

Teaching & Learning Strategy

Magna Academy Poole

Also includes:

- CPD Strategy & Programme

Version Control	
Teaching & Learning Strategy September 2024	Designated focus for weekly staff briefings 2023-24 removed. Weekly CPD programme updated and 2023-24 schedule removed. Appendix 1 Magna Basics updated Note that seating plans should be completed on Arbor added. Appendix 4 section on Staff CPD planning removed Removal of reference to group sessions in Professional Development Portfolios.
Teaching & Learning Strategy 2023-07-31	New focus on retention and retrieval of information/knowledge: "Know more remember more". New weekly staff meeting plan.

Date of next review:	July 2025	Owner:	Assistant Principal (Teaching & Learning)
Type of document:	Academy Strategy	Approval Level:	Principal

2024-25 Focus: Know More Remember More

Teaching & Learning Vision

At Magna Academy Poole we have a relentless focus on improving teaching and learning so that every student, regardless of their socio-economic background, achieves the highest possible outcomes. Through the highest expectations and challenge, both within the classroom and in the wider academy context, we aim to have a transformational impact on our students' lives.

Our vision and framework for teaching and learning is closely linked to our Academy mantras:

- Work hard be kind
- Excellence is a habit
- Empowered by knowledge
- Aspire and achieve

We believe that through hard work and resilience, supported by our framework and culture of high aspirations, students can achieve whatever they set their minds to.

'Effortful learning changes the brain, building new connections and capability. [...] Our intellectual abilities are not fixed from birth but are, to a considerable degree, ours to shape. [...] The path to complex mastery or expert performance does not necessarily come from exceptional genes, but it most certainly entails self-discipline, grit and persistence; with these qualities in healthy measure, if you want to become an expert, you probably can.' (Brown et al, 2014)

Rationale

This teaching and learning strategy sets out to ensure that all of our students receive an excellent learning experience at Magna Academy Poole. Through this strategy, we aim to promote best practice and establish consistency in teaching and learning across the whole academy which leads to a consistently high level of student achievement and attitude. Our teaching and learning framework underpins everything that happens in lessons, and we believe that quality first teaching and consistency are key. It is research and evidence-informed, and includes key findings from cognitive science that help teachers to help students learn more deeply and more meaningfully. Some key reading that has helped to shape and develop it includes Making Every Lesson Count (Allison and Tharby), Embedded Formative Assessment (William), Teach Like a Champion (Lemov), Understanding How We Learn (Weinstein and Sumeracki), The Science of Learning (Busch and Watson), The Education Endowment Foundation, The Curriculum – Gallimaufry to coherence (Myatt), Make it stick (Brown et al.), DfE Teachers' Standards, Rosenshine's Principles of Instruction, and Unleashing Great Teaching (Weston and Clay). Our framework is not a one-size-fits-all lesson structure but is a guide for teachers to shape their lessons appropriately to the needs of the students, whilst using their professional judgement. This strategy closely links to our Literacy and Oracy Strategy, with these skills being delivered both as an integrated pedagogy and as a discrete entity.

Each subject area has set out its curriculum intent and this strategy sets out the framework for its implementation. We recognise the importance of quality continuing professional development for staff and invest heavily in this to ensure that the curriculum is effective in action.

Aims

- To ensure all of our students leave the Academy with the best possible outcomes for their future and career
- To deliver lessons that inspire and engage, and build intellectual curiosity and a life-long love for learning in our students
- To empower students with knowledge to enable them to succeed in an ever-changing world
- To equip students with a range of skills for the 21st Century
- To provide our students with a range of learning experiences inside and outside the classroom to develop them into well-rounded citizens

Threshold Concepts in Teaching & Learning

“A threshold concept can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress.” (Meyer and Land, 2003)

Threshold concepts apply to all subject disciplines, and we believe that they also apply to our understanding of pedagogy. We expect teachers to consider threshold concepts within teaching and learning carefully as these ideas will irreversibly transform their view of teaching, and teachers should therefore utilise their implications in the classroom.

- Cognitive load theory & its implications for instructional design ‘Learning is a change in long term memory’ (Sweller et al, 1998, 2019)
- Performance and learning are not synonymous. The need for desirable difficulties ‘Learning is the long-term retention of knowledge and the ability to transfer it to new contexts’ (Bjork, 2015)
- ‘Memory is the residue of thought & understanding is learning in disguise’ (Willingham, 2009)
- A skill is the ability to use one’s knowledge effectively and readily in execution or performance. Reasoning, problem solving and creative skills are largely domain specific and enabled by deep knowledge of the subject. (Tricot & Sweller, 2014)
- The use and power of deliberate, retrieval & intelligent practice. ‘Don’t practise until you get it right. Practise until you can’t get it wrong.’ (Lo & Marton, 2012)
- The potential and limitations of formative assessment; assessment is the bridge between teaching and learning - use evidence about learning to adapt teaching and learning to meet student needs. (Wiliam, 2013)

Six Mastery Fundamentals (6MF)

At Magna Academy Poole, lessons and staff development through continuing professional development (CPD) are planned with the six fundamentals of teaching and learning at the core:

- Challenge
- Explanation
- Modelling
- Deliberate practice
- Questioning
- Feedback

The framework below details what this looks like in practice:

The Six Mastery Fundamentals (6MF)					
Challenge	Explanation	Modelling	Deliberate Practice	Questioning	Feedback
<p>Teachers encourage students of all abilities to have high expectations of what they can achieve</p> <p>Teachers use the 'less breadth more depth' approach to increase the depth of learning</p> <p>Teachers challenge students to make links within lessons, over a series of lessons and across the entire curriculum (elaboration)</p> <p>Resources are ambitious and demanding, and allow all students to make excellent progress</p> <p>Teachers have a rigorous approach to the teaching of reading and embedding tier 2 and 3 vocabulary</p>	<p>Teachers present subject matter clearly and in small steps so that students acquire new knowledge and skills</p> <p>Teachers introduce new knowledge by building on prior knowledge and using examples, concrete examples and non-examples</p> <p>Teachers' explanations promote appropriate discussion about the subject matter they are teaching</p> <p>Teachers impart key knowledge and develop understanding, whilst promoting a love of learning and students' intellectual curiosity</p>	<p>Teachers provide high quality model answers to show students what excellence looks like</p> <p>Teachers use their visualiser effectively to construct/ deconstruct examples or answers</p> <p>Teachers think aloud and model steps to ensure that students know how to apply the knowledge and skills</p> <p>Teachers share success criteria when modelling so that expectations are clear</p>	<p>Teachers ensure that students practise for automaticity through a variety of different tasks (including extended writing)</p> <p>Practice tasks help students to remember content in the long term</p> <p>Tasks progress from a high level of guidance to independent practice and mastery</p> <p>Through a variety of practice, students are able to integrate new knowledge into larger concepts</p> <p>Teachers activate students as instructional resources for one another</p>	<p>Teachers ask probing questions to develop students' understanding</p> <p>Teachers systematically check students' understanding through questioning</p> <p>Students are made to think hard with breadth, depth and accuracy</p> <p>Teachers use a range of questioning techniques, including both targeted and whole class responses</p>	<p>Teachers identify students' misconceptions accurately and give clear, direct feedback</p> <p>Teachers use feedback from student responses/ work to adapt teaching as necessary</p> <p>Teacher feedback enables students to think about and further develop their knowledge and skills</p> <p>Teachers activate students as owners of their own learning</p>
<p>Scaffolding</p> <p>Students are supported to achieve because teachers adapt their teaching to respond to the strengths and needs of all.</p>					

Planning

Instruments of the Curriculum

Teachers plan collaboratively and all lessons are centralised. Schemes of work (Long Term Plans, Medium Term Plans) for all subjects are saved centrally. Teachers have the autonomy to choose and use a range of resources and materials e.g. PowerPoint, teacher-produced booklets, textbooks to plan and deliver high-quality lessons underpinned by this framework. Planning is done in advance of the unit and coordinated by Subject Leaders/Academic Directors, and quality assured by senior leaders. Although planning is done centrally, teachers should adapt resources for their class as necessary to meet their needs.

When designing resources, it is essential that they frame the curriculum and do not confine it. They must be accessible to all students, whilst remaining demanding and ambitious. The materials should privilege thinking over task completion and include dedicated time for thinking, and unpacking, and interpreting. Teachers must ensure that their resources demand an active participant who is involved in this translation from scheme of work to lesson material.

It is important to plan structured lessons (using the 6MF) with purposeful activities that promote student progress. We also expect teachers to take a rigorous approach to the teaching of reading and therefore provide students with opportunities for extended reading and writing in lessons, where appropriate. Furthermore, whilst lessons should always be planned in advance, we expect and encourage teachers to use their professional judgement and to deviate from the lesson plan when necessary, for example to address a misconception - this is part of responsive teaching. The Magna Basics (see Appendix 1) is a useful tool that teachers are encouraged to use as it has a range of techniques for helping to maximise learning time and student progress. We expect teachers to understand effective pedagogy and use a range of skills in their teaching. A non-exhaustive list of what this looks like in the classroom is in our 'What does good teaching look like?' document (Appendix 3).

Departments produce Knowledge Organisers for each unit, which include key information, facts and ideas that students are required to learn from memory. It is important that teachers encourage students to make links with this information through skilled questioning, discussion and practice tasks in the lesson. This also forms an integral part of our Homework Strategy. Training for staff and students on effective use of these forms part of our CPD programme.

Effective Revision

To support students with their retention of knowledge we have incorporated effective revision into our curriculum and homework strategy. A comprehensive guide with techniques for staff and students is available - please see our academy Homework Strategy for further details.

Expectations

Lesson Structure

All lessons have a single challenging learning objective or an inquiry question (where appropriate).

All lessons begin with a settling activity (Do Now task) of approximately 5 minutes, this should normally be knowledge retrieval of previous learning.

One lesson of each two-week cycle should include a 10-question quiz based on the unit Knowledge Organiser. Scores do not need to be recorded on a centralised spreadsheet,

however teachers may take these in for their own records and tracking, and use this to inform teaching.

Full details of our assessment guidelines are outlined in our Assessment, Recording and Reporting Strategy.

Learning Environment

We use displays to support, reinforce and celebrate learning. Displays should aid recall, stimulate further thinking, give new information and make connections. They should also celebrate achievement, remind students of expectations and motivate children towards further learning and/or career aspirations. It is the responsibility of the class teacher to maintain high-quality displays to inspire students in their classroom.

Learning Behaviour

Behaviour management is an integral part of implementing the curriculum and we therefore expect teachers to create a secure and friendly environment in which high levels of good behaviour are maintained. This will enable students to thrive, enjoy and develop the skills and capacity to work independently and collaboratively, making good progress in all aspects of their learning.

Remote education

In the event of an academy closure or prolonged student absence, the academy is committed to providing continuity of education for its students and will do so through a process of remote (online) learning. Students will continue their curriculum primarily through Google Classroom, with a small number of subjects using other secure platforms.

Inclusion

SEND

Every student regardless of their Special Educational Needs or Disabilities (SEND) has the right to receive the highest quality education, one that is appropriate to their needs, has high standards and the fulfilment of potential. This should enable every student to achieve their best, become confident individuals and make a successful transition into adulthood. High quality teaching, differentiated for individual students is the first step in ensuring that any Special Educational Needs are met.

Every student on the SEND register has a learning profile on provision map. These learning profiles provide useful strategies to support quality first teaching. Through appropriate scaffolding support and retrieval practice, all teachers will ensure that these strategies are put in place as part of the graduated response to SEND needs.

EAL

Students with EAL have a dual task at school: to learn English (language) and to learn through English. Bilingualism and multilingualism are an asset to our students, the ability to use more than one language is a valuable skill that learners who use EAL bring with them, regardless of whether they are new to English or not. Learners actively use the languages they already know to learn English. At Magna Academy we ensure our high expectations around cognitive challenge are maintained. Access to the curriculum is needed, but this does not imply the “dumbing down” of the content. The students' proficiency in English is closely linked to academic success, EAL students need to be given opportunities to grow their English vocabulary range. This could be done by taking advantage of their first

language(s) through translation, the use of flashcards and images whilst being immersed in their second language.

Disadvantaged

As set out in our vision, we have a relentless focus on ensuring that all students achieve the highest possible outcomes regardless of their socio-economic background. In addition to the range of strategies and interventions in place (such as one to one tutoring or small group sessions) for our disadvantaged students, we believe that quality first teaching has the most impact and ensure that staff are well-trained to cater for all our students' needs inside the classroom. A Senior Leader has overall responsibility for the Pupil Premium strategy, and tracks students' progress very closely to ensure timely intervention is put in place as necessary.

Most Able

We believe in creating a culture of 'aspire and achieve' and that all students are entitled to make the greatest progress possible, and that it is essential to ensure that our 'High Prior Attainment' students are challenged sufficiently to achieve this. Our aim is to provide an education that is appropriate to the needs and abilities of such students, which promotes not only their academic development but also their personal development. Our teaching and learning framework ensures that these students are appropriately challenged in lessons to make excellent progress, and our overall strategy enables them to develop their cultural capital.

Feedback/Marking

At Magna Academy Poole we focus on two types of feedback – 'live marking' and written feedback. Live marking takes place in the lesson and is usually verbal which allows our students to improve their work immediately. We believe that whole class feedback has the greatest impact on student progress and this is primarily how staff convey written feedback to students. We also encourage peer and self-assessment as and when appropriate.

Full details of our feedback guidelines are outlined in our Feedback Strategy.

Homework

Homework is an important part of consolidating learning and understanding, and accordingly we have a comprehensive weekly programme consisting of a range of practice and consolidation tasks for subjects, as well as reading homework at KS3. Knowledge Organisers and self-quizzing form an integral part of our programme for all key stages. When devising homework, it is important that teachers take account of the four principles that we believe make effective homework: embed, apply, improve, extend.

Full details of our homework guidelines are outlined in our Homework Strategy.

Assessment

Assessment is a cornerstone of effective learning, both formative and summative, and is used to promote and monitor the progress of students at Magna Academy Poole. Evidence from assessment is used to respond to and adapt the teaching to meet the needs of our students. All teachers use a range of assessment techniques within lessons to support students' academic development, and our teaching and learning framework places an emphasis on the students' ability to act on feedback given so that they are reflective and 'learn how to learn'.

Full details of our assessment guidelines are outlined in our Assessment & Setting Strategy.

Literacy and Oracy

The teaching of literacy and oracy is fundamental to ensure that students can access the curriculum, develop into confident young people and therefore leave the Academy fully equipped for their future careers. Therefore, we place much importance on literacy and oracy across the Academy and expect teachers of all subjects to teach and embed these skills.

We have identified 8 key literacy techniques (8LT) that teachers of all subjects use in lessons when working with text of any kind, as appropriate, and also during DEAR sessions.

1. Spot Check
2. Call & Response
3. Accountable Independent Reading (AIR)
4. Mark Up
5. Habits of Discussion (HOD)
6. Show Call
7. Control the Game
8. Read-Aloud

The teaching of literacy and oracy is delivered both as an integrated pedagogy within each curriculum area and through discrete sessions. We use an oracy framework and a progression chart to support the development of students' speaking skills, which covers the physical, cognitive, linguistic, and social and emotional aspects of oracy.

Full details of our literacy expectations and guidelines are outlined in our Literacy and Oracy Strategy.

Numeracy

The teaching of numeracy is fundamental to ensure that students can apply their mathematical knowledge, skills and understanding across the whole curriculum as well as to real life situations. Magna Academy aims to ensure that every student is fully numerically confident for their future careers. We place much importance on numeracy across the Academy and expect teachers of all relevant subjects to teach and embed it. A range of strategies are used to promote and embed numeracy across the curriculum:

1. Promote a positive attitude towards Mathematics from all staff and students by using whole school or year group competitions and events,
2. Highlight and develop links between all subjects and Mathematics,
3. Ensure consistent mathematical methods are used across the Academy, particularly in relation to arithmetic calculations, percentages, statistics and the use of calculators,
4. Encourage and develop the use of mental calculation methods,
5. Fortnightly financial education delivered during tutor time.

Full details of our numeracy expectations and guidelines are outlined in the Numeracy Strategy.

Continuing Professional Development (CPD)

Vision

Our vision is to create a culture of learning that supports each other's professional development, and empowers each other as teaching and learning professionals resulting in the best outcomes for our students.

Rationale

We believe that the best educators are the best learners and we therefore expect staff to be avidly engaged with their own professional learning within a dynamic learning community. We value high-quality dialogue and insightful reflection between all members of staff with regards to their classroom practice. Teachers should actively seek opportunities to observe others both formally and informally and share good practice. Staff should actively connect with research in order to best inform their own classroom practice and in turn the professional learning provided within the academy is informed by research.

“Every teacher needs to improve, not because they are not good enough, but because they can be even better.” (William)

Our CPD programme has been developed with the interests of our students at the heart of it, but we recognise that it must also support our staff to achieve their career aspirations. In creating this programme, we have identified the training needs of our staff and ensured that it links closely to the Appraisal process and our Academy Improvement Plan.

We place great importance on developing teachers' subject knowledge and dedicate time and resources to ensure that staff are properly supported to do this. We enable teachers to build their subject, pedagogical and pedagogical content knowledge over time, which translates into improvements in the teaching of the curriculum.

Aims

- To establish a teaching and learning culture within the Academy based on evidence and research
- To provide CPD that supports staff in meeting the needs and aspirations of all students
- To provide all staff with developmental opportunities to extend and enhance their range of teaching, skills, and knowledge.
- To continue to improve the quality of teaching and learning in the Academy with a focus on student outcomes
- To develop staff as part of Academy succession planning

Magna CPD Pillars

We have a formal programme of CPD which comprises all-staff sessions, curriculum team sessions and pastoral team sessions. Our formal CPD activities fall into the following 'pillars', although we recognise that there are numerous informal CPD opportunities which occur on an ad hoc basis at all levels:

Magna CPD Pillars		
Weekly/Fortnightly CPD	All Staff Sessions	Ongoing CPD
<ul style="list-style-type: none"> Fortnightly House Teams - pastoral focus (Tues/Weds/Thurs Week 1) All teaching staff involved Led by Subject Leader/Academic Director/Head of House Planning/resourcing for the unit Review of feedback logs Book sampling - quality of work, common misconceptions Reviewing key students/20s plenty Fortnightly House curriculum teams on a Monday (week 2) Middle leaders forum (weekly Wednesday am) 	<ul style="list-style-type: none"> Mondays Week 1 of each unit All staff deliberate practice (6MF & Magna Basics) & Personal Development training Know more remember more Includes INSET Days - focus on update training and curriculum/subject development and Appraisals 	<ul style="list-style-type: none"> External courses and qualifications e.g. NPQs, Apprenticeships, South West Teaching Schools Hub Staff focus on specific area to improve their own pedagogy /content knowledge CPD library IRIS Peer observation Coaching, mentoring Subject network meetings Aspirations conferences Lesson drop ins Video bank of best practice

House & Curriculum Teams

House teams have a fortnightly meeting (either Tuesday, Wednesday or Thursday week 1), from 3.30-4.30pm with a pastoral focus. Sixth Form tutors have bespoke morning briefing as alternative to this. Heads of House determine how to allocate the time each week so that it is used effectively.

House curriculum teams have a fortnightly meeting on a Monday (week 2), from 3.30-4.30pm with a focus on curriculum planning and resourcing, moderation, work scrutiny, subject knowledge development and academy calendars. In addition, curriculum teams meet for a morning briefing from 8.15-8.27am once per fortnight.

These meetings have a set agenda with standing items and are minuted and saved in the QA Admin folder on Google Drive.

Weekly Staff Briefings

Every Monday morning from 8.15-8.27am, all staff will attend a briefing to ensure key information and messages are disseminated for the week ahead.

Weekly CPD Programme

Our overall CPD programme is based on our teaching and learning framework. Professional development (CPD) sessions are conducted for all teaching staff throughout the year, focusing on areas needing improvement identified in the Annual Improvement Plan (AIP) and through continuous monitoring. Staff then have the opportunity to embed strategies within their lessons and record best practice using IRIS. Time is then given within curriculum teams to share good practice and allow for constructive feedback and further refinement. Staff will also be asked to identify areas they would like to receive further training on, and in combination with the appraisal process, this information will be used to plan periodic CPD sessions when there is a 'menu' of training available for staff to choose from. In combination, these strategies empower staff to take ownership of their own learning and professional development, whilst ensuring that we maintain consistency across the academy. The CPD programme runs each Monday (3.15-4.15pm)

Middle Leaders Forum

Middle leaders (Academic Directors, Heads of House, Subject Leads and those with TLR) have a fortnightly forum on a Week 2 Wednesday (8.00-8.25). This mainly centres around the Raising Standards strategy and academy calendars, but also includes other training identified throughout the year, and provides the opportunity for leaders to discuss and share best practice in their areas.

T&L Showcase - Unit 7 Week 3

Once per year (July) staff come together to showcase best practice in the form of a 'T&L Showcase'. This year, teaching staff will present their 'Know More Remember More' resources and demonstrate their impact and intentions for the following academic year.

IRIS Connect

All staff must use IRIS Connect (video-based professional learning platform) at least once per term. We believe it is essential that as teachers we constantly reflect on and adapt our practice where necessary, and by using IRIS staff are able to record lessons which they can review afterwards and also share with others for feedback to help them develop even further. Time is allocated within the CPD schedule to allow this to happen within curriculum teams.

Support Staff

Support staff have a separate CPD programme as coordinated by the Director of Business & Operations. This includes training to develop their skills, and training that is tailored to their specific job role and linked to their Appraisal. This also includes statutory training such as First Aid. In addition, Phoenix staff have a comprehensive CPD programme which includes a range of external training and in-house training as part of their weekly meetings.

Professional Development Portfolio (Professional Growth Dossier)

All teaching staff have a professional development portfolio which should be regularly updated after academy CPD. This is a valuable tool when planning as it includes resources / techniques from all CPD sessions to be implemented and evaluated. This portfolio should

also include any external CPD undertaken and will be used as evidence as part of the Appraisal process. This can be kept electronically.

Early Career Teachers (ECTs)

Early Career Teachers follow a two-year induction programme in line with the Early Career Framework. This is delivered by an external provider and includes a range of face-to-face and self-study sessions. ECTs are assigned a mentor to support them to become excellent practitioners. ECTs are also expected to attend the all staff sessions as part of the academy CPD programme, and will receive bespoke sessions as and when appropriate in order to develop other aspects of their role within the academy.

INSET Days

We have five INSET days per year and we dedicate a significant amount of time during these days to curriculum/subject development; this ensures that staff have the most up-to-date knowledge of their subject and specifications. Some of these days are also used for update training (such as safeguarding, behaviour, educational visits), for Appraisal meetings, and for collaborating with our Aspirations colleagues in the south west. Our INSET days are divided into three strands: Support Staff, Education Support Staff and Teaching Staff.

New Staff Induction

New staff attend an induction day before starting at the Academy, which includes safeguarding training, policies and procedures, and time in the department area. They also have additional sessions on INSET days so they are trained in our framework. There is ongoing support for new staff after this, and each one is assigned a buddy.

Quality Assurance



The Vice Principal (Quality of Education) ensures the overall implementation of the main provisions of the strategy. Senior Leaders and those with a TLR closely monitor and evaluate the quality of teaching and learning in their areas and/or across the Academy, as per the Quality Assurance Strategy.

This is monitored through:

- Lesson Drop Ins/ short lesson observations by Subject Leaders/line managers
- Staff Appraisal process
- Weekly subject meetings
- Tracking of student data within subjects/groups
- SLT Lesson Drop ins
- Work scrutiny programme
- Aspirations Reviews
- Monitoring visits
- Student and parent voice
- Governance

All staff receive regular feedback, which includes highlighting good practice and any areas for development. The Vice Principal (Quality of Education) and Assistant Principal (Teaching and Learning) will collate and review lesson drop in forms termly and share best practice and actions with SLT and stakeholders. Any staff who require additional support will have this put in place as necessary.

Full details of our monitoring guidelines are outlined in our Monitoring of Teaching and Learning section of the academy Quality Assurance Strategy.

 <p>Magna Academy Poole an Aspirations Academy</p>		<p>Magna Basics Lesson Priorities 2024-2025</p>	
<p>Basics in Every Lesson</p>		<p>Assessment for Learning (AFL)</p>	
1	<p>Strong Start: 'Meet and greet' at the door - high expectations of corridor conduct, uniform and equipment out ready for learning.</p>	<p>A mass assessment of all students' current understanding of what has been taught, not just checking one or two responses.</p> <p>Check 'what' students have understood (instead of 'if'), and use it to adapt teaching or reteach a concept.</p> <p>Teaching is responsive to the needs of the students - be prepared to teach 'backwards and forwards' to ensure students know more and remember more.</p> <p>Use a range of techniques - plan in advance:</p> <ul style="list-style-type: none"> • MWB (1-2-3 Show Me) • RAG Cards • Cold-calling - Targeted Questioning • Socratic Questioning - Challenge • Think/Pair/Talk Concepts • Live Marking/Feedback • 'Show call' - Share student work under visualiser 	
2	<p>'Do Now' Task displayed - knowledge questions/retrieval activity (5 mins). Answers displayed on board to check for understanding.</p>		
3	<p>Inquiry Question: Starter slide with a challenging single 'Inquiry Question'.</p>		
4	<p>Content delivery: Chunked explanation of content/task in small steps. Modelling of tasks is essential. Demonstrate how learning applies to the real world where appropriate.</p>		
5	<p>Students apply knowledge/skills: Scaffolding provided to suit the needs of all. Extension tasks provided.</p>		
6	<p>Assessment for Learning (AFL). Check for understanding frequently. Students improve their work using green pen.</p>		
7	<p>Plenary: End with knowledge retrieval (cold calling/chanting) or a final plenary. Check uniform. Dismiss row by row in a calm, quiet and orderly fashion.</p>		
<p>Six Mastery Fundamentals (6MF) Challenge, Explanation, Modelling, Deliberate Practice, Questioning, Feedback</p>			

Appendix 2

Class Files

Each class teacher should maintain a physical class file with information about each group that they teach. Class files are primarily for class SEND information and should include:

- Seating plans
- Quality first teaching booklet
- Learning Profiles
- Any additional info – we would expect these documents to be annotated with your own info about the students you teach.

Seating plans must remain up to date and have SEND, PP, EAL and Most Able students highlighted. They should be created using the 'My Classroom' function on Arbor.

Tutors should also keep a seating plan and data for their tutees in this file.

Appendix 3

What does good teaching look like?

- Careful planning
- Thorough knowledge of students as individuals
- Strong routines
- Clear presentation of ideas
- The ability to draw upon a comprehensive body of subject knowledge
- Effective questioning
- Varied activities including group work and paired work
- The ability to adapt work to the needs of students
- Effective deployment of TAs
- Preparedness to diverge from the lesson plan if it becomes clear that ideas have not been understood, and further practice is necessary to enable full understanding
- Regular checks on students' understanding
- The ability to vary the pace of lessons according to the needs of the class
- Good classroom control based upon engaging teaching rather than strict discipline

Appendix 4 - 'Know More Remember More' Strategy

Rationale

Ofsted Area of Improvement (March 2023):

In key stage 3, some teaching does not aid students to remember what they have been taught. Consequently, students do not always build a secure understanding of the subjects they study. Leaders need to ensure that teaching helps students to recall what they already know so that they can build on this knowledge.

Our Aim: We want Magna students to be critical of how they think, the strategies they use to try to solve problems, the decisions they make, and the ideas they seek to use as part of their learning.

Evidence Based Research

Literature:

- 'How We Learn' - Benedict Carey
- 'Understanding How We Learn' - Yana Weinstein & Megan Sumeracki
- 'Retrieval Practice: Myths,- Mutations & Mistakes' - EEF
- 'Five Informative Assessment Strategies' - Kate Jones
- 'Cognitive Load Theory in Action' - Oliver Lovell
- 'Retrieval Practice: Research & Resources for Every Classroom' - Kate Jones
- 'Retrieval Practice Resource Guide: Activities for the Classroom' - Kate Jones
- 'Retrieval Practice 2: Implementing, Embedding & Reflecting - Kate Jones

Organisations:

- Cognitive Education Development - The University of Exeter
- EEF Metacognition Strategy & Implementation
- Thinking Matters: Metacognition and Self-regulation
- The Learning Scientists: Six Strategies for Effective Learning
- Thinking Harder - Partners in Excellence (PiXL)

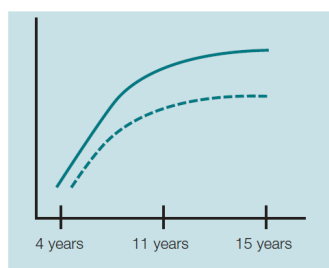
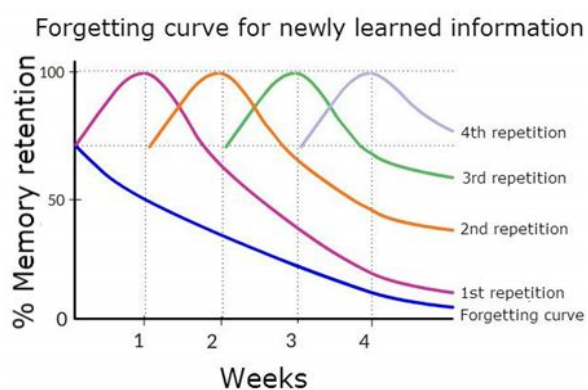
Literature Review Summary:

- Our working memory capacity is limited, so by storing more in our long-term memory, we can free up working memory capacity.
- Retrieval practice is a strategy in which bringing information to mind enhances and boosts learning. Deliberately recalling information forces us to pull our knowledge 'out' and examine what we know.
- Retrieval practice strengthens memory and makes it easier to retrieve the information later.
- Students need to process the same information in a variety of ways to retain and retrieve information
- The end-goal for developing self-regulated thinking (and therefore improving outcomes/motivation in learning) is the appropriation/habituation of these routines by students. In other words, students can independently select an approach to take and are consciously aware of how well this works for them. And for this to happen they need to have lots of opportunities to use these devices in multiple contexts (and have this modelled effectively for them by the 'expert-thinker' in the room. i.e. the teacher).
- The challenge is providing strategies for teachers to incorporate into daily practice. (And try to debunk the myth that you have to re-write lesson plans to do this).
- A key element of retrieval practice is to recall information from long-term memory. If students can view their class notes, textbooks or have information visible on the board or via classroom displays, this dilutes the level of challenge and therefore reduces the overall effectiveness of retrieval practice.
- A benefit of retrieval practice is that it is a versatile strategy that can be used in a variety of creative and innovative ways that can be engaging in the classroom. It is important that teachers do not neglect question design in favour of designing or delivering a range of retrieval-based tasks. Good question design is central to effective retrieval practice in the classroom.
- Retrieval practice should not be led wholly by classroom activities—instead, time should be dedicated to careful question design. Creating high-quality questions that

effectively focus the learners' attention on the desired learning can be difficult and time-consuming. An efficient means of designing (and, crucially, sharing) good questions can be achieved through collaboration between colleagues.

- Retrieval practice is not considered to be a formal assessment strategy because the emphasis should be on regular low-stakes retrieval practice conducted to support learning, not measure it.
- Evidence that suggests (e.g. Hattie) that if many different approaches are taken to model the use of these devices by lots of different teachers, then it takes longer for students to habituate and independently use effective thinking routines (as they are exposed to many different approaches). Hattie calls this 'collective teacher efficacy'

The Forgetting Curve & Limits to the Working Memory - Ebbinghaus



The changes in working memory capacity with age for an average child are shown by the solid line. Scores of a child with a low working memory capacity are represented by the broken line.

Typically, children with poor working memory:

- Are reserved in group activities in the classroom, rarely volunteering answers and sometimes not answering direct questions
- Behave as though they have not paid attention, for example forgetting part or all of instructions or messages, or not seeing tasks through to completion
- Frequently lose their place in complicated tasks that they may abandon
- Forget the content of messages and instructions
- Make poor academic progress during the academy years, particularly in the areas of reading and mathematics
- Are considered by their teachers to have short attention spans and also to be easily distracted

How can we improve this?





- Recognise working memory failures:
 - Consistent, robust and strategically placed assessments (Subject Assessment Journeys and academy policy/strategy):
 - Low stakes, ongoing retrieval for learning that takes place in every lesson (Appendix 1 to 4)
 - Regular Knowledge Retrieval Tests (Self-Quizzing)
 - End of Unit/Topic Assessments
 - Mock Examinations
- Extensively monitor the student:
 - Tracking of the above (not low stakes retrieval for learning)
 - Question Level Analysis (QLA)

- Link to GL Assessment Profiles and KS2 Scaled Scores
- Bespoke Retrieval intervention for key students
- Reduce working memory loads:
 - Personalised Learning Checklists (PLCs)
 - Spaced Retrieval Timetables
 - Homework Strategy - week 5
- Develop the students use of memory-relieving strategies - Low cost = high impact
 - In every lesson interleaved with the Magna Basics model:
 - Know More Remember More - Devices* (Appendix 1)
 - Know More Remember More - Questioning & Talk Concepts (Appendix 2)
 - QLA linked to bespoke Do NOW/Do NEXT and Homework tasks as an addition to the above low stakes retrieval.
 - Effective Revision Fortnights:
 - Modelling effective revision techniques in each subject for students to replicate at home (alternative to SQ)
 - Six Strategies for Effective Learning (Appendix 3)
 - Effective Revision Techniques (Appendix 4)





*Feedback from Adam Broad - Consultant/Development Director from Thinking Matters.
 'This looks great. Is this something you've drawn together yourself, as I've not seen this format before? Having looked it through, these cover so many areas of metacognitive thinking and effective thinking processes.'

'Know More - Remember More' Devices

Challenge

 Reduce It	Reduce a paragraph to 3/4/5 key points and then reconstruct it. Write 3 questions that the lesson so far has answered. Sum up the content of today's lesson into three key words and justify Reduce today's lesson content into 12 words	 Transform It	Transform a paragraph or the last piece of work into a picture/story board Transform a picture or video into a phrase What does the question want you to do and how should you Write 3 questions that the lesson has answered so far
 Derive It	Identify three messages contained in a text Explain this work in no more than 10 words Group similar facts together to make memorisation easier Use 5 words to explain this picture/diagram/video	 Deconstruct It	Deconstruct by using mind maps, flash cards or flow charts Deconstruct by summarising in a tweet – 140 characters max From the objectives set - tell us what the lesson will be about Deconstruct the exam question - 'command' and 'trigger' words


Modelling & Deliberate Practice

 Prioritise It	Underline the 3 most important sentences in a text and justify Put information into a diamond 4 or 9, rank order and justify Prioritise/rank the knowledge you have learnt today - rank order What was the most important thing you've learnt and why	 Categorise It	Link lists of facts/words together imagining a story Venn diagram to categorise key features of a text Sort information into categories and think of a suitable title for each What have you learnt today - how will it affect... Is it good or bad...
 Criticise It	Break this text into 3 chunks & criticise each chunk - devil's-advocate Explain who/what is the most/least important and why Cross out the least important point and explain your thinking Criticise the viewpoints of others and justify your reasoning	 Practice It	Make a note of new vocabulary, find out the meaning in a word log Deliberate practice - modelling- and exam style questions Think-pair concepts (Appendix 2) Write your own exam questions/mark schemes based on today's lesson

Explanation & Questioning

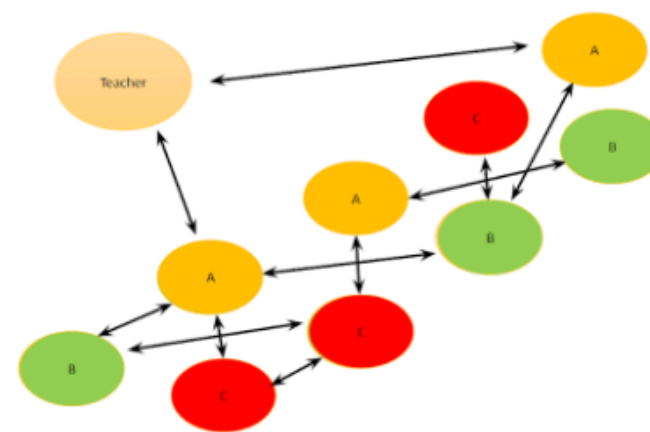
 Compare It	Explain why some questions are the hardest/easiest Group together questions that require the same technique Compare the most interesting parts of the lesson with others Compare two things from today's lesson	 Connect It	How does the learning in this lesson link to what you learnt in the last lesson? How does today's lesson link to another topic we have studied this year? Describe where you might use today's knowledge in another subject. Write four key words from today's lesson and explain how they connect
 Extend It	Write down your own description of a picture/event Improve any paragraph in three set ways Write about the importance of key words learnt today Explain why your peer found part of the lesson interesting	 Create It	Use the text to create a storyboard cycle Create a mind map of the topic we are learning about Create exam style questions with mark schemes for others Create a flow-chart to show the steps required to complete a question

Feedback

	Identify which skills are required to answer any question Describe where you may use today's knowledge in another subject How effective was your thinking today? Why What were you thinking about during the task? What different strategies did you try? Which worked best?	How do you see your thinking changing in the next lesson? What impact has your thinking had? How did it help you? What will you take away from today's lesson? How could you use it to change your thinking in the future? Where did you get stuck today? Why did this happen?
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Question Stems & Think-Pair Concepts

Question Stems & Think-Pair Concepts		Think-Pair Concepts
<p>'Check for Understanding' (Closed questions - AfL) before 'Deepening Understanding' (Open/Socratic question stems)</p>		<p>Think-Pair Concepts</p>
<p>Step 1: Firstly we 'classify' their thinking...</p>		<p>The most impactful part is giving students SILENT TIME TO THINK!</p>
<p>Can you explain that...? What do you mean by...? Can you give me an example of...? How does that help...? Does anyone have a question...?</p>	<p>Example... Boscastle Flooding <i>Teacher: "What do you know about the role of heavy rain in the cause of this flood?"</i> <i>Student: "There was over a month's rain in just 24 hours. This went straight into the river and caused it to burst its banks."</i></p>	<p>Think-pair-share...</p> <ul style="list-style-type: none"> • Think – Time? • Pair – Talk to the person next to you, • Share – With the whole group. <p>Think-Pair-Listen...</p> <ul style="list-style-type: none"> • Think – Time? • Pair – Talk to person next to you, • Share – Explain your partners views
<p>Step 2: Next we 'probe assumptions and demand evidence'...</p>		<p>Think-Pair-Square...</p> <ul style="list-style-type: none"> • Think – Time? • Pair – Talk to the person next to you, • Square – With your partner and then another. <p>Think-Pair-Silent Share...</p> <ul style="list-style-type: none"> • Think – Time? • Pair – Start discussing ideas on paper silently with partner, • Silent Share – Comment on other opinions on the sheet
<p>Why do you think that...? How do we know that...? What are your reasons...? Do you have evidence...? Can you give an example...? Can you give a counter-example...?</p>	<p><i>Teacher: "What would change your answer about the flood being caused by heavy rain?"</i> <i>Student: "If there were other places that had as much rain and didn't flood. Then I would have to look at other factors."</i> <i>Teacher: "Did every village in the area flood?"</i> <i>Student: "No. It can't just have been the heavy rain."</i></p>	<p>ABC Feedback...</p> <ul style="list-style-type: none"> • A = Agree with; • B = Build upon; or • C = Challenge' the answers of other students
<p>Step 3: Then we ask for 'alternative viewpoints'...</p>		
<p>Can you put it another way...? Is there another point of view...? What if someone were to suggest that...? What would someone who disagreed say... What is the difference between those views?</p>	<p><i>Teacher: "So who might disagree that it was just caused by the amount of rain?"</i> <i>Student: "People living in Boscastle. They might feel that there were mistakes made in managing the drainage basin and that this caused the flood."</i></p>	
<p>Step 5: Then 'explore implications'...</p>		
<p>What follows from what you say...? Does that fit with what we said earlier...? What would be the consequences of that...? Is there a general rule for that...? How could you test to see if it were true...?</p>	<p><i>Teacher: "What would be the implications of accepting that there might be some human causes of the flood?"</i> <i>Student: "It would mean that people could identify these other factors and then see if they could modify the vulnerability of the area and make flooding less likely in the future."</i></p>	
<p>Step 5: Finally we 'question the question'...</p>		
<p>Do you have a question about that...? What kind of question is it...? How does that help us...? Where have we got to...? Who can summarise so far...?</p>	<p><i>Teacher: "Why do you think we need to ask questions like this?"</i> <i>Student: "If we accept that heavy rain alone doesn't cause flooding then we might be able to prevent a flood like this happening somewhere else."</i></p>	



Six Strategies for Effective Learning

Six Strategies for Effective Learning	
<p>Spaced practice</p> <p>For more effective and deeper learning, study has to take place in smaller chunks over a longer period of time (as opposed to 'blocked practice' which involves cramming in as much learning and revision as possible in a shorter block of time).</p> <p><i>How to do it:</i></p> <ol style="list-style-type: none"> 1. Avoid a revision strategy that involves cramming at the last minute. 2. Instead, plan a revision timetable with small 30-minute chunks of revision for three or four subjects per night (with breaks in between) over the course of the week. 3. This means that you might have two hours of maths revision during the week, but instead of being in one go and forgetting most of it, spread it out in smaller, more memorable chunks. 	<p>Retrieval practice</p> <p>When students leave some time in between learning topics, the brain forgets some information. However, the effort involved in retrieving the forgotten learning helps embed information more securely in the long term memory. It may seem counterintuitive but it is an extremely effective learning technique. <i>How to do it:</i></p> <ol style="list-style-type: none"> 1. Make a list of all the information you need to know from each topic in a particular subject, e.g. A quote for English 2. Close your book or revision guide and make a quiz using flashcards - Leitner Model 3. Try to recall (retrieve) everything you remember. 4. Go back and check what you remember against your answers. 5. Repeat, several times, but space repeats out.
<p>Interleaved practice</p> <p>Interleaving is when you mix up what you are studying. it is actually better for your memory and recall to split up topics in your study sessions.</p> <p><i>How to do it:</i></p> <ol style="list-style-type: none"> 1. Instead of revising Romeo and Juliet continuously for a week split the topics up over the week, for example Romeo and Juliet on a Monday and Wednesday and A Christmas Carol on a Tuesday and Sunday 	<p>Questioning and Elaboration</p> <p>Once you have learnt the information using retrieval practice, you should ask questions of what you have learned and try to find connections between ideas and concepts. <i>How to do it:</i></p> <ol style="list-style-type: none"> 1. Once you have had a few turns at retrieval and can remember the content, why not have a go at asking yourself some questions about it. 2. Ask yourself questions about a topic to delve deeper. The more information you have about a specific topic the stronger your grasp & recall. Try to answer the questions without using your study materials. 3. Example questions: Which concepts can link together? How can this relate x to y? How can it be further explained, using more detail? What are the similarities and differences between these two things?
<p>Dual Coding</p> <p>This is where you take a large body of text and convert it to a visual diagram, this might be a concept map or a diagram etc. Combining these visuals with words is an effective way to study.</p> <p><i>How to do it:</i></p> <ol style="list-style-type: none"> 1. When reading your revision guide, think of visuals, such as drawings or diagrams that match the information and draw it. 2. Certain types of visuals work very well with certain types of materials 3. Once you have done it. Try retrieving the dual coded work. 	<p>Concrete Examples</p> <p>Abstract ideas can be difficult to understand & explain. Our memories find it easier to remember concrete examples better than abstract information. This is about turning abstract ideas into real world examples. <i>How to do it:</i></p> <ol style="list-style-type: none"> 1. Try to find examples of abstract concepts that you study in different subjects and turn them into concrete examples. 2. Try to find exemplar answers to questions that you might get asked and pick apart how it was put together and use it to plan your own answer.

Effective Revision Techniques

Effective Revision Techniques		
<p style="text-align: center;">Mind Maps & Retrieval Clocks</p> <p>Use just keywords, or wherever possible images. Start from the centre of the page and work out. Make the centre a clear and strong visual image that depicts the general theme of the map. Create sub-centres for sub-themes. Put keywords on lines. This reinforces the structure of notes. Print rather than write in script. It makes them more readable and memorable. Lower case is more visually distinctive (and better remembered) than upper case. Use colour to depict themes and to make things stand out. Anything that stands out on the page will stand out in your mind. Use arrows, icons or other visual aids to show links between different elements. Be creative. Creativity aids memory.</p>	<p style="text-align: center;">Cue/Flash Cards</p> <p>A good cue card should contain all the KEY POINTS on a topic in a clear and concise way. It should be a condensed version of whatever you have in your notes and you should be able to take in the information on the card at a glance. By transferring information from your notes to the cue card you are re-learning what you have covered in class. This is because you have to put information in your own words and to do that you have to understand it! A cue card should just have the key points on. It shouldn't have loads and loads of detail. If you come back to a cue card and you don't understand it, use your more detailed class notes.</p>	<p style="text-align: center;">Leitner Method</p> <p>Use this method to organise the retrieval practice of your cue cards. It involves having three piles of cards 'Everyday', 'Every three days', 'Every week'. 1. Test yourself on the knowledge on your cue cards. 2. The ones you do not get right put them in a pile (the everyday pile). The ones you do get right put them in a different pile (every three days pile). 3. Review the ones you got wrong the next day. If you get them wrong again, keep them in that pile. If you get them right, put them in the 'Every three day pile'. 4. Three days later review the cards in the 'Three day pile'; if you get them wrong then move them back to the 'Everyday' pile. If you get them right, move them to a new 'Weekly' pile. 5. Repeat this process until the information is easier to retrieve</p>
<p style="text-align: center;">Past Papers, Mark Schemes and Examiners Reports</p> <p>You can practice your timing and learn the patterns You can identify your weaknesses and reinforce your successes They simulate the stress of the real thing You get to see how they're marked and what examiners look for You'll know what came up in previous years You can identify the command word(s) = what the question is asking you to do i.e. explain, analyse, describe etc... You can identify the trigger word(s) = link to the subject spec</p>	<p style="text-align: center;">Self-Quizzing (SQ)</p> <p>1. Look: Look at the line/section, read, re-read and memorise the content, until you are confident enough to use your practice book to write it down. 2 & 3. Cover & Write: Cover up the section, it is important that you do not look and do not copy so you are testing your memory. Try to recall the knowledge by writing out the section from memory. 4. Check: Open your knowledge organiser and look at the answer – tick the ones you got right and correct the ones you got wrong in a green pen. Do the ones you got wrong again, until you get them right.</p>	<p style="text-align: center;">Acronyms</p> <p>To make an acronym, you take the first letter of each word in a list and then rearrange it to make a memorable word. Top tips for acronym creation: 1. List the information that you need to remember 2. Write down all of the initials of all of the key words 3. Rearrange the letters to form a new word that you will remember</p>
<p style="text-align: center;">Skeleton Essay Technique</p> <p>Is a really useful approach in practicing essay writing without having to write an essay Instead, you produce a sitemap of an essay. This will include: The main heading An outline structure Associated arguments References This technique also helps to train your brain to remember details, select the most appropriate information and create the best structure without having to write the full essay. De-construct and then after periods of remembering the skeleton structure try and re-construct as a full essay.</p>	<p style="text-align: center;">Test your knowledge</p> <p>Free recall: Spend 1-0 minutes filling a blank piece of paper with EVERYTHING you can remember from your revision. Tough it out, think hard and jot down EVERYTHING you know. At the end of the 10 minutes go to your revision notes and find out what you remembered and what you forgot. Then focus on the material you forgot. Quizzes: By creating your own quizzes you are forced to think about relevant questions to pose. In turn, this means you have to understand the answers completely.</p>	<p style="text-align: center;">Mnemonics</p> <p>To create a Mnemonic all you have to do is write down your list of facts or information. As an example try to remember the order of the planets that circle our sun. So the first thing I do is write them down in order: Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune Pluto Then you need to take the first letter from each of the planet names: M V E M J S U N P Now, you need to create a memorable sentence or phrase that uses each of the letters above in turn as the first letter of each word in my new sentence...sounds complicated but it isn't: My Very Early Morning Jam Sandwich Usually Nauseates People</p>