

Magma Maths Pilot - Report



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Magma Maths Pilot - Report



1. Executive Summary

Magma Maths has been piloted in schools across the Scottish Borders to assess its effectiveness in supporting numeracy and mathematics. The evaluation gathered feedback from teachers, pupils, and school leaders, alongside an analysis of engagement, differentiation, and formative assessment practices. HMIE thematic inspection in Mathematics, TIMMS and PISA recommendations were also used as part of the overall evaluation.

Key Findings:

- Engagement & Confidence – Pupils found Magma Maths enjoyable, interactive, and supportive, with instant feedback helping them understand mistakes and build confidence in numeracy.
- Differentiation & Personalisation – The platform's ability to tailor tasks to individual needs was highlighted as a major strength, with teachers able to set work at appropriate challenge levels.
- Teacher Workload & Planning – Magma reduced marking time and supported formative assessment by providing insights into pupil progress in real time.
- Alignment with HMIE Thematic Inspection Recommendations – The platform directly addresses national priorities by strengthening differentiation, formative assessment, and engagement in mathematics, areas identified for improvement in the HMIE Thematic Inspection on Mathematics (2024).

Challenges Identified:

- Curriculum Alignment – Some teachers noted that Magma could better integrate with local numeracy progression frameworks.
- Question Variety – There were calls for a broader range of problem-solving tasks.
- Support for Younger Pupils – Some younger learners required additional scaffolding when first using the platform.

Recommendation: Given its strong alignment with national priorities and the HMIE thematic findings, Magma Maths is recommended for wider adoption as a digital numeracy tool to enhance engagement, differentiation, and formative assessment in Scottish Borders schools. Future implementation should ensure curriculum alignment and ongoing teacher support to maximise impact.

The results of this pilot strongly support continued use and further rollout of Magma Maths as part of a broader strategy to improve numeracy attainment.

2. Background and Context

What is Magma?

Magma Maths is a digital platform that helps pupils build numeracy skills through **structured practice**. Instead of focusing on right or wrong answers, it encourages pupils to **show their working**, giving teachers real insight into how they're tackling problems.

Key Features

- **Handwritten Solutions** – Pupils write out their solutions, so teachers can see exactly how they're approaching problems. This helps spot misconceptions and different ways of thinking.
- **Instant Feedback** – Pupils get feedback as soon as they submit an answer, helping them learn from mistakes straight away.
- **Live Heat-map Analytics** – Teachers can see pupil progress in real time, spotting where individuals or whole classes are struggling. This allows them to quickly step in with support, adjust teaching, and keep pupils progressing.
- **Differentiated Assignments** – With 15,000+ questions at different difficulty levels, teachers can set work that matches each pupil's needs.
- **Multilingual & Accessibility Support** – The platform is available in 140 languages, with text-to-speech and translation tools to make learning accessible for all.

Magma is designed to provide live, instant data that helps teachers make informed decisions—whether that's supporting an individual pupil, adapting lessons for a class, or identifying wider trends across a school. At the local authority level, this data ensures support and resources go where they're needed most, helping to improve numeracy outcomes at scale.

Why we chose to pilot Magma

Magma was chosen because it requires students to submit handwritten working, providing live feedback to both learners and teachers. This allows teachers to see student thinking in real time, identify gaps in understanding, and use the collaborative space to highlight correct answers, share working, and facilitate discussions. It promotes best practices in mathematical teaching by guiding effective feedback and classroom engagement. Unlike multiple-choice or syntax-heavy input methods, Magma ensures students write out their answers naturally, reinforcing mathematical reasoning while delivering instant, meaningful feedback.

How Magma Links with wider numeracy improvement efforts

The HMIE Thematic Inspection on Mathematics (2024) highlighted many of the same challenges we felt that Magma would support in addressing—like making maths more engaging, ensuring pupils get the right level of challenge, and improving how teachers support learning.

Numeracy attainment in the Scottish Borders drops, particularly as pupils move from primary into secondary education. This trend reflects a broader national concern identified in the National Thematic Inspection on Mathematics, which highlights that pupil engagement with numeracy declines over time (*p.13, Children and Young People's Views on Learning Mathematics*). The report notes that pupils in



upper primary and early secondary (S1–S3) often find numeracy repetitive and lacking challenge, leading to disengagement, while the step up in difficulty at S4–S6 can feel abrupt and overwhelming (**p.35, Secondary Schools: Young People’s Engagement in Mathematics**). Magma was chosen to directly tackle these issues by providing an interactive, collaborative space that supports metacognition, differentiation, and formative assessment. All elements identified in the report as key for improving mathematical learning (**p.48, Recommendations**).

A core strength of Magma is its collaborative approach, allowing students to share their working and see peers’ strategies, mirroring the principles of Number Talks (**p.16, Quality of Learning and Teaching: Mathematical Language and Vocabulary**). This ensures pupils are not only solving problems but thinking aloud, reflecting on their methods, and engaging in structured discussions. Teachers can use the shared space to highlight effective working, correct misconceptions in real time, and guide learners to worked examples and relevant resources, making differentiation more effective (**p.10, Main Findings: The Importance of Differentiation**). This supports teachers in structuring discussions that deepen mathematical thinking and encourages pupils to see multiple problem-solving strategies—an approach strongly recommended in the thematic inspection.

Magma also enhances formative assessment by providing instant feedback to both pupils and teachers, allowing misconceptions to be corrected before they become embedded (**p.42, Secondary Schools: Assessment and Feedback**). Unlike static assessments that only capture final answers, Magma enables real-time intervention, ensuring that pupils receive support at the point of need, rather than after assessments have been completed (**p.10, Main Findings: Strengthening Formative Assessment Practices**). At a school and local authority level, Magma also helps identify trends in pupil misconceptions across curriculum areas, making it a powerful tool for targeted curriculum improvement.

Another key feature is Magma’s integration with DNA assessments, a standardised approach for evaluating mathematical understanding across year groups. Schools can create, upload, and track assessments within the platform, aligning with the thematic report’s emphasis on improving assessment approaches to better track progress and inform teaching (**p.48, Recommendations: Improving Assessment Practices**).

Lastly, the engagement benefits of digital tools are well-documented in the thematic inspection, which found that digital platforms can significantly improve pupil engagement and confidence in mathematics when used effectively (**p.16, Quality of Learning and Teaching: Digital Technology in Mathematics**). Magma aligns with this by offering a digital-first, intuitive platform that keeps pupils actively engaged while maintaining a strong emphasis on handwritten answers and working, avoiding the barriers created by syntax-heavy input methods.

By addressing differentiation, formative assessment, real-time feedback, Number Talks methodology, and curriculum-wide insight, Magma is a tool for student learning but also a system-wide approach to improving numeracy outcomes at both the classroom and policy levels.

This report looks at how Magma Maths has been used, what impact it’s had on pupils, teachers and Leaders.



3. Methodology

3.1 Data Collection

The evaluation of Magma Maths was based on a mix of quantitative and qualitative data gathered from multiple sources:

- **Teacher Feedback** – Surveys and structured discussions were conducted with teachers using Magma Maths, focusing on its impact on lesson delivery, pupil engagement, and differentiation.
- **Pupil Feedback** – Pupils were surveyed to assess their experience with Magma Maths, including their confidence in numeracy, ease of use, and perceptions of improvement.
- **Numeracy Attainment Data** – Schools provided assessment data to compare pupil performance before and after the introduction of Magma Maths.
- **Head Teacher interviews** – Schools with high engagement were examined in more detail to understand best practices and challenges in implementation.

3.2 Data Analysis

To ensure a well-rounded understanding of Magma Maths' impact, we used:

- **Thematic Analysis** – Qualitative responses from teachers and pupils were reviewed to identify recurring themes in their feedback.

3.3 Limitations

While this report provides key insights, there are some limitations to note:

- **Variability in Implementation** – Schools used Magma Maths in different ways, making direct comparisons between them more complex.
- **Changes to Leadership** - There were substantial changes to the leadership of schools who started the project and most of the feedback has come from the schools with consistency in their leadership over the trial period.
- **Timeframe of Data Collection** – The study was conducted over **Aug 24 - Jan 25**, which may not fully capture long-term impact.
- **Self-Reported Feedback** – While teacher and pupil feedback is valuable, self-reported data may include some bias.
- **External Factors** – Other numeracy interventions running alongside Magma Maths may have influenced attainment results.

3.4 Future Data Collection

To build a clearer picture over time, future evaluations should:

- Track long-term pupil progress beyond initial implementation.
- Standardise implementation approaches across schools for better comparisons.
- Expand teacher training insights to see how professional development impacts effectiveness.

4. Teacher and Pupil Feedback

4.1 Teacher Perspective

Engagement and Usability

The majority of teachers reported using Magma Maths regularly in their teaching, incorporating it into lessons on a daily or weekly basis. Most teachers found that it helps them better meet individual pupil needs, particularly through instant feedback and structured practice.

Teachers highlighted that Magma Maths is easy to integrate into lesson planning, and pupils generally use it independently with minimal teacher intervention. Most teachers noted that it reduces marking time and allows for more targeted support based on individual progress. However, a few teachers mentioned that younger pupils may require more initial guidance when first using the platform.

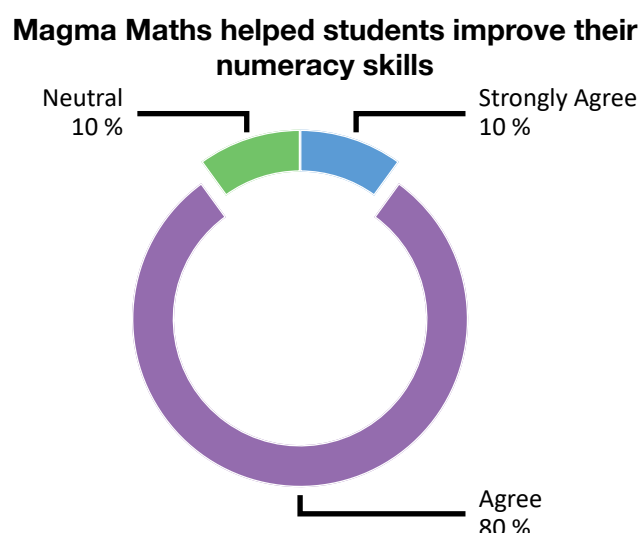
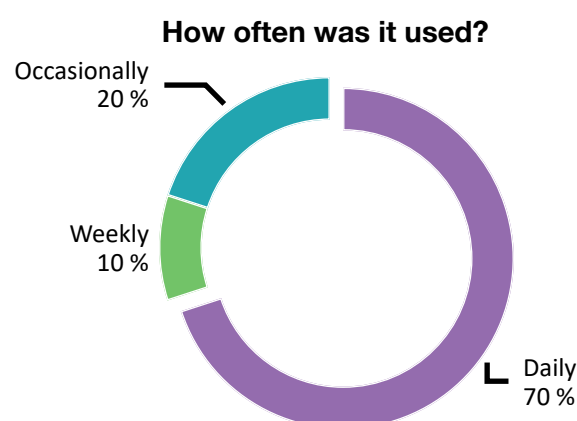
Impact on Lesson Delivery

Most teachers reported that Magma Maths provides valuable insights into pupil progress, allowing them to adjust their teaching in response to real-time data. The majority of teachers stated that they have adapted their teaching methods to make better use of the platform's tools, particularly the heat-map analytics, which help them identify common misconceptions and areas where pupils need extra support.

Teachers particularly valued the ability to see pupils' working rather than just final answers, which has improved their understanding of how pupils approach problem-solving. Many have used this feature to inform whole-class discussions and interventions, making it easier to differentiate tasks based on ability levels.

Confidence in Answering Questions

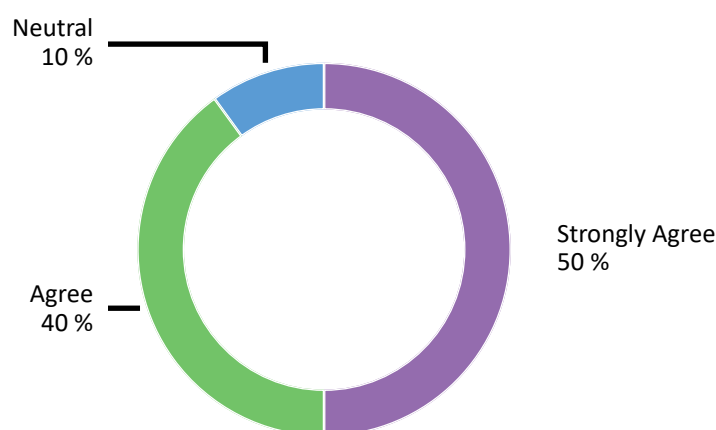
Almost all teachers reported that Magma Maths has helped pupils become more confident in answering maths questions independently. The platform's instant feedback allows pupils to quickly understand mistakes, reinforcing learning and reducing anxiety around getting answers wrong.





From the responses:

- Almost all teachers either strongly agreed or agreed that Magma Maths has improved student confidence in answering questions.
- Most teachers highlighted that pupils are now more willing to attempt challenging questions, knowing they will receive immediate feedback and support if they make errors.



Magma Maths gives students more confidence in answering questions independently

"It's a useful tool for revision and practice. Pupils can see their mistakes straight away and fix them."

Challenges and Areas for Improvement

While overall feedback was positive, teachers identified a few areas for improvement:

- **Alignment with Curriculum** – Some teachers suggested that Magma Maths could better align with local progression frameworks to ensure consistency across schools. It should be noted that if we were to roll out Magma at a whole LA level Magma would develop resources based on our need and the Breakthrough curriculum on top of the DNA resources they've added already.
- **More Diverse Question Formats** – A few teachers highlighted the need for greater variety in question types. There was a feeling Problem solving questions could be improved.
- **Adaptive Learning Features** – Some teachers suggested that Magma Maths could automatically direct pupils to additional practice in weaker areas in addition to them having access to free practice areas of the app.
- **Support for Younger Pupils** – A few teachers noted that early years pupils might need extra scaffolding when first using the platform.

Teacher Feedback Summary

Despite these areas for improvement, most teachers found Magma Maths to be a valuable resource, particularly for its instant feedback, ease of differentiation, and ability to track pupil progress in real time.

Overall, teachers have strongly endorsed Magma Maths as a valuable tool for supporting numeracy learning. The ability to provide instant feedback, personalised differentiation, and meaningful formative assessment were highlighted as key strengths. Teachers also noted that Magma reduces workload, enhances engagement, and supports effective learning practices.

The teachers said:

"Magma Maths provides instant feedback for pupils, reduces marking, gives an overview of pupil success, and has a built-in reader to support learners. It includes a range of questions, including worded problems with suitable vocabulary, and allows teachers to set practice based on individual needs."

"The ability to differentiate easily allows children to feel relaxed about their levels due to the privacy it offers. Tracking is done for you, so monitoring is quicker, allowing teachers to respond more effectively to children who need extra support or challenge."

"It's a useful tool for revision and practice. Pupils can work at their own pace, making it ideal for independent learning, reinforcement of taught concepts, and extension tasks."

For more details on Teacher's feedback please click here to see Appendix 1.

4.2 Pupil Perspective

Engagement and Enjoyment

The majority of pupils reported that they enjoy using Magma Maths in their lessons, with many highlighting that it makes maths more engaging and interactive. Most pupils agreed that Magma Maths makes maths lessons more fun, and stated that they look forward to lessons where Magma Maths is used.

"I like the most is that it is a fun way to learn maths."

Focus and Learning Impact

Most pupils found that Magma Maths helps them stay focused during lessons, with many mentioning that the interactive format keeps them engaged. The majority of pupils also stated that Magma Maths helps them understand maths better, reinforcing key concepts through structured practice.

"Getting to write it down helps me see my mistakes and understand better." "I like how it lets you redo your question if you get it wrong." "That you can work at your own pace."

Pupils also appreciated that Magma Maths provided support for different learning needs, such as reading support for numeracy questions, which ensured they could fully engage with tasks.

"It reads the questions for you."

Confidence in Answering Questions

Almost all pupils reported that Magma Maths has helped them feel more confident when solving maths problems. The platform's instant feedback was repeatedly highlighted as a key factor in reducing anxiety around making mistakes.

"If I get stuck, I can go back and figure it out." "It helped me go at my pace."



This aligns with teacher feedback, which also emphasised that pupils are more willing to attempt challenging questions because they know they will receive immediate support.

Reinforcing Good Mathematical Practice

A key strength of Magma Maths is that it encourages pupils to show their working, which reinforces good mathematics habits. Some pupils initially found this challenging but the benefits in helping them break down and understand problems more effectively is important to develop. This pupil didn't appreciate having to show their working.

"So you don't have to show your work—say $845+546$, if I know it in my head, I don't need to write it down.

Suggested Improvements

While most pupils were positive about Magma Maths, some suggested areas for improvement:

- More control over difficulty levels – A few pupils wanted the option to choose their own challenge level rather than the one selected by the teacher.
- More flexibility in skipping questions – A few pupils found certain questions difficult and wanted more control over their progression. This is possible but set by teacher.

Overall Impact

Overall, most pupils felt that Magma Maths provides a useful tool for improving their maths skills. Many pupils said that it has helped them with revision, practice, and understanding difficult concepts

"[Magma Maths] Helped me understand maths more."

5. Head Teacher Perspectives

5.1 Ease of Implementation and Teacher Adoption

Head Teachers consistently praised Magma Maths for its quick setup, ease of use, and minimal training requirements. Schools where digital tools were already embedded in teaching found it particularly easy to integrate.

"Certainly one of the best apps we've been able to access here in SBC—quick to set up, intuitive, and easy for teachers to start using." – Head Teacher

Magma's launch event and hands-on teacher training played a significant role in securing early adoption.

"The fact that the Magma team came across to Scotland to speak to us in person made a real difference. They knew their product inside out and showed us exactly what it could do. That launch event really got teachers on board." – Head Teacher

Schools with teachers who are early adopters of technology found Magma was picked up quickly.

"Maybe I've been lucky, but my teachers are quite early adopters. If they like the look of something, they'll give it a go fairly quickly." – Head Teacher

5.2 Use in Schools and Impact on Planning

Magma Maths is used in multiple ways across schools, including:

- Daily numeracy rotations for structured practice
- Reinforcement of new learning through teacher-assigned tasks
- Retrieval practice for consolidating prior learning
- Intervention groups for targeted support
- Formative assessment to guide lesson planning

"The older children in P6 and P7 are using it every day—for both practice and retrieval, as well as reinforcing new learning. Teachers assign tasks that directly connect to what they've taught in class." – Head Teacher

"Magma Maths has been a great addition to the suite of resources available to staff and pupils on their iPads. Pupils enjoy using the platform as it is more interactive and allows them to show their working, helping teachers gain insight into their thinking and understanding." – Head Teacher

Teachers valued the formative assessment tools, which helped them spot misconceptions quickly and provide timely interventions.

"The formative assessment features are invaluable in allowing teachers to identify gaps in understanding. Teachers can allocate tasks to suit the specific needs of individual pupils." – Head Teacher

Magma also streamlined lesson planning and differentiation, allowing teachers to use assessment data to tailor instruction.



"Teachers can take an assessment, see results immediately, and then tailor follow-up questions accordingly. It's responsive to the data they receive, which has simplified planning and differentiation." – Head Teacher

The ability to differentiate at scale was a major strength, enabling personalised learning for every pupil.

"A teacher might have differentiated three ways in a lesson before, but now they can have 25 different levels of differentiation happening in one class because it's easy to set up and responsive to each pupil's needs." – Head Teacher

Head Teachers reported high engagement levels, particularly in upper primary and early secondary. Pupils found Magma interactive and engaging, and the ability to write out answers helped deepen understanding.

"Pupils enjoy using the platform to support their learning in numeracy as it is more interactive and allows them to show their working. This gives teachers real insight into their thinking and understanding." – Head Teacher

"Engagement levels from pupils are really high. They're keen to do their Magma tasks, and teachers have noticed them becoming more independent in their learning."

– Head Teacher

The instant feedback provided by Magma was a key factor in building pupil confidence.

"The strength of Magma is that pupils can answer a question, get instant feedback, and that really affirms them. That's why they enjoy it." – Head Teacher

Some pupils also benefited from accessibility features such as text-to-speech, particularly those with reading difficulties.

"A high proportion of children struggle with reading in numeracy, so the ability to have questions read aloud, and to listen to them again if needed, is a huge bonus."

– Head Teacher

5.4 Challenges and Areas for Improvement

While the overall response was highly positive, Head Teachers noted some challenges in implementation:

1. Ensuring Curriculum Alignment

Some teachers requested clearer links between Magma Maths and local numeracy progression frameworks. Magma has committed to developing bespoke resources to align with the Breakthrough Curriculum if adopted at the local authority level.

"A clear link between the numeracy progression pathway and Magma would be a game changer. If we can match lessons directly, it will make planning even more efficient."

Head Teacher



In addition to the DNA assessments being uploaded link directly to the Breakthrough curriculum would be supported by Magma if we were to invest in it for the whole LA.

2. Supporting Teacher Confidence in Digital Learning

Some lower primary teachers required additional training and support to fully integrate Magma Maths into their lessons.

"We've done a lot of work on pedagogy and numeracy instruction, and Magma is just one part of that. Some teachers need a bit more time and support to integrate it fully."

– Head Teacher

3. Stylus Availability

Some initial concerns about access to styluses were raised. However, Magma Maths has confirmed they will supply a basic non-smart stylus for every licence, ensuring all pupils can fully utilise the writing-based features.

"Styluses were an issue at first, but Magma has now confirmed they'll supply one per licence. That should help remove any barriers." – **Head Teacher**

5.5 Overall Recommendation

All Head Teachers strongly recommended Magma Maths, highlighting its impact on engagement, differentiation, formative assessment, and planning.

"100%—this is something the council should invest in. The level of differentiation possible now is far beyond what was achievable before, and it's making a real difference."

– Head Teacher

"Magma Maths is a valuable tool in promoting a deeper understanding of maths concepts through interactive and engaging activities. Feedback from staff and pupils has been overwhelmingly positive." – **Head Teacher**

Some schools initially had reservations about another digital tool but were pleasantly surprised by its impact.

"I was a bit sceptical at first. We've had so many apps come and go, but this one has really shown its value. Teachers and pupils are fully engaged, and it's become an integral part of numeracy teaching." – **Head Teacher**

While Magma Maths alone is not responsible for all numeracy improvements, it is well-aligned with best practices in digital learning, differentiation, and formative assessment, making it a valuable long-term tool for improving numeracy outcomes at scale.

6. Worldwide Impact

There have been a number of research pieces and data that has come from studies lead by Magma but also independently lead by education authorities and schools that have used it. This section will cover some of these in more detail but will also highlight finding from PISA and TIMS.

Magma hosts a range of case studies and evidence lead programmes on their website. These can be found [here](#).

PISA Recommendations on Digital Tools for Learning and Teaching in Mathematics:

The Programme for International Student Assessment (PISA) has provided insights into the integration of digital tools in education and their impact on student outcomes.

Moderate Use of Digital Devices: PISA findings indicate that students who use digital devices moderately for learning in school tend to perform better and report a greater sense of belonging. Specifically, students who spent one to five hours daily learning on digital devices achieved better learning outcomes than those who did not use them.

Teacher-Led Digital Integration: The data suggests that teacher-led or combined student-teacher uses of digital technologies tend to be more effective. This approach ensures that digital tools are integrated purposefully into the curriculum, enhancing learning experiences without causing distractions.

Introduction of Magma Maths in Swedish Schools

Magma Maths was adopted at scale across Sweden starting in 2020, with over 80% of schools now using the platform.

While Magma is not the only factor, it aligns with broader improvements by supporting key educational priorities:

Structured Practice & Immediate Feedback – Helps students build fluency and correct mistakes in real-time.

Data-Driven Teaching – Teachers use Magma’s analytics to tailor instruction to student needs.

Equity in Access – Digital tools like Magma help provide consistent numeracy support across schools, regardless of location.

Increased Confidence & Engagement – Pupils in Swedish schools report that instant feedback and structured support make them more willing to attempt challenging problems.

Impact Relative to Other European Countries

Sweden’s rise in TIMSS rankings contrasts with other EU nations where performance remained stagnant or declined.

Sweden’s Grade 8 students outperformed several European peers, moving into the top 10 globally.



Countries like France & Spain saw continued struggles, performing below the EU/OECD average.

Sweden's TIMSS gains result from a combination of strategies, including:

- **Improved teaching approaches**
- **Increased use of digital tools like Magma Maths**
- **Curriculum changes & early interventions**

While Magma Maths alone is not responsible, its widespread use aligns with Sweden's rising performance, reinforcing the importance of well-integrated digital tools in modern mathematics education.



7. Magma and HMIE Thematic Inspection of Mathematics

Magma has the tools and functionality and has been shown in the pilot to address some of the the national thematic inspection's key themes:

- Better Differentiation – Pupils are challenged at appropriate levels through tailored worked examples and differentiated feedback (p.10, Main Findings: The Importance of Differentiation).
- More Effective Use of Feedback – Magma moves beyond right/wrong answers, requiring pupils to show working and allowing for meaningful, formative feedback (p.42, Secondary Schools: Assessment and Feedback).
- Developing Fluency and Recall – Magma enables structured practice of core numeracy skills, preventing skill decay in upper primary and early secondary (p.16, Quality of Learning and Teaching: Developing Fluency and Recall).
- Clearer Explanations and Worked Examples – The collaborative workspace guides pupils to relevant examples and encourages Number Talks-based discussion (p.16, Quality of Learning and Teaching: Mathematical Language and Vocabulary).
- Stronger Use of Digital Tools – Magma integrates digital learning effectively to support engagement and deepen understanding (p.16, Quality of Learning and Teaching: Digital Technology in Mathematics).
- Tracking Progress Over Time – Schools and local authorities can identify trends in pupil misconceptions and adjust curriculum approaches accordingly (p.48, Recommendations: Improving Assessment Practices).
- Encouraging Independent Thinking – Pupils must explain their reasoning and show their working, rather than relying on final answers alone (p.35, Secondary Schools: Young People's Engagement in Mathematics).
- Reducing the Drop-off in Engagement – Magma prevents repetition-based disengagement by providing varied, interactive, and structured problem-solving experiences (p.13, Children and Young People's Views on Learning Mathematics).
- Targeted Support for Struggling Pupils – Teachers can identify gaps early and provide interventions, particularly for those falling behind in upper primary and early secondary (p.10, Main Findings: The Importance of Differentiation).
- Consistency in Teaching Approaches – Schools can use Magma's shared collaborative approach to establish consistent teaching methods aligned with best practices (p.48, Recommendations: Professional Learning and Consistency in Teaching).
- By addressing differentiation, formative assessment, real-time feedback, independent thinking, and engagement through digital learning, Magma is not just a tool for pupil learning but a system-wide approach to improving numeracy outcomes at both the classroom and policy levels.

8. Strength and Challenges

Strengths

The implementation of Magma Maths has provided a range of benefits for both teachers and pupils. The platform has been widely praised for its instant feedback, differentiation capabilities, ease of use, and impact on pupil confidence.

Instant Feedback and Formative Assessment

One of the most frequently highlighted benefits is Magma's ability to provide immediate feedback, helping pupils to learn from mistakes in real time and reducing the workload for teachers.

"Instant feedback for pupils, reduces marking, gives an overview of pupil success, built-in reader to support learners, engaging, includes a range of questions including worded problems with suitable vocabulary, practice mode set to pupil need." – Teacher

Supports Differentiation at Scale

Magma Maths enables teachers to support a wide range of abilities within the same classroom, making individualised learning more manageable.

"The ability to differentiate easily allows children to feel relaxed about their levels due to the privacy it offers. Tracking is done for you, so monitoring is quicker, allowing teachers to respond more effectively to children who need extra support or challenge." – Teacher

Head Teachers also recognised the value of differentiation:

"In the past, a teacher might differentiate three ways in a lesson, but now they can have 25 different levels of differentiation happening in one class because it's easy to set up and responsive to each pupil's needs." – Head Teacher

Ease of Use and Teacher Adoption

Magma Maths has been quick to implement, and most teachers found it intuitive, requiring minimal training to start using effectively.

"Certainly one of the best apps we've been able to access here—quick to set up, intuitive, and easy for teachers to start using." – Head Teacher

Positive Pupil Engagement and Increased Confidence

Magma Maths has had a notable impact on pupil confidence in maths, with students more willing to attempt questions and engage with problem-solving.

"I like how it lets you redo your question if you get it wrong." – Pupil

"I feel more confident trying harder questions now." – Pupil

The reading support features were also highlighted as particularly valuable for pupils who struggle with literacy in numeracy tasks.

"[What I like about Magma Maths is] That it reads it out(questions) to me." – Pupil



Alignment with Data-Driven Teaching Practices

Teachers and school leaders valued the tracking and analytics tools, which provide real-time insights into pupil progress at an individual, class, and local authority level.

"Magma provides useful tracking, so monitoring is quicker, and I can respond faster to support children who need extra help." – Teacher

Areas for Development

Curriculum Alignment

Some teachers noted that certain question sets lacked clear differentiation between stages, making it harder to align with curriculum expectations.

"Some data handling and time activities seem to be the same across a number of year groups. A clearer link between Magma Maths and our progression pathways would help." – Teacher

Head Teachers supported the need for Magma Maths to align more closely with local frameworks, but Magma has confirmed they will develop bespoke content if a full rollout is implemented.

"A clear link between the numeracy progression pathway and Magma would be a game changer. If we can match lessons directly, it will make planning even more efficient." – Head Teacher

Stylus Availability and Writing Tools Some initial concerns were raised about the need for styluses for handwritten working.

Magma Maths has now confirmed they will supply a basic non-smart stylus for every licence, removing this barrier.

"Styluses were an issue at first, but Magma has now confirmed they'll supply one per licence. That should help remove any barriers." – Head Teacher

Adapting to New Digital Tools in Lower Primary

Younger pupils and those in play-based learning settings took longer to adapt to Magma Maths compared to older primary and secondary pupils.

"Further up the school, just seeing positive things. Younger ones needed more initial support, but they're getting there." – Head Teacher

Overall Summary

Magma Maths has been highly effective in supporting numeracy learning and teaching, particularly in instant feedback, differentiation, and engagement. Teachers appreciate its ease of use, reduction in workload, and impact on pupil confidence.

Some challenges remain, particularly in ensuring alignment with curriculum progression pathways and supporting younger pupils in adopting the tool. However, Magma has committed to developing curriculum-aligned content, and teachers have found effective ways to support digital adoption through peer coaching and professional learning.

Overall, Magma Maths has been a valuable tool for enhancing numeracy outcomes, with strong support from teachers, pupils, and school leaders for wider implementation.

9. Recommendation

Based on the findings from this evaluation, Magma Maths has demonstrated clear benefits in improving numeracy engagement, differentiation, and formative assessment. Teachers, pupils, and school leaders have responded positively, with strong support for its instant feedback, ability to support all learners, and ease of integration into teaching practice.

The pilot has shown that Magma Maths effectively supports numeracy learning, with high engagement, positive pupil feedback, and strong teacher endorsement.

Key reasons for adoption:

- Instant feedback helps pupils learn from mistakes in real-time.
- Differentiation is easier, enabling personalised learning for all pupils.
- Data tracking allows for more informed numeracy interventions.
- Reduces teacher workload by streamlining assessment and planning.
- Impact on not renewing on schools and staff already using it effectively

The recommendation is that Magma Maths should be adopted at scale to provide a consistent and effective numeracy support tool across schools, aligning with national priorities for improving mathematics education. The HMIE thematic inspection on mathematics highlights the need for interactive, differentiated learning experiences, effective use of digital tools, and stronger formative assessment practices—all areas where Magma Maths has demonstrated impact. By providing instant feedback, structured differentiation, and real-time progress tracking, Magma Maths supports key HMIE recommendations and offers a practical, scalable approach to enhancing numeracy learning.

Appendix 1: Teacher Feedback in Numbers.

Teacher Comments:

Key Strengths of Magma Maths

1. "Instant feedback for pupils, reduces marking, gives overview of pupil success, built-in reader to support learners, engaging, includes a range of questions including worded problems with suitable vocabulary, practice mode set to pupil need."
2. "Support/challenge for individuals based on ability/needs."
3. "Wide range of resources for children to evidence their learning. The ease of being able to differentiate and allow children to feel relaxed about their levels due to the privacy it offers. Tracking is done for you, so monitoring is quicker and therefore able to respond quicker to children who need more support/challenge."
4. "Great resource, supports implementation of SBCWay."
5. "It's a useful tool for revision and practice. It is useful for individual learners that need to practice specific concepts that are different from the rest of the class."
6. "There are differentiated tasks, including word problems."
7. "It is a useful tool for extension and practice once learners have completed other tasks and learning on a mathematical concept."

Areas for Improvement

8. "Align with SBC way progression, ensure differentiation between stages in all areas (some of data handling and time activities seem to be the same across a number of year groups), end-of-unit assessments that include a mix of questions from across that chapter, opportunity to download completed activity to share via Showbie."
9. "If it could direct children to more practice in areas they don't perform well in."
10. "Even more variety of questions. Some children get frustrated at having to always write on the working whiteboard before they can submit their answer as a lot of questions don't require any working out."
11. "There are a few errors, and some of the problem-solving is very simplistic."
12. "The tasks from year groups don't appear to change distinctly."
13. "I would like comprehensive training so that I may use the service to its potential."

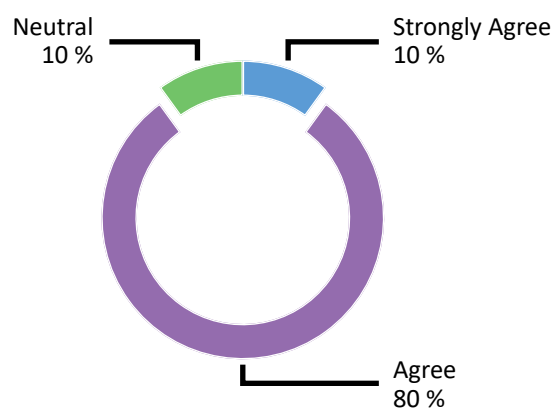
Would You Recommend Magma Maths?

14. "Yes - instant feedback for pupils, reduces marking, gives overview of pupil success, built-in reader to support learners, engaging, includes a range of questions including worded problems with suitable vocabulary, practice mode set to pupil need."
15. "Yes - great support for teachers."
16. "Yes, it is a great resource for children to practice numeracy."
17. "Yes, in moderation. It is not suitable for whole concept work but for practice or extension activities. It is very easy to set and use, and I like the feedback tools."
18. "Yes."

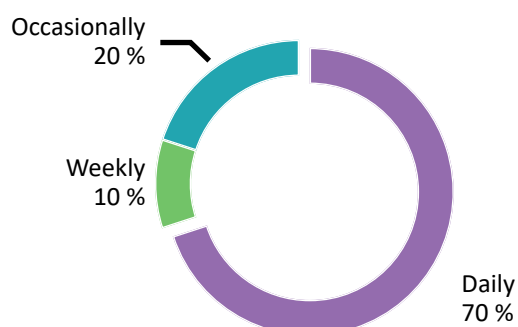
Additional Comments

19. "Love it! Don't want to lose it!"
20. "It's a useful tool for fast finishers."

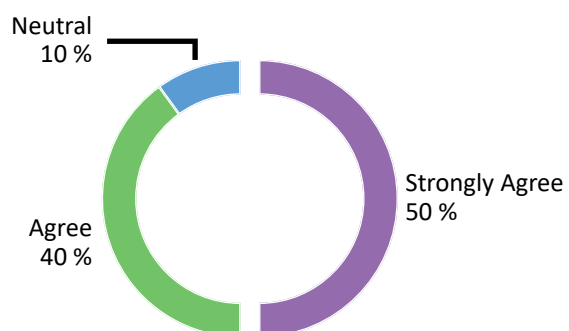
Teacher Data:



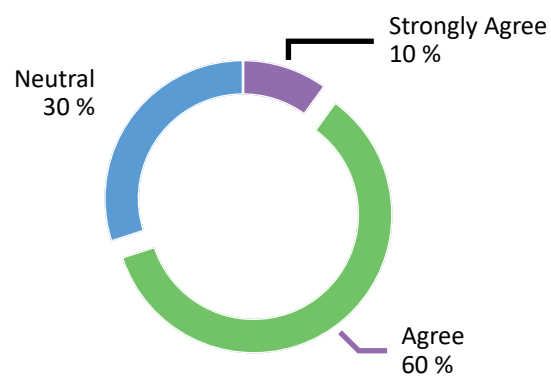
Magma Maths has helped students improve their numeracy skills.



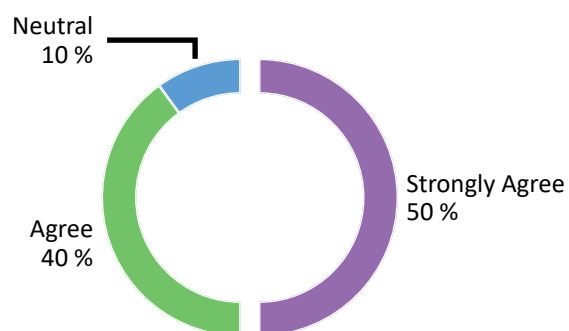
How often do you use Magma Maths?



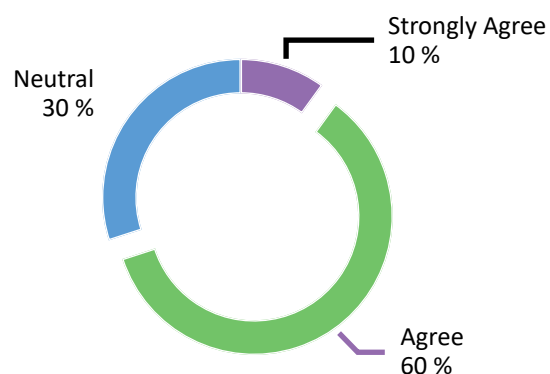
Magma Maths has helped students improve their numeracy skills.



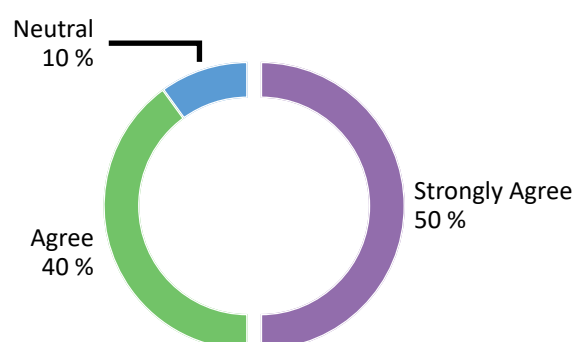
I have observed improvements in students' mathematical understanding since using Magma Maths.



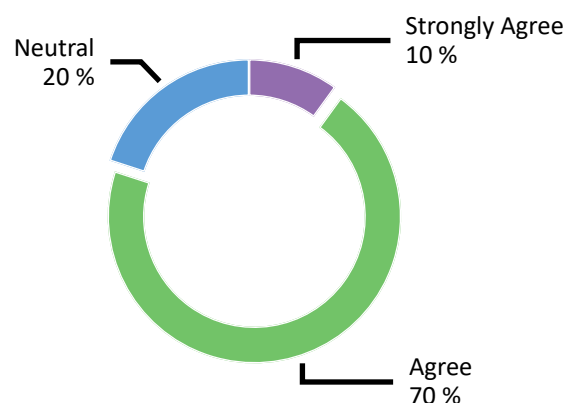
Magma Maths has helped students improve their numeracy skills.



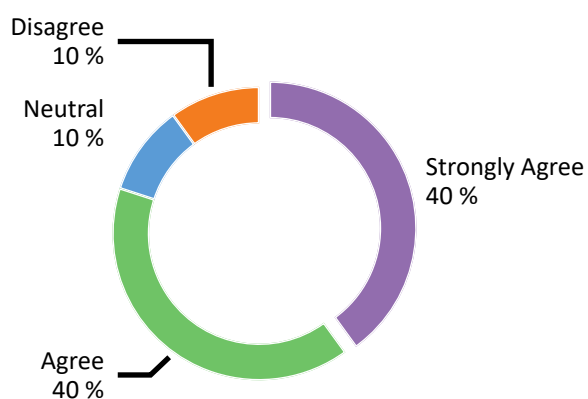
I have observed improvements in students' mathematical understanding since using Magma Maths.



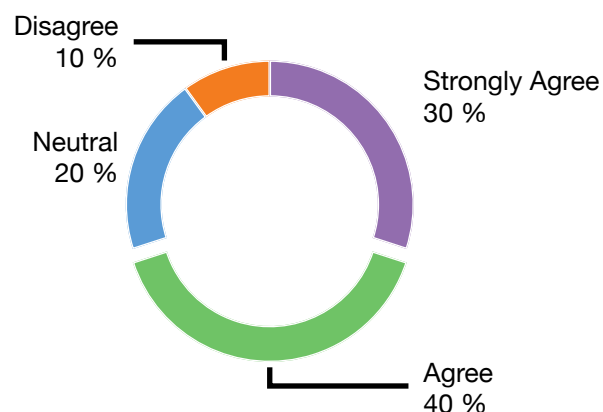
Magma Maths gives students more confidence in answering questions independently



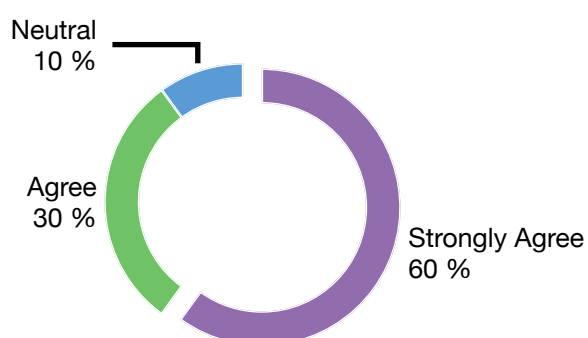
Magma Maths has contributed to students' overall mathematical attainment.



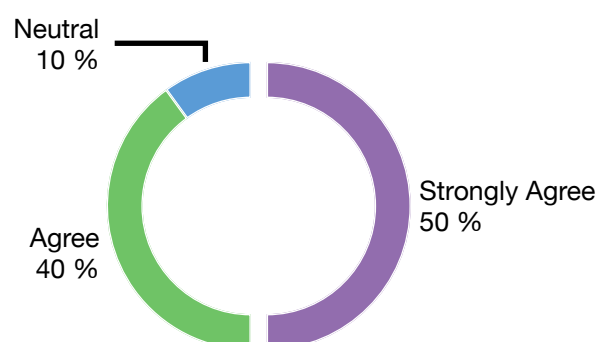
Students show more interest in maths lessons when Magma Maths is used.



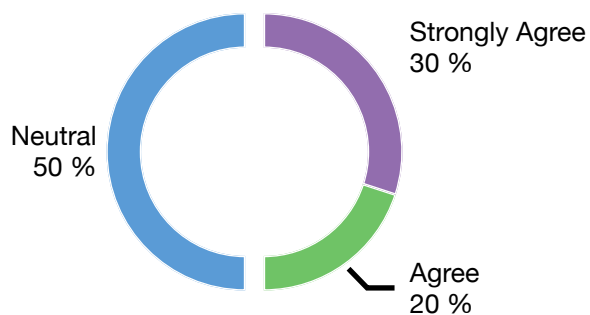
Students participate more actively in lessons involving Magma Maths.



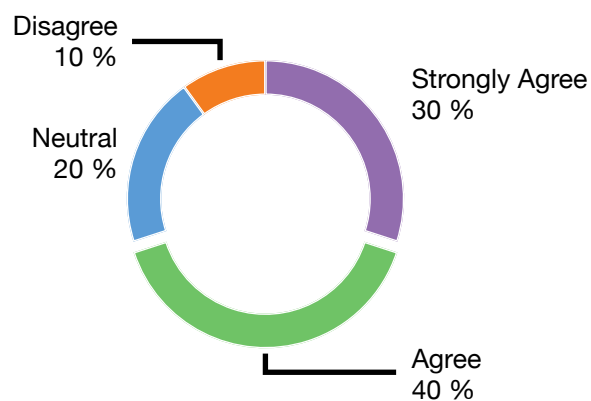
Students enjoy using Magma Maths.



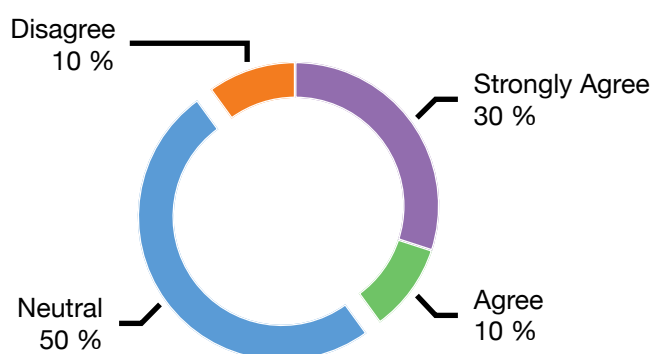
Students are motivated to complete tasks or challenges using Magma Maths.



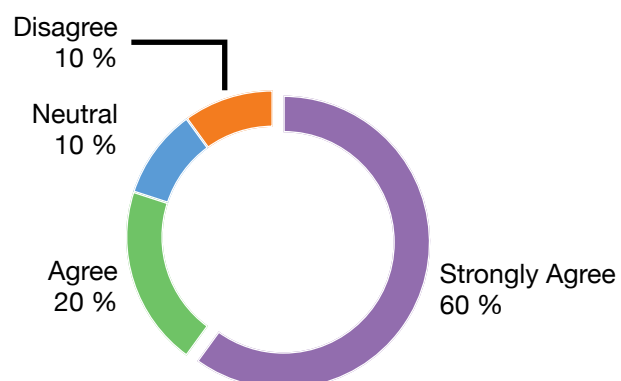
Magma Maths has positively influenced classroom behaviour during maths lessons.



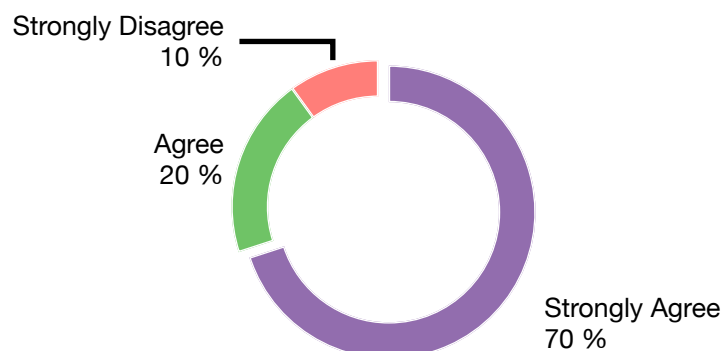
Students stay more focused during lessons that involve Magma Maths.



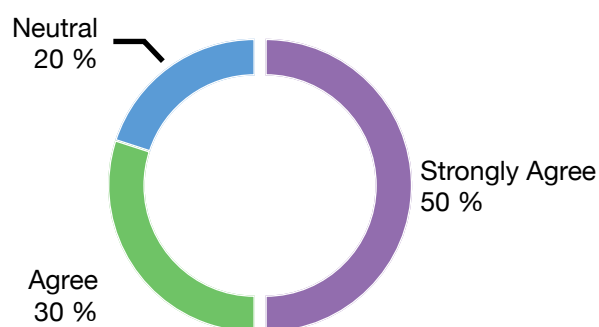
Magma Maths has reduced disruptions in my classroom during Maths lessons



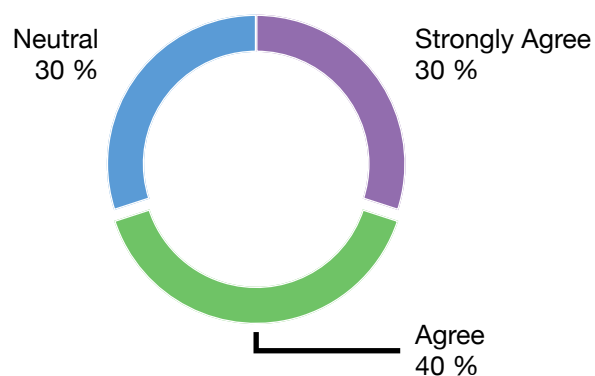
Magma Maths is easy for me to integrate into my lesson planning.



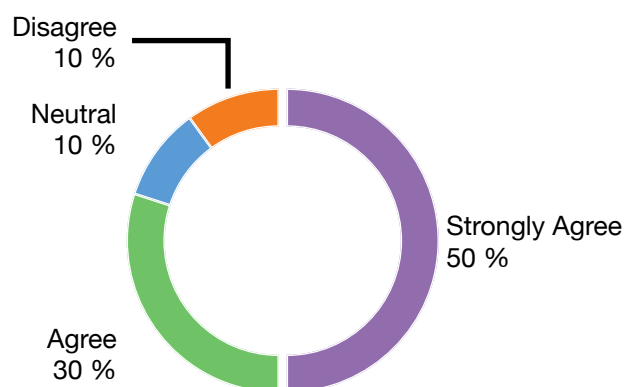
Magma Maths is straightforward for students to use independently.



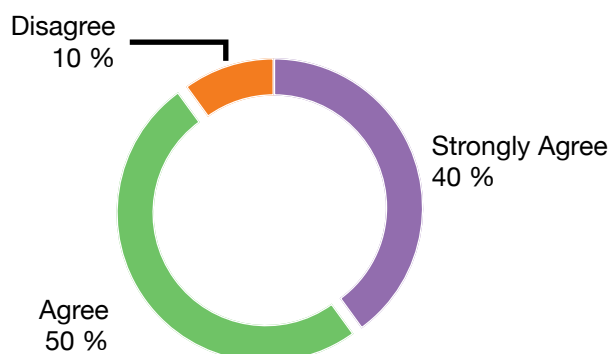
Magma Maths helps me adapt lessons to meet the needs of diverse learners.



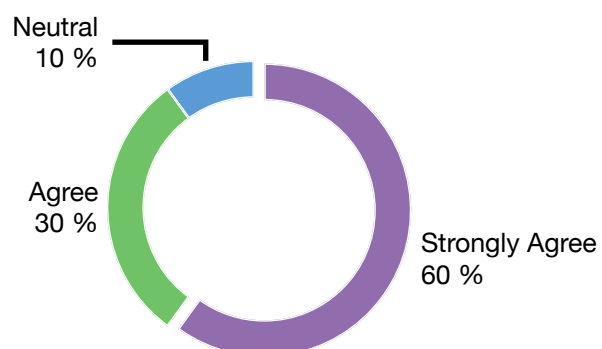
Magma Maths has made planning Maths lessons easier.



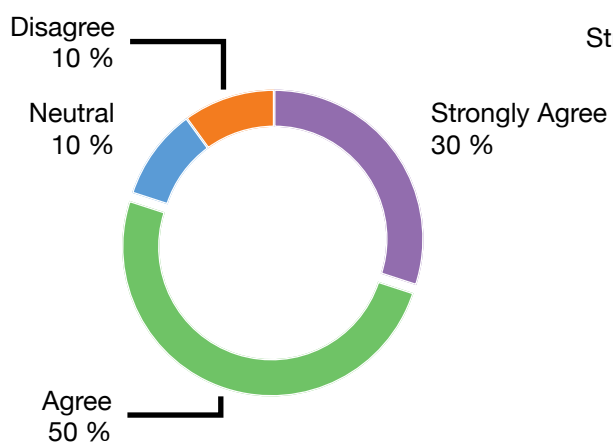
Using Magma Maths has made my teaching more efficient. (reducing marking, creating resources....)



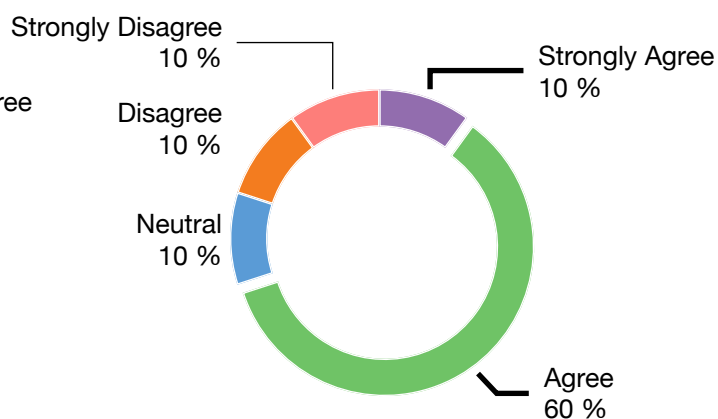
Magma Maths allows me to more easily meet individual student needs.



Magma Maths provides me with insights into student progress that I use to inform



I have adapted my teaching methods to better integrate Magma Maths into my lessons.2



I feel more confident teaching maths since incorporating Magma Maths into my practice.

Appendix 2: Student Feedback in Numbers.

Comments

What do you like the most about Magma Maths?

1. "I like the most is that it is a fun way to learn maths."
2. "Getting to write in down and stuff so I can solve it out."
3. "How they let you work out your sums on the working out bit."
4. "Magma maths is perfect nothing needs to be changed."
5. "It's fun and I like doing maths on iPads."
6. "It helps me get better."
7. "I like how it lets you redo your question if you get it wrong."
8. "I like that you get different types of questions."
9. "It makes maths fun for me."
10. "I like how it helps me learn."
11. "It helps me understand maths more."
12. "It is easy to use."
13. "I like how you can take quizzes instead of the normal way."
14. "I liked how it can show the working out, and I think that helps a lot."
15. "It doesn't have a timer."
16. "It is easy to use and I don't find it too difficult."
17. "You can do lots of different numeracy on it."
18. "The maths."
19. "That you can work at your own pace."
20. "I like practice mode."
21. "That it reads it out to me."
22. "It's like umm really easy because it shows every button and what it is!"
23. "That it's an interactive learning tool."
24. "It has taught me different ways to figure out difficult questions."
25. "I like that it is fun, quick, and easy—whenever you're bored, you can just do practice lessons."
26. "It helped me learn division like $9 \text{ divided by } 81 = 9!$ "
27. "I like to learn on it."
28. "It has helped me with my math."
29. "It's quicker to write."
30. "It reads the questions for you."
31. "Sometimes this is annoying and doesn't let me do the stuff that I want to, but it is helpful and I like it a bit."
32. "Play Magma Math gives me lots of materials to use if I'm stuck on a question."
33. "It helps me out if I don't know how to do something, it can help me with all the materials it has."
34. "It helped me go at my pace."
35. "It helps me understand questions."
36. "You can write things down."
37. "It helps me to understand."
38. "It lets me go at my own pace."
39. "That you don't have to log in all the time."
40. "Writing in your own answers."
41. "The working out pictures help a lot."
42. "That it's fun."



43. "How you can work out problems on the screen."
44. "That it's on my iPad so I don't have to hurt my hand when I do magma and it's easy to use."
45. "It's perfectly fine; it doesn't need to change."
46. "It's flexibility."
47. "I like how it will understand your answer and it has hints if you're stuck."
48. "When I was doing homework, I was very focused because of the no distractions on the website."
49. "I like it because my favourite subject is math."
50. "How it gives you multiple chances even if you get it wrong."

How do you think Magma Maths could be better?

51. "I think it is just right (I think nothing could be better)."
52. "If u could choose your own level."
53. "If it explains the question more and has different levels."
54. "More fun."
55. "I'm not making everyone show their work."
56. "If it had math mini-games."
57. "It could be harder."
58. "More practice ones."
59. "They could add a test mode."
60. "Quite a lot of improvements—like the tools aren't very good, and I don't like the practices because if I get one wrong, it just moves me onto the next question and I don't improve on anything."
61. "It could be more interesting."
62. "Maybe some more harder questions."
63. "You have to show the working out."
64. "If it doesn't show you the answer."
65. "Not making us practice before doing work."
66. "So you don't have to show your work—say $845+546$, if I know it in my head, I don't need to write it down."
67. "Said thank you all the time."
68. "More hints."
69. "I think it would be good if it says how much you improved on your math and gives you XP to get some hints."
70. "By explaining some of the problems better."
71. "With multiplication sums, 3-digit by 3-digit."
72. "If it doesn't glitch."
73. "No show your thinking."
74. "Help bot should be improved, I think."
75. "Try using a pop-up of something sharing like 'try add instead of subtract'."
76. "Maybe less question glitches."

Do you have any examples of how Magma Maths has helped you in maths?

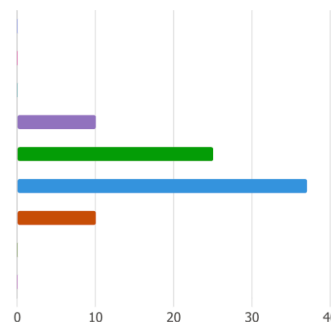
77. "If you are struggling, you can skip the question and go to the next one."
78. "It's helped me figure it out."
79. "It helped me focus more."

80. "It's easier to understand questions."
81. "Understand bit more."
82. "When I do Magma Math, it's easier to work it out."
83. "It helps me with chimney sums mostly because it's really helpful."
84. "I understand more when I'm on Magma Maths."
85. "I'm better at doing more maths."
86. "It helps me with big subtraction sums."
87. "It tests me."
88. "It has the question easily read with the words I know, but some of the questions are confusing."
89. "It helped me learn division like $9 \text{ divided by } 81 = 9!$ "
90. "It helped me in my beat that."
91. "Helped me understand maths more."

Quantitive Responses

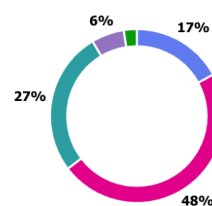
1. I am in

P1	0
P2	0
P3	0
P4	10
P5	25
P6	37
P7	10
S1-3	0
S4-6	0



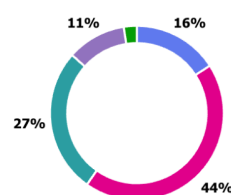
2. I enjoy using Magma Maths in my lessons.

Strongly agree	14
Agree	39
Neither agree nor disagree	22
Disagree	5
Strongly disagree	2



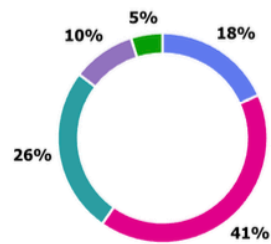
3. Magma Maths makes maths lessons more fun.

Strongly agree	13
Agree	36
Neither agree nor disagree	22
Disagree	9
Strongly disagree	2



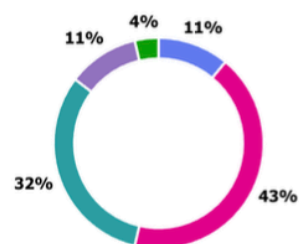
4. I feel more interested in maths when I use Magma Maths.

Strongly agree	15
Agree	34
Neither agree nor disagree	21
Disagree	8
Strongly disagree	4



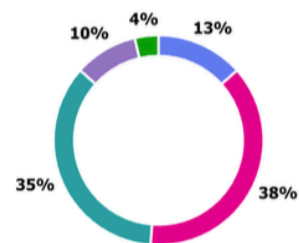
5. I look forward to lessons where we use Magma Maths.

Strongly agree	9
Agree	35
Neither agree nor disagree	26
Disagree	9
Strongly disagree	3



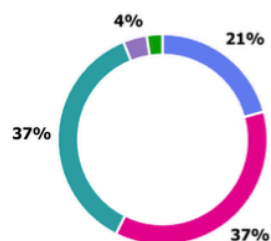
6. Magma Maths keeps me focused during lessons.

Strongly agree	11
Agree	31
Neither agree nor disagree	29
Disagree	8
Strongly disagree	3



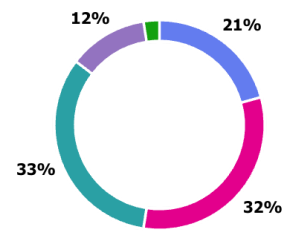
7. Magma Maths helps me understand maths better.

Strongly agree	17
Agree	30
Neither agree nor disagree	30
Disagree	3
Strongly disagree	2



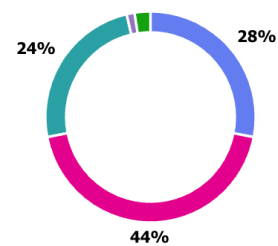
8. I feel more confident solving maths problems when I use Magma Maths.

Strongly agree	17
Agree	26
Neither agree nor disagree	27
Disagree	10
Strongly disagree	2



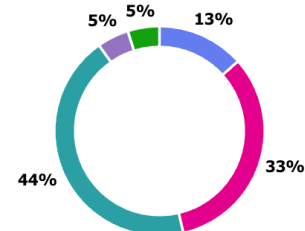
9. Magma Maths gives me good practice for improving my maths skills.

Strongly agree	23
Agree	36
Neither agree nor disagree	20
Disagree	1
Strongly disagree	2



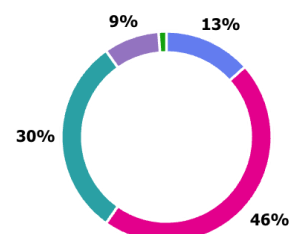
10. I think Magma Maths helps me do better in tests or quizzes.

Strongly agree	11
Agree	27
Neither agree nor disagree	36
Disagree	4
Strongly disagree	4



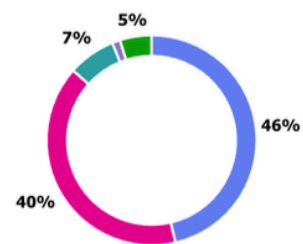
11. I feel like I learn more when I use Magma Maths.

Strongly agree	11
Agree	38
Neither agree nor disagree	25
Disagree	7
Strongly disagree	1



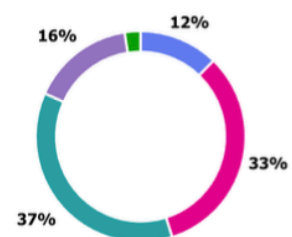
12. Magma Maths is easy to use.

Strongly agree	38
Agree	33
Neither agree nor disagree	6
Disagree	1
Strongly disagree	4



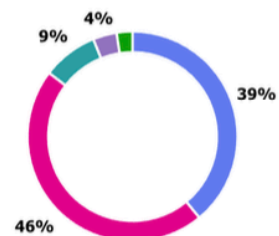
13. Magma Maths helps me even when I find questions difficult.

Strongly agree	10
Agree	27
Neither agree nor disagree	30
Disagree	13
Strongly disagree	2



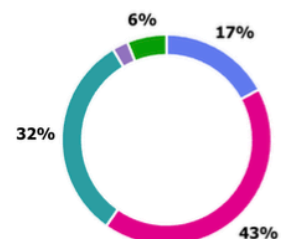
14. Magma Maths allows me to work at my own pace.

Strongly agree	32
Agree	38
Neither agree nor disagree	7
Disagree	3
Strongly disagree	2



15. When I use Magma Maths it helps me stay focused on the work.

Strongly agree	14
Agree	35
Neither agree nor disagree	26
Disagree	2
Strongly disagree	5



16. I feel like I learn more when we work on Magma Maths activities.

Strongly agree	12
Agree	34
Neither agree nor disagree	23
Disagree	10
Strongly disagree	3

