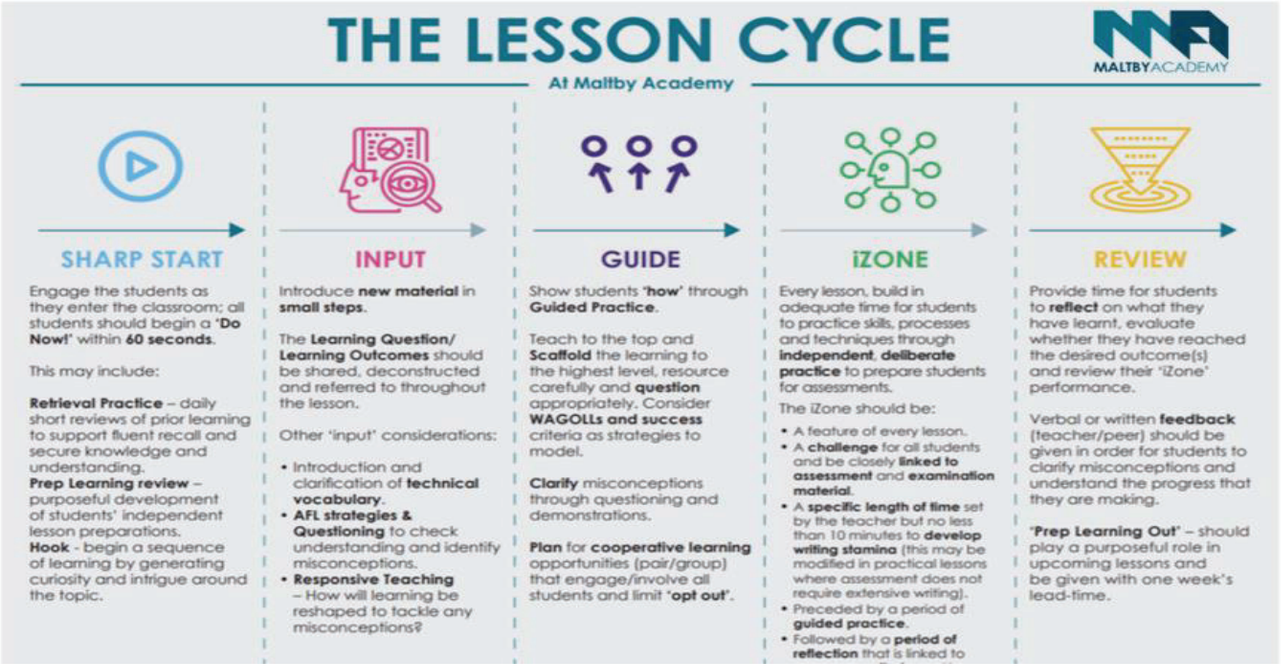
Testing is followed by a period of **CTG** (**Close the Gap**) activities, delivered through whole class or individual verbal and written feedback. Each department has externally trained examination markers designed to support you in the best way possible in Key Stage 4.

The delivery of your subject curriculum is based on external research; tried and tested techniques, which promote a love of learning, develop long term memory and reduce cognitive load (thinking!).

In order to master the specific elements of 'Principles of Instruction', learning experiences are shaped and delivered consistently across the Academy through the 'Lesson Cycle'.

The **Maltby Academy Lesson Cycle** is underpinned by Barrack Rosenshine's 'Principles of Instruction' and it is the medium to deliver our new and updated curriculum.

If you have any questions about the lesson content or delivery itself, you will always be best speaking to your class teacher to clarify any misconceptions with your work – they are the experts and are here to help you every day at Maltby Academy!



MALTBYACADEMY

BEHAVIOUR & REWARDS
2022 - 2023

Investment **In Learning**

Your investment in learning is shared, insisted upon and assessed according to the Investment in Learning criteria. Teaching staff assess a student's 'can do attitude' and their commitment to learning. If there are concerns in the lesson, or over time, the following sanctions will be employed:

- Staff will log warnings 1-3 on the Class Charts system and mark warnings on the warning board in the classroom.
- Students are removed for '**failing classroom expectations'** and getting four warnings.
- Staff will receive a member of staff on–call at their classroom to park the student into a park room away from the lesson.
- Students may also be on-called for **'pastoral support'**. This may happen in between lesson and at social times, where the member of staff is requesting follow-up work to be conducted by the pastoral team.

Detentions

Students will be given a 30-minute detention after school on the day they misbehave. We will notify parents/carers via communication on the MyEd App and Class Charts App. Students can be issued a detention for, but not inclusive, of the following:

- Being late to school.
- Being late to lesson.
- Being removed from a lesson.
- Failing to follow an instruction from staff.
- Unruly behaviour.
- Littering.
- Inappropriate language.
- Failure to meet Academy expectations.

A one-hour SLT detention will also be held on a Friday each week for failing to attend a 30-minute detention.

Internal **Suspensions**

Maltby Academy has a separate Internal Suspension room, where students will usually work for one to two days and have separate lunch breaks. The timings of these days are from 8.30am to 3.00pm.

Internal Suspensions serve to isolate the student from the mainstream learning environment, ensuring they reflect on their actions and reduce the need to issue fixed-term exclusions.

Students reflect on behaviour and are supported with strategies to avoid removal from lessons. Internal Suspensions are coordinated by the Pastoral Support Worker who records Internal Suspensions on Class Charts and contacts subject teams, tutors and parents/carers.

Suspensions

The Suspension Policy is a system that helps the Academy to:

- Encourage and promote acceptable behaviour and attitudes to learning and enforce a suspension in line with Government guidance.

- To ensure that a suspension is only given for a serious incident and that the process leading to the suspension is thorough, lawful, reasonable, and fair in accordance with the DfE guidance.

The aim of the Academy is to avoid permanent exclusions wherever possible, but it retains the right to consider this for extremely disruptive behaviour, anti-social or dangerous behaviour and persistent disruptive behaviour, where a student consistently shows no regard for the ethos or rules of the Academy. A permanent exclusion can also be issued for a serious one-off incident.

Rewards and **Recognition**

Rewards systems at Maltby Academy link into a variety of different standards and expectations – some of these are the following:

- Upholding or demonstrating the Academy Key Drivers: Resilience, Aspiration, Responsibility, Confidence and Community.
- Attainment.
- Developing solid character traits.
- Debating Votes for Schools topics in a confident and diplomatic way.
- Demonstrating Student Leadership.
- Progress/attainment/Investment in Learning.
- Excellent standards of behaviour.

- Excellent attendance and punctuality.
- Caring for others.
- Participation in extra-curricular activities and in class discussion using oracy skills.
- Positive attitudes and enthusiasm.
- Respectful behaviour.

End of Term and **Year Rewards Assemblies**

Recognition and rewards are celebrated at every opportunity. Several assemblies will have an element of praise and reward included, for example:

- Shout Outs.
- Reward for individual 100% attendance.
- Certificates and rewards for most House Points.
- House Awards, Student Achievement Leader Awards, Character Awards.

Students gain House Points in their lessons for demonstrating the core values highlighted above. Students can also gain recognition for going above and beyond by their year teams.

The Rewards Menu has been developed to help recognise achievement and students reaching a specific tariff can choose from the menu options. Every half term there is an opportunity to attend a Golden or Silver Ticket event. Students will reach this by achieving a net number of positive points every half term. Students also can earn certificates for their attendance, Key Driver behaviours, as well as the opportunity to attend an Awards evening, where students upholding the Academy values are invited, with their parents/carers to receive special recognition.

REWARDS **MENU 2022-23**

	Student Top Prize	House Prizes	Pastoral - End of Term Rewards Assembly	Character Awards Evening
HT1	**Golden Ticket Event Autumn 1**	House Prizes vary throughout the year. Tutors and the House Coordinator will publicise the prizes at the start of each term.	Attendance, House Awards, SAL Award, Tutor Awards, Key Driver Awards.	**Character Awards (Y7-11)** Resilience Aspiration Community Responsibility Confidence Leadership
HT2	**Golden Ticket Event Autumn 2**			
HT3	**Golden Ticket Event Spring 1**		Attendance, House Awards, SAL Award, Tutor Awards, Key Driver Awards.	**Character Awards (Y7-11)** Resilience Aspiration Community Responsibility Confidence Leadership
HT4	**Golden Ticket Event Spring 2**			
HT5	**Golden Ticket Event Summer 1**		Attendance, House Awards, SAL Award, Tutor Awards, Key Driver Awards.	**Character Awards (Y7-11)** Resilience Aspiration Community Responsibility Confidence Leadership
HT6	**Golden Ticket Event Summer 2**			

All Golden Ticket events throughout the year will vary. These are usually dependent upon the weather conditions and numbers accessing the golden tickets.

Maltby Stars

The Maltby Stars programme has been established to celebrate the students who consistently attend school, behave, and do their best. Each half term we hold an awards ceremony that will award students with a Bronze, Silver or Gold badge in recognition of their hard work, commitment and going above and beyond across the Academy.

Throughout the school year, students will work towards signing off key components that are linked to the Academy's Key Drivers:

- Resilience
- Community
- Aspiration
- Confidence
- Responsibility

Within these Key Drivers, we will be setting targets and tasks based around:

- Attendance
- Achievement Points
- Taking part in school events and representing the Academy
- Leadership and public speaking

To receive a badge of Bronze, Silver or Gold, students need to meet the criteria, and have this signed off by a member of staff, for each Key Driver.

Maltby Stars

Focus	Action	Sign Off
Resilience	BRONZE: 95%+ Attendance over half a term with minimal late marks	
	SILVER: 95%+ Attendance over two half terms with minimal late marks.	
	GOLD: 97%+ Attendance over two terms with minimal late marks.	
Community	BRONZE: Helped a member of staff around the school.	
	SILVER: Taken part in a Litter Pick.	
	GOLD: Helped deliver hampers or took part in some form of charity fundraising.	
Aspiration	BRONZE: Over 50 NET achievement points.	
	SILVER: Over 100 NET achievement points.	
	GOLD: Over 150 NET achievement points.	
Confidence	BRONZE: Represented the Academy.	
	SILVER: Regularly representing the Academy.	
	GOLD: Completed some form of public speaking.	
Responsibility	BRONZE: Attended regular enrichment events.	
	SILVER: Helped at a School Event.	
	GOLD: Taken on a leadership position within the school.	

UNIFORM **EXPECTATIONS**

Jumper: Black V-neck jumper with the Academy logo (optional item).

Shirt: Plain white formal collared shirt buttoned to the neck (long or short sleeved) and worn tucked in all times.

Trousers: Plain black tailored/smart dress type trousers (denim/jean or jean style, skinny, drainpipe, hipster, bootleg or combat style trousers are not allowed). Trousers must not have any studs, chains, visible zips or tassels attached and should not be tight fitting at the ankle. Trousers must have tailored internal pockets.

Skirt: Plain black, Maltby Academy knee length skirt.

Belt: Plain black (large and/or coloured belts or buckles are not allowed).

Socks: Plain black, full length.

Tights: Plain black tights (40 denier) with skirts.

Shoes: Plain black (trainers, boots, pumps or canvas footwear and shoes with metal additions, large bows and tassels etc. are not allowed, please see parental guidance sheet for visual).

Lanyard: Student ID lanyards are to be worn throughout the day, with the exception of during practical PE sessions.

Tie: Maltby Academy tie, in students' House colours.

House Badge: The House Badge is to be worn on the left upper lapel of the blazer at all times. No other badges will be permitted.

Bag: Suitable for carrying resources, including PE Kit.

Where students attend the Academy failing to meet the uniform expectations, they will be provided with appropriate uniform. Should students refuse this, appropriate consequences will be issued.

UNIFORM **EXPECTATIONS**

Hairstyles

Must always be reasonable and tidy, bright colours as a result of dye or spray, marked contrast in hair length or colour are not acceptable; neither are extreme styles such as close shaves (e.g. Mohican styles or lines/patterns).

Long hair should be tied back in any practical situations, such as Physical Education, Dance, Drama, Science and Technology or at the discretion of staff. A small, plain black hair slide, band, clip or 'bobble 'is acceptable.

Jewellery

The only item of jewellery permitted is a watch. This item must be removed for practical activities. No jewellery is permitted including earrings, spacer piercing retainers or tongue piercings. Any of these items will be confiscated immediately, placed in an envelope, and students will be able to collect these at the end of the school day. Where students are repeatedly non-compliant, their parents/carers will be asked to collect the items at the end of the school day or at their earliest convenience.

Make Up

Make-up should not be noticeable and should always be natural looking and discreet. Dark highlighted eyebrows, bright coloured lipstick, fake tan, painted nails, nail extensions, gel nails and false eyelashes are not allowed to be worn under any circumstances.

Clothing Inside the Academy

Only the Academy uniform is allowed to be worn inside the building. Shirts must be tucked in and buttoned to the top at all times. Open neck shirts are not acceptable. Ties should be worn at all times. Coats/hoodies should be removed on entry to the Academy. Sleeves on blazers, shirts, Physical Education kit and trouser legs, should not be rolled up at any time unless permission is given by a member of staff.

Personal Property

Any digital or electronic device that can be used for games, photography, music or recording images are brought at owner's risk and should be kept in the students' bag. They should NOT be seen or heard on Academy premises at any time. No mobile phone or electronic devices should be visible, switched on or used during the Academy day. If it is seen it will be confiscated and only returned to a parent/carer.

Basic Equipment

Academy Planner, 1 black, 1 red and 1 green pen, 2 pencils, a ruler, a rubber, a scientific calculator, a clear pencil case.

UNIFORM **EXPECTATIONS**

Physical Education

All students are expected to participate in PE. Suitable PE kit should be brought to every lesson. PE kits are available from Pinders to purchase. Students not participating in PE/Dance will still be required to take part in the lesson in a non-practical way such as a coach or umpire, they are required to bring a medical note to explain why they are medically excused from PE. However, they are still expected to change into their PE kit. Should students refuse to change they will be removed from the lesson and given an appropriate consequence.

- MA polo shirt.
- MA hooded top (outdoor).
- Black tracksuit bottoms/leggings/shorts/skirt.
- Black football socks (outdoor).
- Black sports socks.
- Trainers.
- Football boots for football and rugby.
- Shin pads for football and hockey.

MALTBYACADEMY

HOUSE SYSTEM
2022 - 2023

THE **HOUSE SYSTEM**

The House System is in place for our students to be part of a **community** and take **responsibility** for its activities. We have four Houses, each with their own colour, history and heraldry. These are: **Barts**, **Bede**, **Rolleston**, and **York**.
Your House **community** will **aspire** to work together, achieving success and reconciling failure. You will show **confidence** and **resilience** by taking part in House competitions and can give back to the wider **community** by raising money and awareness for a chosen, local charity. As part of your House, you are expected, and encouraged, to be **aspirational** in seeking out new opportunities for personal development. This means learning about the needs of your House and charity and taking **responsibility** for organising and partaking in events, which will better self, House, House charity and school.
You will have your House colour on your tie and a lapel badge. Your House is your team, and this provides a sense of **community**. House Senate members will have a distinct tie and badge to make them visible and set them apart from other House members.

HOUSE SENATE

Students can enhance their leadership skills and community values through the House Senate. Leaders will be elected through a democratic process during Votes for Schools. All Senate members will receive training and gain a recognised qualification for this, providing skills that will transfer into future employment/endeavours.
The House Senate will take a lead role in organising House events, updating social media and House displays, shortlisting and publicising potential House charities, and then communicating with the House's selected charity. The House Senate will be supported by Year 12 mentors who will give advice on how to communicate with the chosen charity, as well as aiding in the organisation of House events.
It is crucial that there is something for every student to be involved in, as such it is the **responsibility** of Senate members, as well as staff, to ensure feedback is collected from students who are not yet engaged so that improvements may be made.
We aim to develop Senate members who are **confident** enough to stand up in the end of term House assemblies and present awards to outstanding House members. In short, the House Senate programme aims to develop students that truly embody all of the **Maltby Academy Key Drivers.**

HOUSE EVENTS & CHALLENGES

Each term, subject areas will host a House competition/event (each lasting one week) based on the broader curriculum of that subject, the values of the school or **community**, seeking **aspirational** opportunities for personal development, or simply something fun that enhances team spirit. These events will earn participants House points contributing to end of term House awards. During these weeks there may be additional House point incentives corresponding to the associated Key Driver of the House event, e.g., '*litter-picking week – double points for **responsibility**!*' The House Senates will be **responsible** for keeping their House informed and driving participation for these events.
There will also be a House challenge set each half term where students can earn extra House points for embodying the Maltby Academy vision, e.g. learning something interesting about an extra-curricular topic and sharing this with member of their form. These challenges will be specifically aimed to push students in each of the **Maltby Academy Key Drivers**.

THE **HOUSE SYSTEM**

CHARITIES
Each House will choose a charity that they will support for the year. These will be shortlisted by the Senate and then voted in by the whole House during Votes for Schools sessions. Whilst the House Senate will take an important role in ensuring charity events take place to raise money for House charities, all students should communicate with the senate so that their ideas can be discussed in House meetings. House charities are incredibly important in ensuring that Maltby Academy maintains close community affiliations.

HOUSE HISTORY
The Maltby House System was established when Maltby Grammar was founded in 1931. The bold and modern shields, representing the four houses, are predated by the badges found on the old school emblem, each symbolic of something important to the Maltby community. These were:

The white rose of York, symbolising courage, was worn by soldiers and represents the county in which our school lies.

The Saxon tower of St Barts church, symbolising strength, was a place of community gathering for worship and other activities and represents protection to the Maltby community.

The open book of Bede, symbolising the power of the written word, represents the Venerable Bede who spent much of his life in local monasteries. Bede believed that ancient wisdom could be passed on through the study of important texts.

The Gryphon of the Rolleston family, symbolising the guardian of secret knowledge, was part of the Rolleston family coat of arms. The Rolleston's have many associations with Maltby, to Rolleston house members, the Gryphon is a reminder that knowledge is precious and hard earned.

MALTBYACADEMY

LITERARY & ORACY SUPPORT MATERIALS

2022 - 2023

EXTENDED WRITING TOOLKIT

EXAMPLES

- For example …
- For instance …
- Such as …
- … as can be seen
- … as is shown by
- Take the case of …
- This can be proven by

CONTRASTING

- However, …
- On the other hand …
- … although …
- Despite this …
- On the contrary …
- As for …
- … whereas …
- … while …

CONCESSION

- Although …
- While it is true that …
- Despite the fact that …
- In spite of …
- Despite this …
- However … yet …
- Still …
- Nevertheless …

TRACKING

- At the beginning of the text...
- Continuing through the text...
- Later in the text...
- Further on in the text...
- Towards the end of the text...

LISTING POINTS

- Firstly, secondly, finally …
- To begin with …
- On top of this …
- In addition to this …
- More importantly …
- Addition …
- … and …
- … also …
- … as well …
- Furthermore …
- Another …
- Not only … but also …

SUMMING UP

- In conclusion …
- In summary …
- To sum up …
- Overall …
- On the whole …
- In short …
- In brief …
- To conclude …
- So, to round off …

- Remember the **T**ype, **A**udience and **P**urpose of your writing e.g., if you are comparing different texts or ideas, make sure you use **connectives** from the 'contrasting' box.
- Write a **clear introduction** to tell the reader what you are writing about.
- Start each paragraph with a **topic sentence**.
- **Vary the length of your sentences** to make your writing clear.
- Explain your views **clearly** to the reader.
- Remember to **develop** the points you make.
- Pull together your writing with a thoughtful conclusion – this should be a **short summary** of your **main points**.

CAUSE AND EFFECT

- … so …
- As a result of …
- … because …
- This means that …
- Due to the fact that …
- … due to …
- … therefore …
- … caused …
- This caused …

CHANGING THE TOPIC

- Turning to …
- As regards …
- With regard to …
- Concerning …
- As far as … is concerned …
- Moving on to …
- Now to consider …
- By contrast …

COMPARISON

- Compared with …
- Similarly …
- In the same way …
- Likewise …
- Equally …
- As with …
- … are similar in that …

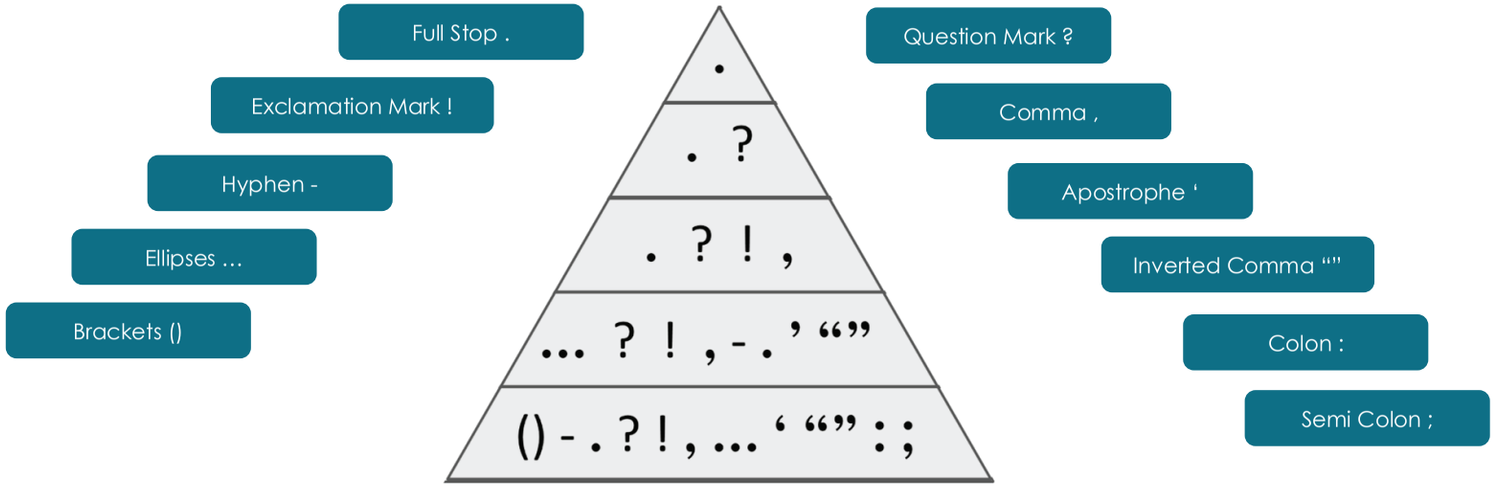
EMPHASISING

- Mainly …
- Mostly …
- Usually …
- Unfortunately …
- Most often …

RE-PHRASING

- In other words …
- That is …
- To put it more simply …

PUNCTUATION TRIANGLE



STANDARDS FOR WRITING

1. Write in full sentences.
- A capital letter at the beginning.
- A clear full stop at the end.

2. Spell key words correctly.

3. Make sure that writing does not sound like you are talking or texting.

Remember the difference between the following:
- Was and were. E.g. I was walking. / They were walking.
- There, their and they're. E.g. There are three girls. Their sister is 11. They're not staying.
- Were and where. E.g. Where were they going yesterday? Were you going to?

4. Structure your writing clearly. Write in paragraphs – you need a new paragraph when you move onto a new subject or topic.

LITERACY TRIANGLE

OPENERS:
The, My, I , First, Then, Next, Suddenly, Angrily, As, When, While, Just then, As soon as, Unbelievably, Much to my surprise, To begin, In addition…

Verb
A doing word.

Noun – Naming Words
Abstract – Feeling
Collective – Group
Common – Things
Proper - Names

Metaphor
When an object is described as another.

Adjective
Describing words.

Pronoun
A word that can be used instead of a noun. E.g. he, she and they.

Subject
The topic of a sentence.

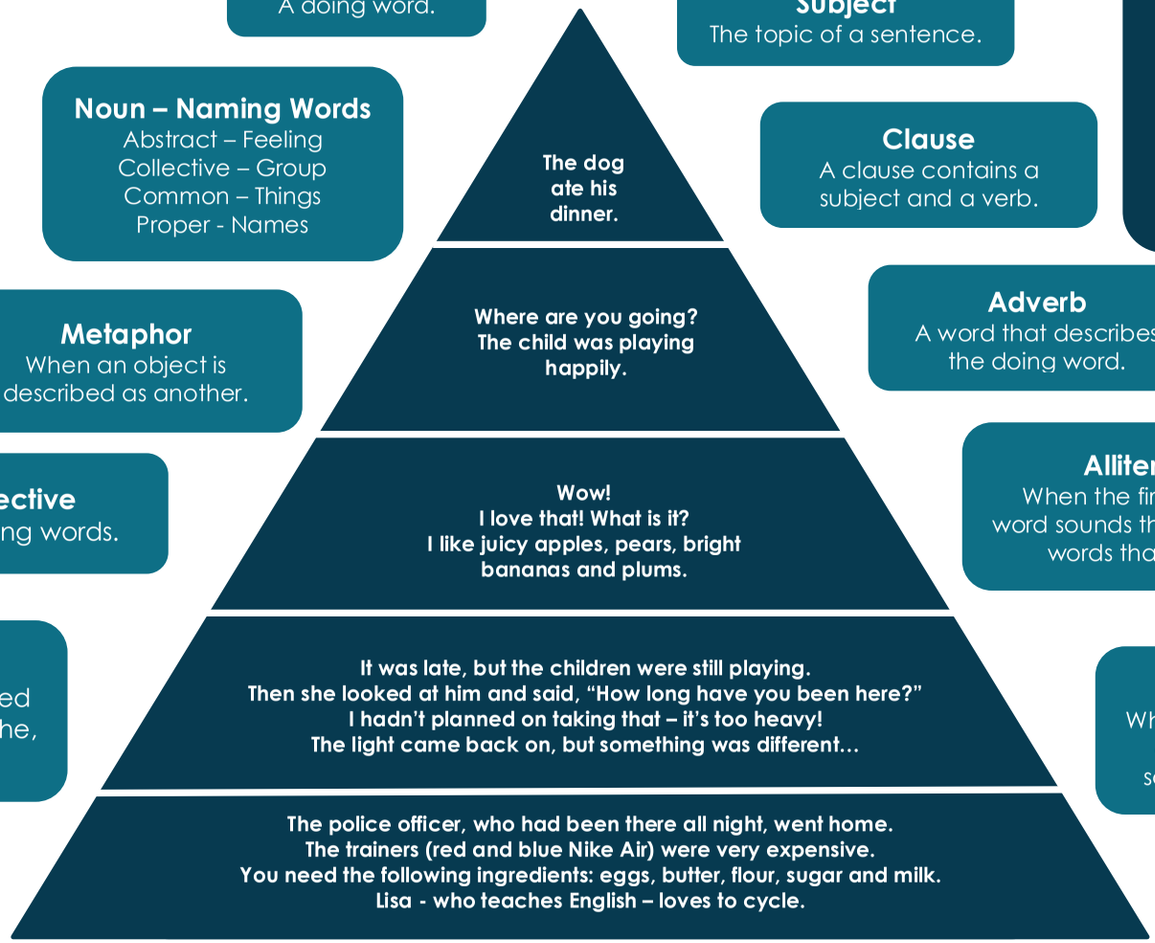
Clause
A clause contains a subject and a verb.

Adverb
A word that describes the doing word.

Alliteration
When the first letter of a word sounds the same as the words that follow it.

Similes
When something is compared to something else.

CONNECTIVES:
And, but, so, because, if, when, while, after, nevertheless, as well as, also, however, therefore, in order to, furthermore, although, meanwhile, alternatively, before long, despite this…



READING ROLES

During **reading activities**, you may be asked to take on the following roles.
Consider the **'I can'** statements when taking on these roles.

VISUALISER

Visualise the text:
I can identify the clues I've been given.
I can use these clues to make a prediction about the text.

DETERMINER

Determine important ideas:
I can identify the most important events.
I can identify why these are the most important.
I can identify the writer's overall viewpoint.

QUESTIONER

Create questions:
I can identify areas I don't understand.
I can pose questions around these areas of a text.
I can ask questions to prompt deeper readings.

CONSOLIDATOR

Consolidate key information:
I can identify what happens in the text.
I can rewrite these events, in note form.
I can summarise what the text is about.

CONNECTOR

Make connections:
I can link this text to other texts I have read.
I can link this text to the real world.
I can link this text to my own experiences.

INFERRER

Infer implicit ideas:
I can understand how specific words are used.
I can understand deeper meanings of the text.
I can understand why the writer wrote the piece.

"Reading is important. If you know how to read then the whole world opens up to you."

STRUCTURED TALK

In group discussions, you will take on one of these six roles.
Use the sentence stems to help you succeed in your role.

CLARIFIER

Will say:
- What do you mean when you say…?
- Can you explain a bit more about…?
- Does that mean…?
- Please can you clarify what you meant by…?

QUESTIONER

Will say:
- What do you think would be the effect of…?
- Why do you think…?
- Can you provide an example to support what you are saying?

BUILDER

Will say:
- I agree, and would like to add…
- Building on that idea, I think…
- Linking to what X said, I think…

CATALYST

Will say:
- I would like to start by saying…
- I think we should consider…
- We haven't yet talked about…
- Let's also think about…

SUMMARISER

Will say:
- Overall, the main points were…
- The main ideas raised today were…
- Our discussion focused on…
- The three main things we talked about were…

CHALLENGER

Will say:
- I disagree with you because,,,
- You mentioned X, but what about…
- I understand your point of view, but have you thought about…?

MALTBYACADEMY

NUMERACY SUPPORT MATERIALS
2022 - 2023

TIMETABLES **GRID**

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

IMPORTANT **NUMBERS**

Prime Numbers **2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31**

Square Numbers **1, 4, 9, 16, 25, 36, 49, 64, 81, 100**

Cube Numbers **1, 8, 27, 64, 125, 216, 343, 512**

TELLING THE **TIME**

This clock shows the time 10:09, or 9 minutes past 10 o'clock. The short white hand points to the hours and the long orange hand points to just before the '2', which would be 10:10 because each large number is grouped into 5-minute periods.

We don't know if this is am (morning) or pm (afternoon), as this isn't a 24-hour clock.

On a 24-hour clock, this time could also be said as 22:09, which would be the same as 10:09pm.

Minutes	Talking about Time	Fraction
45	"Three quarters of an hour have passed".	45/60 = 3/4
30	"Half an hour has passed".	30/60 = 1/2
15	"A quarter of an hour has passed".	15/60 = 1/4

TIME **AND MONTHS**

In addition to a clock, there are other common measurements of time we need to know how to do calculations with:

Time Measurement	Units
60 seconds	1 minute
60 minutes	1 hour
24 hours	1 day
7 days	1 week
2 weeks	1 fortnight
4 weeks	1 month *
12 months	1 year
52 weeks	1 year
365 days	1 year
366 days	1 leap year
10 years	1 decade
100 years	1 century
1000 years	1 millennium

The months of the year have different amounts of days, as listed below.

Every 4 years, February has a 29th day – this is called a 'leap year'.

Months	Days
January	31
February	28
March	31
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31

MALTBYACADEMY

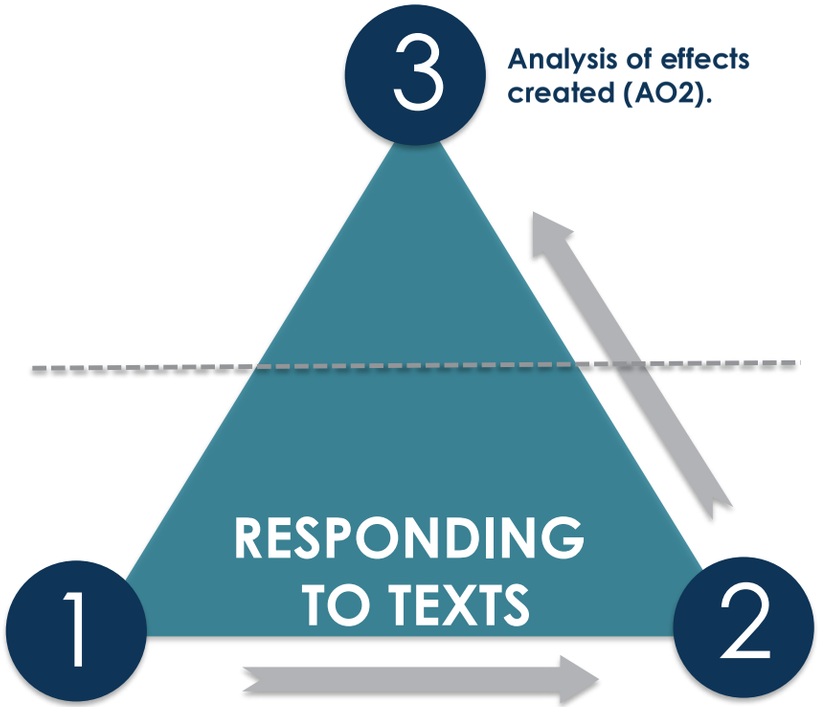
CORE SUBJECT SUPPORT MATERIALS

2022 - 2023

ENGLISH

RESPONDING TO TEXTS

	INTRODUCTION (AO1)	It could be argued….
1	**TRACKING TEXTUAL DETAIL** (AO1)	Firstly, the writer says: "…."
2	**RELEVANT TERMINOLOGY** (AO2)	The writer's use of… Specifically, the word "…" implies…
3	**ANALYSIS OF EFFECTS** (AO2)	suggests… Further, this could convey….



3 **Analysis of effects created (AO2).**

1 **Tracking textual detail (AO1).**

- Tracking across the text.
- Embedding textual detail.
- Short, snappy textual detail.

2 **Relevant use of terminology (AO2).**

or

Zooming in on specific words or phrases (AO2).

Writing about the effects of words, phrases, images and details:

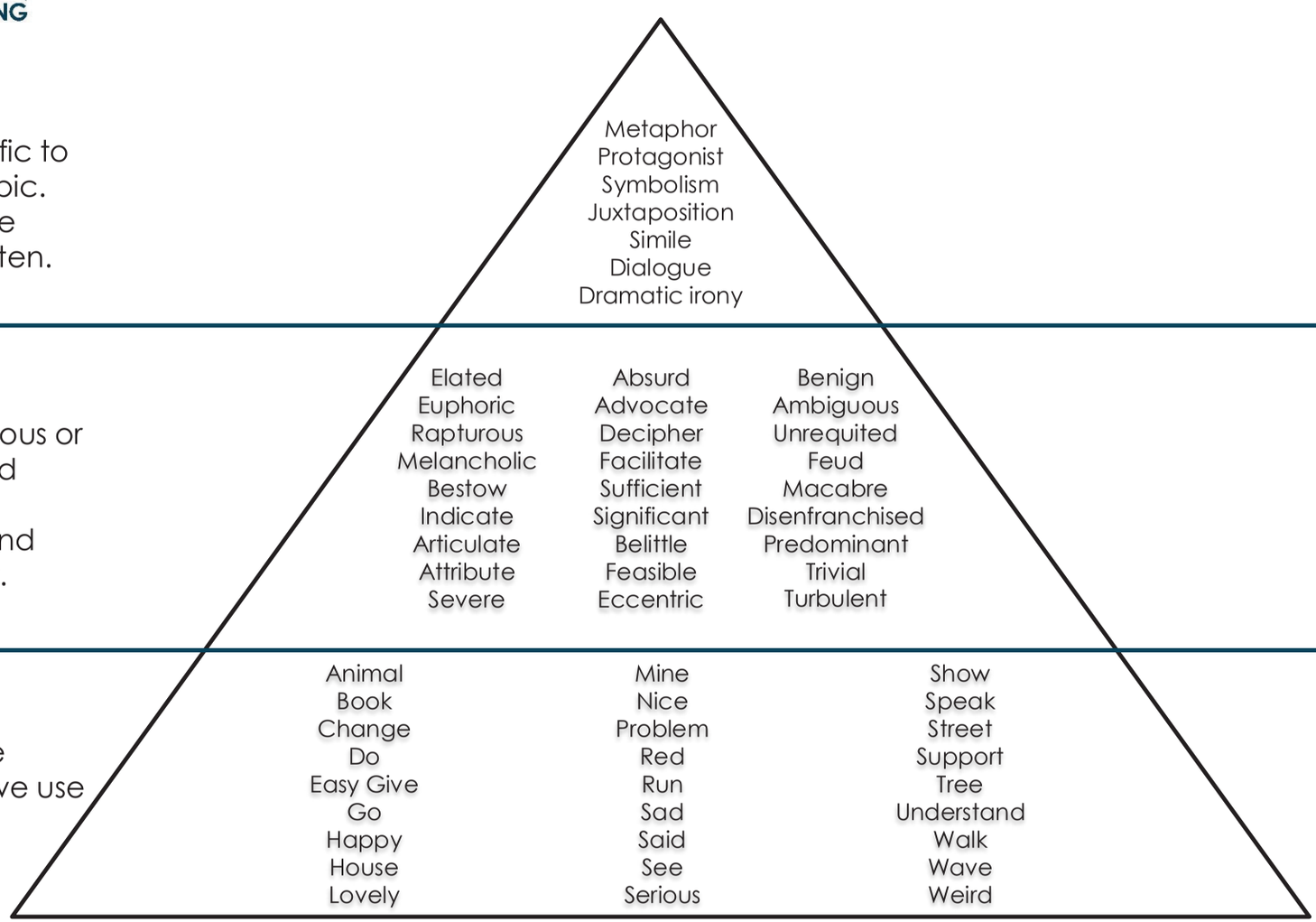
…suggests…
…evokes…
…implies…
…connotes…
…is symbolic of…
…sums up…
…reminds the reader of…
…draws attention to…
…emphasises…
…reinforces the sense that…
…contrasts with…
…prepares the reader for…
…creates a feeling of…

TIERED VOCABULARY

TIER 3
Words specific to a certain topic. We don't use these too often.

TIER 2
More ambitious or sophisticated vocabulary. Words beyond the ordinary.

TIER 1
Basic, simple words that we use every day.



"Reading is important. If you know how to read then the whole world opens up to you."

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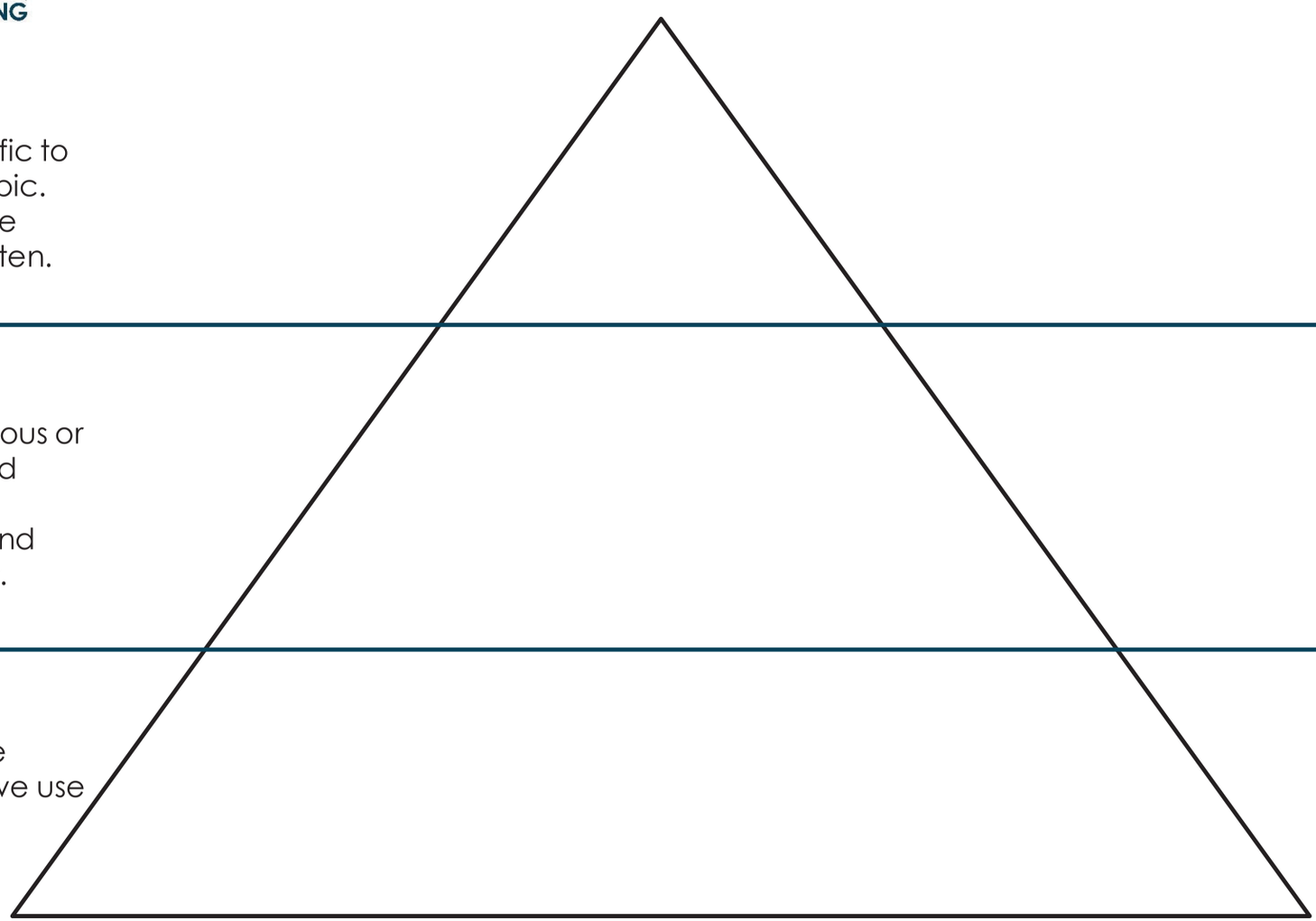

"Reading is important. If you know how to read then the whole world opens up to you."

Number - Higher

Topics	Clip Number	R	A	G
Calculating with roots and fractional indices	108, 109, 110			
Converting recurring decimals to fractions	53, 54			
Surds: Definition and estimating	111, 112			
Surds: Simplifying, multiplying and dividing	113, 114, 115			
Surds: Expanding brackets	116, 117			
Surds: Rationalising the denominator	118, 119			
Upper and lower bounds	137, 138, 139			
Error intervals	777			
Best buys	770			

Algebra - Higher

Topics	Clip Number	R	A	G
Substitution	784, 785, 786, 787			
Substitution: Equations of motion	788, 789			
Substitution: Important formulae	279			
Expanding triple brackets	166			
Expressions with algebraic fractions	172			
Linear equations with algebraic fractions	187			
Factorising quadratic expressions: ax^2+bx+c	225, 226, 227, 228			
Quadratic expressions: Algebraic fractions	229			
Quadratic expressions: Completing the square	235, 236, 237			
Quadratic equations: Factorising	231, 232, 233			
Quadratic equations: Quadratic formula	241, 242			
Quadratic equations: Completing the square	238, 239			
Quadratic equations: Algebraic fractions	244			
Quadratic equations in context	245			

Topics	Clip Number	R	A	G
Simultaneous equations: Quadratic/linear	246			
Manipulating powers	790, 791, 792, 793, 794, 795			
Exponential equations	796, 797, 798, 799			
Equation of a straight line: Perpendicular lines	215, 216			
Quadratic graphs: Turning points and discriminant	256, 243,258			
Simultaneous equations on graphs: Quadratic/ linear	259, 260			
Exponential graphs	302, 800, 801, 802, 803			
Exponential growth problems	804, 805, 806, 807			
Exponential decay problems	808, 809, 810, 811			
Trigonometric graphs	303, 304, 305, 306			
Graph transformations	307, 308, 309, 310, 311, 312, 313			
Speed-time graphs	881, 882, 883, 884, 885, 886			
Rate of change graphs	894, 895, 896			
Estimating gradient from a curve	887, 888, 889, 890			
Estimating area under a curve	891, 892, 893			
Equation of a circle	778, 779, 314, 315, 316, 317			
Circles and straight lines	318, 319, 320			
Linear inequalities as graph regions	273, 274, 275, 276			
Quadratic inequalities	277			
Function notation	288, 289			
Domain and range of functions	290, 291, 292			
Composite functions	293, 294			
Inverse functions	295, 296			
Functions: Problem solving	297			
Other sequences: Recurrence relations	262			
Quadratic sequences	247, 248, 249, 250			
Trial and improvement*	321			
Iteration and numerical methods	322, 323			
Proof and counter-examples	324			
Direct algebraic proof	325, 326, 327			

Geometry and measures - Higher

Topics	Clip Number	R	A	G
Congruence proofs	684, 685, 686, 687, 688, 689, 690			
Enlargements	646, 647			
Invariance	655			
Describe combined transformations	656, 657			
Circle theorems: Angles inside a circle	593, 594, 595, 596, 597			
Circle theorems: Tangents and chords	598, 599, 600, 601			
Circle theorems multi-step	603, 604, 605, 606			
Prove circle theorems	816, 817, 818, 819, 820			
Compound units: Density problem solving	730, 732, 733			
Volume of frustrums	578			
Volume: Problem solving	583			
Similar Shapes: Area	615, 616, 617			
Similar Shapes: Volume	618, 619, 620, 621			
Pythagoras' Theorem: Problem solving	503, 504			
Right-angled trigonometry: Non-calculator	306, 845, 846, 847, 848, 849, 850, 851, 852, 853			
Right-angled trigonometry: Problem solving	513, 514			
3D Pythagoras	505, 506, 507			
3D trigonometry	854, 855, 856, 857, 858, 859, 860, 861, 862, 863			
Sine rule for area	517, 518, 519			
Sine rule	521, 522, 523, 524, 525			
Cosine rule	527, 528, 529, 530			
Non-right-angled trigonometry: Problem solving	532, 533			
Bearings: Sine and cosine rule	531			
Vectors: Magnitude	627			
Vectors: Geometry problems	628, 629, 630, 631, 632, 633, 634, 635, 636			

Probability - Higher

Topics	Clip Number	R	A	G
Product rule for counting	671, 672, 673			
Conditional probability	364, 365, 366, 367, 389, 390			
Probability from Venn diagrams	385, 386, 387, 388, 391			
Experimental probability	357			
Independent events and probability trees	361, 362, 363			

Ratio, proportion and rates of change - Higher

Topics	Clip Number	R	A	G
Algebraic direct proportion	344, 345			
Algebraic inverse proportion	347			

Statistics - Higher

Topics	Clip Number	R	A	G
Quartiles and interquartile range	411, 412			
Mean from grouped frequency tables	418			
Averages problems	421			
Cumulative frequency diagrams	437, 438, 439			
Box plots	434, 435, 436, 440			
Frequency polygons	441			
Histograms	442, 443, 444, 445, 446, 447, 448, 449			
Capture-recapture	872, 873			
Types of data	392, 393			
Sampling	394, 395, 396, 397, 398			
Surveys	399, 400			
Time series	450, 451, 452			
Scatter graphs	453, 454			

Number - Everyone

Topics	Clip Number	R	A	G
Calculating with roots and indices	102, 103, 104, 105, 106, 107			
Repeated percentage change	91, 92			
Compound interest and depreciation	94, 95			
Error intervals	774, 775, 776			
Financial statements	758			
Best buys	768, 769, 771, 772			

Algebra - Everyone

Topics	Clip Number	R	A	G
Substitution	782, 783, 278			
Manipulating algebraic expressions	175			
Changing the subject	285, 286, 287			
Identities	154			
Expanding double brackets	162, 163, 164, 165			
Factorising quadratic expressions: x^2+bx+c	221, 223, 224			
Gradient	203, 204			
Equation of a straight line	208, 209, 210, 211, 212, 213			
Equation of a straight line: Parallel lines	214			
Distance-time and speed-time graphs	876, 877, 878, 879, 880			
Speed-time graphs	880			
Sketch graphs	898, 899, 900, 901			
Tariff graphs	897			
Quadratic graphs	252, 253, 254, 255			
Cubic graphs	298, 299			
Reciprocal graphs	300, 301			
Linear equations in one variable	184, 185, 186			
Quadratic equations	230, 234			
Simultaneous equations	190, 191, 192, 193, 194, 195			
Simultaneous equations on graphs	218, 219, 220			
Representing linear inequalities	265, 266, 267, 268			
Solving linear inequalities	269, 270, 271, 272			
Writing algebraic expressions and equations	151, 152, 153, 155			
Fibonacci sequences	263			
Geometric sequences	264			
Quadratic sequences	247			

Ratio and proportion - Everyone

Topics	Clip Number	R	A	G
Ratio problems	335, 336, 337, 338			
Scale drawings	870, 871			
Direct proportion	344, 345			
Inverse proportion	347			
Proportion graphs	348			

Geometry and measures - Everyone

Topics	Clip Number	R	A	G
Angle problems	488, 489, 490, 491			
Angles in polygons	565			
Constructions	660, 661, 662, 663, 664, 665, 666, 667, 668, 669			
Loci	674, 675, 676, 677, 678, 679			
Congruence criteria	682, 683			
Enlargements	644, 645			
Plans and elevations of 3D shapes	837, 838, 839, 840, 841, 842, 843, 844			
Conversion problems	714, 715			
Compound units: Speed	721, 722, 723			
Compound units: Density	725, 726, 727, 728, 729, 731			
Compound units: Pressure	734, 735, 736, 737			
Other compound units	738			
Bearings	496			
Circumference	537, 538			
Circle area	542, 543			
Surface area	587, 588, 589, 590, 591			
Volume	576, 577, 579, 580, 581, 582			
Arc length	544, 545			
Sector area	546, 547			
Pythagoras' theorem	497, 498, 499, 501, 502			
Trigonometry	508, 509, 510, 511, 512, 513, 514, 515			
Similar shapes	612, 613, 614			
Vectors	622, 623, 624, 625, 626			

Number – Foundation and Key Stage 3

Topics	Clip Number	R	A	G
Ordering positive integers	13, 14			
Ordering negative integers	37			
Ordering decimals	45, 46			
Ordering fractions	60			
Addition and subtraction of positive integers	18, 19, 20			
Multiplication and division of positive integers	21, 22, 23, 144, 145			
Addition and subtraction of negative integers	38, 39, 40, 41			
Multiplication and division of negative numbers	42, 43			
Addition and subtraction of decimals	47			
Multiplication and division of decimals	48, 49, 50, 51, 135, 136			
Addition and subtraction of fractions	65, 66			
Multiplication and division of fractions	67, 68, 69, 70, 71, 72			
Place value: multiplying and dividing by 10	15, 16			
Order of operations	24, 44, 120, 150			
Prime numbers, prime factorisation	28, 29, 30			
Factors, multiples, HCF and LCM	27, 31, 32, 33, 34			
Powers and roots	99, 100, 101			
Using standard form	121, 122, 123, 124			
Calculating with standard form	125, 126, 127, 128			
Converting decimals to/from fractions	52, 73, 74, 149			
Converting percentages to/from fractions	75, 76, 82, 149			
Converting percentages to/from decimals	55, 83			
Simplifying fractions	59, 61			
Mixed numbers and improper fractions	63, 64			
Fractions of amounts	62, 77			
Increasing/decreasing by fractions	78, 79			
Fraction problems	80			
Percentages of amounts	84, 85, 86, 87			
Percentage increase/decrease	88, 89, 90			
Percentage change	97			
Reverse percentages	96			
Simple interest	93			
Percentage problems	98			
Rounding	17, 56, 134			
Rounding to significant figures	130			
Estimating answers	129, 131, 132, 133			
Working with money	747, 748, 749, 750			
Money problems	752, 753, 754			
Financial statements	757			
Income and rates of pay	755, 756			
Profit and loss	759, 760, 761, 762			
Best buys	763, 764, 765, 766, 767			

Algebra – Foundation and Key Stage 3

Topics	Clip Number	R	A	G
Algebraic expressions	151, 152, 153			
Collecting like terms	156, 157			
Multiplying and dividing algebra	158, 159			
Substitution	155, 780, 781			
Algebra terminology	154			
Expanding brackets	160, 161			
Factorising expressions	167, 168, 169, 170, 171			
Index laws	173, 174			
Changing the subject	280, 281, 282, 283, 284			
Coordinates	199			
Midpoints	200			
Plotting straight line graphs	205, 206, 207			
Gradient	201, 202			
Distance-time graphs	874, 875			
Sketch quadratic graphs	251, 257			
Linear equations	176, 177, 178, 179, 180, 181, 182, 183, 188			
Linear equations on graphs	217			
Quadratic expressions	222			
Linear sequences	196, 197, 198			
Other sequences	261			

Ratio and proportion – Foundation and Key Stage 3

Topics	Clip Number	R	A	G
Scale diagrams	864, 865, 866, 867, 868			
Simplifying ratios	328, 329, 331			
Dividing in a ratio	332, 333, 334			
Fractions and ratio	330			
Direct proportion	339, 340, 341, 343			
Inverse proportion	342, 346			
Proportion graphs	348			
Recipes	739, 740, 741, 742			

Geometry and measures – Foundation and Key Stage 3

Topics	Clip Number	R	A	G
Geometric notation	456			
Points and lines	821			
Properties of 2D shapes	822, 823, 824, 825, 826, 827, 828			
Angle on a line	477, 478			
Complementary angles	815			
Angles around a point	812, 813, 814, 479			
Angles on parallel lines	481, 482, 483			
Angles in a triangle	484, 485, 486, 487			
Angles in polygons	560, 561, 562, 563			
Translations	637, 638			
Reflections	639, 640, 641			
Enlargements	642, 643			
Rotations	648, 649			
Describing transformations	650, 651, 652, 653			
Congruence	680, 681			
Properties of 3D shapes	829, 830, 831, 832			
Nets of 3D shapes	833, 834, 835, 836			
Metric units	691			
Units of measure: Length	692, 693, 694			
Units of measure: Mass	695, 696, 697			
Units of measure: Volume/capacity	698, 699, 702, 703, 704			
Units of measure: Time	709, 710, 711			
Units of measure: Area	700, 701			
Imperial units	705, 706			
Currency conversion	707, 708			
Conversion graphs	712, 713			
Compound units: Speed	716, 717, 718, 719, 720, 724			
Angles: Recognising and Estimating	455, 457			
Angles: Measuring and Drawing	458, 459, 460, 461			
Bearings	492, 493, 494, 495			
Calculating perimeter	549, 550, 551, 552			
Calculating area	554, 555, 556, 557, 558, 559			
Circles	592			
Circumference	534, 535, 536			
Circle area	539, 540, 541			
Surface area	584, 585, 586			
Volume of cuboids	568, 569			
Volume of prisms and cylinders	570, 571, 572, 573, 574, 575			
Similar shapes	608, 609, 610, 611			

Probability – Foundation and Key Stage 3

Topics	Clip Number	R	A	G
Probability scale	349, 350			
Probability of single events	351, 352, 353, 354			
Experimental probability	355, 356			
Multiple event probability	358, 359, 360			
Listing elements in a set	370, 371			
Venn diagrams	372, 373, 374, 375, 376, 377, 378, 379			
Probability from Venn diagrams	383, 384			
Frequency trees	368, 369			
Listing systematically	670			

Statistics – Foundation and Key Stage 3

Topics	Clip Number	R	A	G
Collecting data, frequency tables	401, 402, 403			
Two-way tables	422, 423, 424			
Bar charts	425			
Pictograms	426			
Pie charts	427, 428, 429			
Stem and leaf diagrams	430, 431, 432, 433			
Mode	404, 415			
Mean	405, 406, 407, 408, 417			
Median	409, 416			
Range	410, 414			
Choosing averages	413			
Averages problems	419, 420			
Scatter graphs	453, 454			

Student checklist for good hegartymaths homework	
1	**I always write the date, title, clip number and H/W for all my tasks.**
2	**I always watch the video before attempting the questions.**
3	**I always take full notes of all the examples modelled in the video.**
4	**I copy every question that I attempt in my book.**
5	**I show all my workings for every question in the quiz that I do.**
6	**I try to model my work the way I was shown in the video by Mr Hegarty.**
7	**I use a pencil and ruler for all diagrams.**
8	**I mark my work correct/incorrect as I go.**
9	**I write down corrections when hegartymaths tells me the correct answer.**
10	**I write down my score at the end of quiz.**

The Periodic Table of Elements

1	2											3	4	5	6	7	0
							1 **H** hydrogen 1										4 **He** helium 2
7 **Li** lithium 3	9 **Be** beryllium 4											11 **B** boron 5	12 **C** carbon 6	14 **N** nitrogen 7	16 **O** oxygen 8	19 **F** fluorine 9	20 **Ne** neon 10
23 **Na** sodium 11	24 **Mg** magnesium 12											27 **Al** aluminium 13	28 **Si** silicon 14	31 **P** phosphorus 15	32 **S** sulfur 16	35.5 **Cl** chlorine 17	40 **Ar** argon 18
39 **K** potassium 19	40 **Ca** calcium 20	45 **Sc** scandium 21	48 **Ti** titanium 22	51 **V** vanadium 23	52 **Cr** chromium 24	55 **Mn** manganese 25	56 **Fe** iron 26	59 **Co** cobalt 27	59 **Ni** nickel 28	63.5 **Cu** copper 29	65 **Zn** zinc 30	70 **Ga** gallium 31	73 **Ge** germanium 32	75 **As** arsenic 33	79 **Se** selenium 34	80 **Br** bromine 35	84 **Kr** krypton 36
85 **Rb** rubidium 37	88 **Sr** strontium 38	89 **Y** yttrium 39	91 **Zr** zirconium 40	93 **Nb** niobium 41	96 **Mo** molybdenum 42	[97] **Tc** technetium 43	101 **Ru** ruthenium 44	103 **Rh** rhodium 45	106 **Pd** palladium 46	108 **Ag** silver 47	112 **Cd** cadmium 48	115 **In** indium 49	119 **Sn** tin 50	122 **Sb** antimony 51	128 **Te** tellurium 52	127 **I** iodine 53	131 **Xe** xenon 54
133 **Cs** caesium 55	137 **Ba** barium 56	139 **La*** lanthanum 57	178 **Hf** hafnium 72	181 **Ta** tantalum 73	184 **W** tungsten 74	186 **Re** rhenium 75	190 **Os** osmium 76	192 **Ir** iridium 77	195 **Pt** platinum 78	197 **Au** gold 79	201 **Hg** mercury 80	204 **Tl** thallium 81	207 **Pb** lead 82	209 **Bi** bismuth 83	[209] **Po** polonium 84	[210] **At** astatine 85	[222] **Rn** radon 86
[223] **Fr** francium 87	[226] **Ra** radium 88	[227] **Ac*** actinium 89	[267] **Rf** rutherfordium 104	[270] **Db** dubnium 105	[269] **Sg** seaborgium 106	[270] **Bh** bohrium 107	[270] **Hs** hassium 108	[278] **Mt** meitnerium 109	[281] **Ds** darmstadtium 110	[281] **Rg** roentgenium 111	[285] **Cn** copernicium 112	[286] **Nh** nihonium 113	[289] **Fl** flerovium 114	[289] **Mc** moscovium 115	[293] **Lv** livermorium 116	[293] **Ts** tennessine 117	[294] **Og** oganesson 118

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

* The Lanthanides (atomic numbers 58 – 71) and the Actinides (atomic numbers 90 – 103) have been omitted.

Relative atomic masses for **Cu** and **Cl** have not been rounded to the nearest whole number.

AQA GCSE Trilogy Combined Science Equations

Unit 1: Energy

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

Unit 2: Electricity

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

Note: No equations for **Unit 4: Atomic Structure**

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 x specific heat capacity x temperature change	$\Delta E = mc\Delta\theta$
thermal energy for a change in state = mass x specific latent heat	$E = mL$

Unit 5: Forces

Equations to Learn	
weight = mass x gravitational field strength	$W = mg$
work done = force x distance (moved along the line of action of the force)	$W = Fs$
force = spring constant x extension	$F = ke$
distance travelled = speed x time	$s = vt$
acceleration = $\frac{\text{change in velocity}}{\text{time taken}}$	$a = \frac{\Delta v}{t}$
resultant force = mass x acceleration	$F = ma$
momentum = mass x velocity	$p = mv$
Equations given in the exam	
(final velocity)^2 – (initial velocity)^2 = 2 x acceleration x distance	$v^2 - u^2 = 2as$

Unit 6: Waves

Equations to Learn	
wave speed = frequency x wavelength	$v = f\lambda$
Equations given in the exam	
time period = $\frac{1}{\text{frequency}}$	$T = \frac{1}{f}$

Unit 7: Magnetism & Electromagnetism

Equations given in the exam	
* Force = magnetic flux density x current x length of conductor in magnetic field	$F = BIl$

Units & Symbols

Quantity (Symbol)	Units
Energy (E)	Joules (J)
Work Done (W)	Joules (J)
Power (P)	Watts (W)
Time (t)	seconds (s)
Mass (m)	kilograms (kg)
Distance	metres (m)
Displacement (s)	metres (m)
Speed	m / s
Velocity (v)	m / s
Charge (Q)	Coulombs (C)
Potential Difference (V)	Volts (V)
Current (I)	Amps (A)
Resistance (R)	Ohms (Ω)
Density (ρ)	kg / m^3
Volume (V)	m^3
Specific Heat Capacity (c)	J / kg C
Specific Latent Heat (L)	J / kg
Force (F)	Newtons (N)
Weight (W)	Newtons (N)
Gravitational Field Strength (g)	N / kg
Extension (e)	metres (m)
Spring Constant (k)	N / m
Acceleration (a)	m / s^2
Momentum (p)	kg m/s
Frequency (f)	Hertz (Hz)
Wavelength (λ)	metres (m)
Wave Speed (v)	m / s
Time Period (T)	seconds (s)
Magnetic Flux Density (B)	Tesla (T)

MALTBYACADEMY

SUBJECT SPECIFIC KEYWORDS

2022 - 2023

Subject Specific Keywords

<table>
<tr><th colspan="2">ENGLISH</th></tr>
<tr><th>LOVE</th><th>POWER</th></tr>
<tr><td>

- **Empathy** - To understand someone's feelings.
- **To woo** - To gain the love of someone.
- **Marriage** – The legal union of two people.
- **Love** - Intense feelings of deep affection.
- **Obsession** - Continually thinking of something.
- **Unrequited** – A love that is not returned.
- **Familial** – Love between family.
- **Platonic** – Love within friendships.

</td><td>

- **Social Responsibility** - Having a moral duty to act for the benefit of society.
- **Poverty** - The state of being extremely poor.
- **Wealth** - A large supply of possessions or money.
- **Breadline**- The poorest condition, which it is acceptable to live.
- **Education** - A social institution, which provides important knowledge and cultural values.
- **Healthcare** - The organised provision of medical care.
- **Democratic** - Where people get a say and elect the Government.

</td></tr>
<tr><th>IDENTITY</th><th>CONFLICT</th></tr>
<tr><td>

- **Responsibility** - Being accountable for something.
- **Social Class** - Divisions in society based on social and economic status.
- **Stereotypes** - Widely held viewpoint about a person/thing.
- **Society** - People living together in a community.
- **Morals** - Principles of what is right and wrong.
- **Mental Health** - A person's condition regarding psychological and emotional wellbeing.
- **Feminism** - Women's right and equality of the sexes.
- **Individuality** - A quality of a particular person.
- **Paranoia** - Extreme suspicion or mistrust.
- **Culture** - The ideas/social practices of a particular part of society.
- **Escapism** - Seeking distractions from reality, normally escaping an unpleasant situation.

</td><td>

- **Equality** - All beings are equal in all aspects of life.
- **Activism** - Using intense campaigning to bring a change.
- **Abusive** - Extremely offensive and insulting - can include habitual violence.
- **Politics** - Activities associated with governing a country, debates between different parties.
- **Judgemental** - Displaying an overly critical viewpoint.
- **Macabre** - Disturbing.
- **Stigma** - A negative idea attached to something.
- **Scab** - An employee who works when others are on strike.
- **Sexism** - Discriminating against a specific sex, normally women.
- **Feud** - A prolonged disagreement.
- **Marginalisation** - Treating a person or group as insignificant.
- **Racism** - Discrimination towards a specific race, thinking that you own race is superior.

</td></tr>
<tr><th colspan="2">ENABLING LANGUAGE</th></tr>
<tr><td>

Protagonist
Imagery
Metaphor
Symbol
Metaphor
Symbol
Dialogue

</td><td>

Repetition
Stage Direction
Imagery
Soliloquy
Monologue
Dramatic Irony

</td></tr>
</table>

ENGLISH

LOVE

- **To cherish** - To protect and care for someone.
- **Ecstasy** - An overwhelming feeling of happiness/excitement.
- **To crave** -To have a powerful desire for something.
- **Eternal** – Forever.
- **To tempt** - To entice somebody.
- **Admiration** – Respect and warm approval.
- **Passion** – A strong feeling or emotion.
- **Adoration** - Deep love and respect.
- **Significant** – Importantly.
- **Patriotism** - To show loyalty to one's own country.

POWER

- **Disenfranchised** - To be deprived of something.
- **Supernatural** - A force beyond scientific understanding.
- **To prophesy** - To predict something.
- **Power** - The ability to influence the behaviour of others.
- **To control** - Influencing and directing people's behaviour.
- **Suffragettes** - Campaigning for women's rights using peaceful protests.
- **Propaganda** - Misleading information promoting a specific point of view.

IDENTITY

- **Morality** - Distinction between right and wrong.
- **Social Responsibility** - A personal investment in the well-being of people and the planet.
- **Transformation** - To make a marked change.
- **Ambition** - Strong desire to achieve something.
- **Class** - Groups in society determined by social and economic status.
- **Welfare** - The health, happiness, and fortunes of an individual.

CONFLICT

- **Regicide** - The act of killing the king.
- **Gender Stereotypes** - Social roles encompassing behaviours and attitudes that expect certain genders to follow.
- **Tyranny** - A cruel leadership.
- **Fascism** - A one-party dictatorship, preparing the country for difficulties.
- **Devastation** - Severe and overwhelming shock or sadness.
- **Radicalisation** - Forcing someone to adopt extreme political and social views.
- **Socialism** - The theory that a country's resources should be owned and managed by the people.
- **Capitalism** - A system in which trade and industry are controlled by private owners for profit.
- **Patriarchy** - A system in society where men hold all the power.

ENABLING LANGUAGE

Juxtaposition
Connotations
Symbolism
Protagonist
Imagery

Metaphor
Symbol
Dialogue

Subject Specific Keywords

MATHEMATICS

COMMAND WORDS

- **Explain** – Write a sentence or a mathematical statement to show how you got to your answer or reached your conclusion.
- **Show** - All working needed to get to a given answer or complete a diagram to show given information.
- **Sketch** - Produce a drawing that does not have to be drawn to scale or a graph that is drawn without working out each coordinate.
- **Simplify Fully** - Simplify the given expression. Answer must be given in its simplest form.
- **Express** - Re-write in another form, some working out may be needed.
- **Change** - Usually convert from one unit to another; either using known metric unit conversions or the use of a conversion graph.
- **Factorise** - Insert brackets by taking out common factors.
- **Factorise Fully** - Insert brackets by taking out all the common factors.
- **Expand** - Remove brackets.
- **Expand and Simplify** - Remove brackets and then collect like terms.
- **Give a Reason** - Must be clear and accurate reasons. If the reasons are geometrical then make sure you: provide a reason for each stage of working (if required) and use correct geometric terminology.
- **Calculate** - A calculator and some working out will be needed.
- **Justify** - Show all working and/or give a written explanation.
- **Solve** - Find the solution of an equation or inequality.
- **Solve Algebraically** - Find the solution of an equation or inequality; algebraic manipulation must be shown.
- **Prove** - More formal than 'show', all steps must be present. In the case of a geometrical proof, reasons must be given.

FOUNDATION/KEY STAGE 3

Types of number:
Odd – ends in 1, 3, 5, 7, 9
Even – ends in 0, 2, 4, 6, 8 (is divisible by 2)
Factor – divides exactly into a number
e.g., 5 is a factor of 10
Multiple – in the times table of a number
e.g., 20 is a multiple of 10

Averages:
- Mode/Modal – the most common value or values.
- Median – the middle value when they are in order.
- Mean – add up all the values and divide by the number of terms.
- Range – highest value subtract the lowest value.

Special words:
- Sum – add the numbers together.
- Product – multiply the numbers.
- Difference – biggest take away the smallest.
- Estimate – round the numbers first and give an approximate answer.
- Correlation – the relationship between 2 variables, can be positive, negative or no correlation. Draw a line of best fit if correlation is positive/negative.
- Tessellate – fit shapes together with no gaps.

Metric units:
Length – use mm, cm, m, km
Area – use mm2, cm2, m2, km2, (hectares)
Volume – use mm3, cm3, m3, ml, litres
Mass – use g, kg

Conversions:

1cm = 10mm	1 litre = 1000 ml
1m = 100cm	1kg = 1000g
1km = 1000m	1kg ≈ 2.2 pounds
	5 miles ≈ 8 km

HIGHER

Solving Quadratics
first rearrange into $ax^2 + bx + c = 0$ then…
- **Factorise -** put into 2 brackets
- **Complete the Square** $(x + a)^2 - b = 0$
- **Use the Formula**

$$x = \frac{b \pm \sqrt{b^2 - 4ac}}{2a}$$

Linear Graphs y = mx + c
m = gradient c = y-intercept
gradient (steepness) = $\frac{\text{change in y}}{\text{change in x}}$

Displaying Statistics
Histograms – remember that the frequency is given by the area of each bar not the height.
Use the clues given in the question to label the area or to find frequency densities.
Frequency Density = Frequency ÷ Class Width
Scatter Graphs – positive or negative correlation? You must draw a line of best fit when asked to estimate a value.
Cumulative Frequency- add up frequencies as you go and plot against the top of each group.

Congruent Triangles - SSS, SAS, ASA or RHS.

SCIENCE	
PLANNING	**DATA**
• **Accuracy** – Close to the true value. • **Calibration** – Marking a scale on a measuring instrument. • **Hypothesis** – A proposal intended to explain certain facts or observations. • **Control variable** – A variable that is kept constant so as to not affect the investigation. • **Dependent variable** – The variable that is measured. • **Independent variable** – The variable that is changed in the investigation.	• **Anomalies** – Any values that are not part of the pattern of results. • **Range** – The maximum and minimum values of the variables. • **Resolution** – The smallest measurement that can be made using a piece of equipment. • **Categoric data** – Values that can have word labels. • **Continuous data** – Values that can have any numerical value. • **Interval** – The quantity between readings. • **Evidence** – Data which is valid, trusted and can be used in a conclusion. • **Data** – Information that has been collected.
ERRORS	**EVALUATING**
• **Measuring error** – A difference between a measured value and the true value. • **Random error** – Any error that happens in an unpredictable way and cannot be corrected. • **Systematic error** – An error that causes readings to differ by the same amount each time. • **Zero error** – A systematic error caused by equipment not returning to zero.	• **Repeatable** – A measurement that you can get from repeating the same experiment with the same method and equipment. • **Reproducible** – A measurement that you can get from a different method, or from another person using the same method as you. • **Validity** – Suitability of the investigation for the question being asked. • **Precision** – Measurements with little spread between them.

Subject Specific Keywords

HISTORY

MEDICINE THROUGH TIME

- **Medieval** – Time period that relied on ancient ideas and beliefs.
- **Renaissance** – Time period where old ideas began to be questioned.
- **Enlightenment** – Time period where new ideas began to be developed: the power of the church reduced.
- **Modern** - 1900 - Present Day.
- **Western Front** – Area where fighting took place, in World War One.
- **Discoveries** – New ideas and advancements.
- **Prevention** – Stopping something from happening.
- **Treatment** – Attempts to fix a problem that has already occurred.
- **Causes** – Something that makes something else happen.
- **Theory** – An unproven idea.
- **Attitudes** – Willingness to accept new ideas.
- **Religion** – Organised belief system centred on God and morality.

EARLY ELIZABETHAN ENGLAND

- **Settlement** – Agreement between more than one side.
- **Privy Council** – Committee of ministers appointed by Elizabeth to advise her.
- **Legitimacy** – Having the right to rule.
- **Vagabond** – Wandering beggars who often turned to crime.
- **Succession** – Act or process of inheriting a title or office, e.g. the Crown.
- **Monarch** – A king or queen.
- **Papacy** – The organisation of the Pope and the leadership of the Catholic Church.
- **Catholic** – Christian religion under the leadership of the Pope.
- **Protestants** – Christians who broke away from the Catholic Church.
- **Puritans** – Radical Protestants who wanted religion to be based only on what was mentioned in the Bible.
- **Heresy** – Crimes against established religion.
- **Excommunication** – Banned from the Church and unable to go to Heaven on their death.

WEIMAR AND NAZI GERMANY

- **Fascism** – Extreme political view with tight control of the population and strong national pride.
- **Socialism** – Government should actively help its citizens to improve their lives.
- **Freikorps** – Ex-soldiers who formed militias after World War Two.
- **Reichstag** – German parliament.
- **Reparations** – Compensation money paid after a war.
- **Proportional Representation** – Percentage of seats in a government is dependent on a percentage of votes.
- **Propaganda** – Political advertising e.g. posters or radio.
- **Dictatorship** – Government by a single ruler who has absolute power.
- **Constitution** – Rules that decide how a country is governed.
- **Anti-Semitism** – Hatred of Jews.
- **Persecution** – Hostility and ill-treatment based on race, or political or religious beliefs.
- **Aryan** – Nazi word for German race.
- **Putsch** – Armed uprising that aims at taking over a government.

SUPERPOWER RELATIONS AND THE COLD WAR

- **Communism** – System that promotes a classless society where private ownership is abolished.
- **Marshall Plan** – Loans given to European countries by the US, which aimed at preventing the spread of communism.
- **Republic** – A country in which the head of state is an elected president.
- **Civil War** – War between two sides of the same country.
- **Coalition** – Government formed of two or more political parties.
- **Demilitarisation -** Removing all armed forces from an area.
- **Détente** – Attempt to reduce tension between the US and the USSR.
- **Nuclear Weapons** – Using weapons of mass destruction.
- **Satellite States** – Counties under the domination of a foreign power.
- **Sphere of Influence** – Region of the world where one state is dominant.
- **Blockade** – Sealing off a place to prevent goods or people from entering or leaving.
- **Ultimatum** – Final warning.

HISTORY

YEAR 7

- **Monarch** – Leader of a country, a king or queen.
- **Witan** – King's council in Anglo-Saxon England.
- **Invasion** – When another country or group attacks to take over another place.
- **Feudal System** – Medieval organisation of society.
- **Social** – Daily life.
- **Political** – Power and the running of a country.
- **Economic** – Money.
- **Religious** - To do with peoples' beliefs, morals and worship.

YEAR 8

- **Empire** – When a country takes over other countries.
- **Revolution** – A clear change in a political or social system.
- **Democracy** – Voting for a government.
- **Civil War** – When two sides belonging to the same country fight each other.
- **Plantations** – Large farms where a single crop is grown. For example, sugar.
- **Industrial** – Factories.
- **Pollution** – Fumes put into the atmosphere usually through industrial production.
- **Population** – The number of people in an area.

YEAR 9

- **Suffrage** – Right to vote.
- **Civil Rights** – The things a person should be entitled to as a member of a society.
- **Treaty** – Peace agreements between countries.
- **Trenches** – The tunnel or ditch system used by troops in World War One.
- **Holocaust** – The killing of 6 million Jews by the Nazis between 1933 and 1945.
- **Communism** – Political idea that everyone should be equal in wealth and status.
- **Capitalism** – Economic system where people are encouraged to make profit.
- **Segregation** – Groups of society deliberately divided based on characteristics.

Enabling Language

Analyse **Explain** **Evaluate** **Compare** **Describe**	**Inference** **Interpretation** **Source** **Judgement Consequences**	**Causation** **Comparison** **Chronology** **Change** **Continuity**

Subject Specific Keywords

GEOGRAPHY	
Y7 GEOGRAPHY TERMS	**Y8 GEOGRAPHY TERMS**
• **Locate** - To find on a map. • **Grid reference** - Box numbers on maps. • **Directions** - North, east, south, west. • **Immigration** - People moving between countries. • **Imports** - Products brought into a country. • **Exports** - Products sent out to other countries. • **Deforestation** - Cutting down of trees. • **Adaptations** - Things that help a plant or animal survive. • **Investment** - Giving money to help set up business and trade. • **Sweatshop** - A factory in an LIC with poor working conditions. • **Treaty** - Document/agreement between countries.	• **Urban Area** - Town/city. • **Rural Area** – Countryside. • **Population Density** - How many people live in an area. • **Settlement** - Where people live. • **Push Factor** - Makes people leave an area. • **Pull Factor** - Attracts people to an area. • **Deindustrialisation** - Factories close. • **Megacity** - 10+ million population. • **Desertification** - Deserts increase in size. • **Erosion** - Wearing away material. • **Weathering** - Plants/animals/weather break down material. • **Geology** - Rock type.
Y9 GEOGRAPHY TERMS	**GENERAL GEOGRAPHY TERMS**
• **Dormant** - Volcanoes that haven't erupted for a long time. • **Active** - Volcanoes can erupt anytime. • **Extinct** - Volcano won't erupt again. • **Climate** - The weather over a large area and a long period of time. • **Weather** - Daily changes in the atmosphere. • **Non-renewable** - Energy that will run out. • **Renewable** - Energy that will not run out. • **Carbon Footprint** - Amount of energy used by individuals/the pollution made. • **Fracking** - Gas taken from the ground using water pressure. • **Sustainable** - Thinking about the needs of the world now whilst protecting it for the future. • **Globalisation** - Interconnected world by trade and culture. • **Trade** - Business links between countries. • **Fairtrade** - Fair prices for farmers for their produce.	• **HIC** - High Income Country. • **NEE** - Newly Emerging Economy. • **LIC** - Low Income Country. • **Developing** - Poor country. • **Developed** - Rich country. • **Development** - To improve something. • **Human Features** - Made by people. • **Physical Features** - Naturally occurring. • **Climate** - The weather over a large area and long period of time. • **Social Factors** - Linked to people. • **Economic Factors** - Linked to money. • **Environmental Factors** - Linked to our surroundings (human/physical). • **Sustainable** - Thinking about the needs of the world now whilst protecting it for the future. • **Causes** - Makes something happen. • **Impacts/Effects** - What happens next. • **Solutions/Management** - How to fix a problem. • **Describe** - Say what you see (pattern). • **Explain** - Use 'because' to say why. • **Analyse** - Discuss pros/cons.