



## Subject Leader Intent, Implementation & Impact

<u>Subject</u>	<u>Maths</u>
<u>Subject Leader</u>	<u>Matt Roberts</u>

<u>Intent</u> <i>Curriculum coverage and planning</i>	<u>Implementation</u> <i>Subject teaching and use of resources</i>	<u>Impact</u> <i>Outcomes: progression towards end of Key Stage outcomes</i>
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<b>INTENT:</b>	
<b>What do you want your subject to look like at Stephen's?</b>	At St Stephen's we believe that every child should be free to develop and receive encouragement to succeed. There is a clear focus on making fluency, reasoning and problem solving challenges available to all learners regardless of their current ability. Through this approach, all children are given a wide range of challenging tasks which encourage the application of problem skills in real-life contexts. This aligns with the ethos of the Mastery Model of teaching mathematics, which St Stephen's is well along the way to having embedded in the school. This ensures the inclusive value mentioned above as well as utilising clear models, structures and representations to teach key concepts, supported by use of manipulatives where appropriate. Knowledge is taught and modelled by the expert teacher and children are then given a journey to apply this new knowledge with purposeful practice and then given challenges to deepen their understanding.
<b>How does it relate to the National Curriculum?</b>	The National Curriculum for Maths is very prescriptive and lays out yearly expectations for all children through their experience in primary school. As such, there is little requirement to look beyond this document and deeper into the concepts. Where some children may meet these objectives before their course of study finishes in that year group, they are challenged with problems that require deeper thinking and application of that objective.



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<b>How does your subject show progression across the school?</b>	<p>Each strand in Maths has a clear progression of skills through the Primary school setting. This progression at St Stephen's can be found in the Progression Ladders document which indicates how these strands are focused on at each stage in the children's learning in this subject. Each year group's objectives are key for a child to gain an understanding in before moving on to the next year group. Teachers are made aware of the Progression Ladders document and can easily access this to see where their class have come from in the curriculum and what the children's next steps will be when they leave their class in the summer.</p> <p>The skills and knowledge taught in maths are also addressed in wider subjects in the curriculum. There are links to learning in statistics with Science where children need to engage in data collection to predict and then analyse results for investigations they conduct. Knowledge of shape is required in some units in Art, for example in a study of Kandinsky in Y6. Diagonal links to our school values which run through all our Curriculum are evident such as 'Friendship' and 'Trust' in the teaching and learning that plays a key role in our Ruler of Reasoning sessions.</p>
<b>What experiences of excellence in your subject will children remember?</b>	<p>Y4-6 have taken part in a regional code-breaking challenge which developed logical reasoning as well as Maths ability. Y6 will be given an opportunity to 'Make £5 Grow' in the Summer Term to develop financial literacy and apply the skills they develop in this subject area. The school have also taken part in NSPCC Number Day to promote a love of mathematics whilst supporting an important cause. Learning will become more sticky as we apply principles of retrieval practice into the teaching and learning of Maths at St Stephen's also.</p>
<b>How does my subject relate to the ethos of the school in terms of RE and Christian values?</b>	<p>As mentioned above, talk and discussion is an important part of Maths teaching and learning at St Stephen's so the values of 'Friendship' and 'Trust' play a huge role as well as children being able to trust that when they make a mistake in their working that Maths in the school are safe lessons to make those mistakes and allow these mistakes to be our friends. There is a drive to develop well-rounded citizens and help our children become</p>



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	<p>excellent members of society and a strong grounding in a quality Maths curriculum will support them in going on to achieve what they desire. This is the passion with which we aspire to bring the best we can as a school in the teaching and learning of Maths.</p>
<p><b>How is my subject an expression of our school population and community?</b></p>	<p>At St Stephen's, our school community is continuously becoming more diverse. As such, the drive on talk, vocabulary and language has taken more priority. As this subject moves forward, it will become even more important to involve more strategies on developing the progress and attainment of children who speak English as an Additional Language. The power of mathematics transcends various languages and all children at St Stephen's will be given the tools to succeed in this area no matter where they go on to in later life.</p>
<p><b>How is your subject made accessible for all learners? (SEND/EAL/GD)</b></p>	<p>The bottom 20% of children at St Stephen's continue to be a priority to teaching staff. Aside from their individualised learning targets, children who fall into this bottom 20% will also be supported by quality-first teaching, targeted intervention in lessons and use of concrete and pictorial representations to scaffold small step learning.</p> <p>EAL children will be supported by a drive on using Talk4Maths strategies in the classroom, ensuring that language and vocabulary are being modelled and taught clearly in Maths lessons, helping these children reach their potential.</p> <p>The Mastery Approach will support children who grasp concepts more quickly to deepen their understanding. They should no longer be accessing learning outside of their age group but rather be deepening their understanding of the concepts they are taught with their peers, preparing them for more challenging problems. This will be provided through developing more problem solving skills in these children, encouraging them to reason and give evidence for their answers as well as teaching others in their peer group.</p>
<p><b><u>IMPLEMENTATION</u></b></p>	
<p><b>How are teaching staff given expert knowledge of your subject to understand key concepts?</b></p>	<p>We are registered to the NCETM and NW Turing Maths Hub. These research-based networks offer free training for teachers and teaching assistants. In 2021-22, one teaching assistant undertook subject knowledge development and the Y1/2 teams took</p>



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	<p>part in the national Mastering Number programme which aimed to improve number sense and skills of subitising with these children.</p> <p>The Maths Lead leads a local Maths network in Trafford of other Maths subject leads who collaborate together and provide high-quality, current training on Maths in primary schools. The Maths Lead then shares this with staff at the school to develop understanding further.</p>
<b>How is subject content designed and delivered in class to enable children to transfer key knowledge to long-term memory?</b>	<p>St Stephen's follows the general structure given by White Rose Maths. However, this is flexible and adapted with discussion between the class teacher and Maths Lead to suit the context and needs of each class and staff team. We use the NCETM Prioritisation Documents to identify what the key prerequisites are for each year group and which knowledge needs to be gained by each cohort before moving on to the next year group.</p> <p>Early Bird Maths forms an integral part of our approach to embed learning further into long-term memory. As our curriculum is blocked into topics to give time to dive deeper into concepts, this does mean that there is not opportunity to review previous topics. In Early Bird Maths, teachers give children questions about what they have learnt last lesson, last week, last term and last year. In doing so, chn get invaluable practice in key skills and concepts by revisiting them which helps to embed it in the long-term memory.</p> <p>At the school we follow a mastery approach which supports this transference of knowledge. Using small, scaffolding steps in the learning process as well as a concrete-pictorial-abstract approach aids children's understanding and linking of key concepts in mathematics.</p>



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	<p>All teachers have access to progression documents which enables them to identify key learning that is learnt in the previous year group as well as what will be covered in the following year after.</p>
<b>How do teachers check understanding during learning and give clear feedback?</b>	<p>Informal assessment is conducted through best practices and following the feedback policy. Teachers are encouraged to give feedback on children's learning during the lesson rather than the following day. This can be done by the teaching team marking throughout the session or encouraging children to self-assess or peer-assess. During class discussion, use of mini-whiteboards and cold-calling is encouraged to keep all children engaged and to check understanding at all stages of the lesson to direct teaching and learning.</p> <p>To reduce workload on staff and improve the effectiveness of feedback, verbal feedback during the session is prioritised. If there are any areas to address following the lesson then teachers are encouraged to use a whole class feedback sheet to address misconceptions and keep a record of these for future reference.</p> <p>Summative assessments are completed once a term to identify the progress and attainment of all children in the school. This is tracked and discussed in pupil progress meetings and plans for the next half term follow this, including interventions and adaptations of teacher planning.</p>
<b>How is key vocabulary taught and understood in your subject?</b>	<p>Working walls are implemented in each classroom and each teacher is encouraged to make key vocabulary an important part of this display. The children are then asked to use these key vocabulary words in their explanations and as an important part of the Ruler of Reasoning sessions that take place where this is assessed, as well as in their regular Maths lessons.</p> <p>The school has a Vocabulary Progression Document that outlines when certain mathematical terms are introduced across the school to highlight which particular words should be taught and understood across a child's learning journey at St Stephen's.</p>



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<b><u>IMPACT</u></b>	
<b>What monitoring exercises do you as a subject leader complete regularly to quality assess the subject?</b>	<p>There are termly monitoring exercises to ensure Maths is kept at a high standard throughout the year. In Autumn these will be learning walks as well as discussions with pupils and teachers about how learning is going at this first stage of the year. This helps identify any concerns or best practices with the subject so that a strong start can be made. The discussions in younger year groups are more focused towards feelings about Maths whilst older learners are encouraged to share what helps them learn well. Later in the year there are opportunities for children to share their work in their books and discuss what helps them learn well in the activities shown. This helps to ensure also that communal practices, such as Early Bird Maths and using a Mastery approach to teaching mathematics, are in use across the school.</p> <p>As well as all the above exercises, a termly Pupil Progress discussion takes place between the Maths Lead and the teaching team. Whilst this discussion focuses on individual child targets, it is also used as a forum to discuss the next steps in the teaching of Maths generally and informs the subject lead on how the curriculum is being covered in each year group as well as any challenges.</p>
<b>How do you identify which children are working at the expected standard and those who need further support?</b>	<p>The Pupil Progress Meetings are an integral part of this process. After completing a suite of assessments (observations in EYFS, written tasks in Y1-6), the teacher uses these assessments to inform their judgement of how far along to working at the expected standard that child is. These results, the teachers informal assessments and the termly expectations are discussed at the Pupil Progress Meeting and targets are set for each individual child. This data is then reported to the senior leadership team and school governors which then informs school development.</p>
<b>What are the strengths you found in your subject after your investigations?</b>	<p>New approaches in developing long-term retention of key knowledge and skills have proven effective. Many teachers commented on the effectiveness of Early Bird Maths</p>



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	<p>and the data shows that steady accelerated progress is being made in general across the subject. Key arithmetic skills have also underpinned this success as they have been a focus when the children returned from the COVID-19 pandemic and they will continue to be so.</p>
<b>What are the next steps for your subject across the school generally that you have identified?</b>	<p>Whilst the Y4 Multiplication Tables Check indicated that we are working broadly in line with national results for this skill, the engagement of the school in times tables practice is still an area to develop and will be a focus of driving improvements earlier on this year. Also, children's skills at problem solving is an area to work on so there will be some development into training in this area. Looking further ahead, it is the vision that we have cohorts of children who love engaging in the mathematical challenge they receive in their lessons and we have some sort of support structure across the school where the older children can support younger children in their learning to model a love of Maths.</p>