St Gabriel's Catholic Primary School

Maths Policy Document

January 2024

Mission Statement

'Nurturing Hearts and Minds'

God's love is at the heart of all that we do at St Gabriel's Catholic Primary School. Hearts and Minds are nurtured in a stimulating and safe environment. We believe that every child is unique and we nurture each child through a creative and rounded curriculum to reach their full potential. Talents are celebrated and differences are respected within a strong, supportive Catholic community.

At St Gabriel's, children learn to love, respect and care for each other and God's entire world. Our school is a place where children are filled with a love of life and learning.

As a school, we are aware of our duties under the Equality Act 2010, and we take account of pupils' race, religion and culture, and of pupils with SEN, a disability and the circumstances of other vulnerable pupils. We aim for this policy to work for the majority of pupils, however on occasion, we understand that adaptations may need to be made depending on circumstance.

Contents

---

1. Aims

The aims of Maths education in our school are to:

- Create a positive, inclusive maths environment where all achieve.
- Provide positive role models in maths by being 'maths enthusiasts' ourselves.
- Help children to develop a growth mindset that enables them to feel confident in approaching all aspects of their maths learning.
- Develop a strong foundation of early maths skills which is then successfully built upon year after year.
- Help children develop automaticity in recalling key maths facts thus enabling them to be successful in the wider maths curriculum.
- Provide early intervention to address misconceptions and help secure knowledge.
- Provide rich challenge for those who grasp the concepts being taught at an accelerated rate.
- Promote a love of maths and an understanding of its wider applications in terms of cross-curricular links, career choices and real-life applications.
- Teach specific mathematical vocabulary that assists children in their understanding and also in explaining and reasoning their own ideas.
- Enable our pupils to acquire the requisite skills and knowledge to be successful, independent and motivated life-long learners.

Intent

At St Gabriel's Catholic Primary school, we are committed to **nurturing the hearts and minds** of all children to ensure that they reach their full potential. We believe that maths is an essential tool for accessing opportunities throughout life and aim to support our children in not only developing their mathematical knowledge but also in growing a love for maths.

In order to help our children develop the mathematical knowledge they need, we follow the national curriculum - taught through a maths mastery approach. Children who master maths acquire a deep, long-term, secure and adaptable understanding of maths as a subject.

It our core belief that all children access high-quality maths teaching and opportunities which enrich their learning. It is broadly assumed that most children will move through the content taught at the same pace, with additional support provided to those who need further practise,

and additional reasoning-based challenges provided for those who acquire a deep knowledge at an accelerated pace.

To ensure maths is inclusive in all aspects, teachers adapt planning and resources where necessary – on both whole-class or individual levels - so that it is accessible for all. A range of well-maintained, high-quality manipulatives are available across the school and all children are actively encouraged to choose to use the resources they need to build their independent learning skills.

Opportunities are provided across all curricular areas for the development and application of **mathematical skills** to help all children not only secure their mathematical knowledge but also to see the value of maths as a subject.
Acquisition of mathematical vocabulary is made a priority through regular modelling and use throughout both the verbal and written aspects of a maths lesson; children are praised for their use of mathematical vocabulary. Vocabulary progression is clearly mapped out in our **Maths Vocabulary Progression** document which teachers actively use to ensure that children are exposed to an increasingly complex and comprehensive mathematical vocabulary.

2. Statutory requirements

Maths is a core subject taught daily. We teach maths following the objectives set out in the national curriculum programmes of study outlined by the Department for Education statutory guidance.

3. Content and delivery

3.1 What we teach.

As previously stated, at St Gabriel's we follow the maths programme of study in the national curriculum taught through a maths mastery approach. We follow the DfE approved Power Maths scheme in KS2, the Primary Stars scheme in KS1 and White Rose Maths in the EYFS. Curriculum content is mapped out in our **Whole-School Maths Long-Term Planning** document. Lessons are sequential and each build on the knowledge gained in the previous lesson(s).

3.2 Early Maths

At St. Gabriel's, children access high-quality maths lessons following a White Rose mastery approach from the very start of their school journey. In Reception, we combine fifteen-minute short bursts of maths teaching each day with lots of opportunities for practise through guided activities, independent play and songs from the Number Fun Portal.
Progression is mapped out in small steps, with an emphasis on practical activities and games. Each child has a 'maths journal' in which they complete short activities that provide a useful record of progress.
Maths is seen as a key component of the wider curriculum and opportunities for maths talk are seized upon throughout the day whether through topic work, reading books or children's play. Creating a maths rich environment is key to developing early maths skills and carefully selected resources are available on open shelving and in an outdoor 'maths shed' for the children to use to practise and revisit their new skills.

3.3 How we teach it (KS1)

The following table is intended for teachers to guide them in their delivery of the Primary Stars scheme.

Primary Stars		
What?	Where/How?	Why?
Starter		
Introduce questions/problems that children can complete independently or in pairs with no prior teaching/input.	Children play games and/or complete activities on whiteboards.	Starter activities revisit skills from previous units (including those taught in previous years) helping to secure skills to memory. Alternative starter activities planned by teachers address misconceptions or revisit key skills which were identified in the previous lesson.
Lesson Introduction		
Introduce the Learning Objective and link lesson content to previous learning and skills.	Learning objective written on whiteboard or slides. Verbal discussion with children.	Children understand what is required of them and what they are aiming to master within the lesson.
Vocabulary		
The key vocabulary that will be used in the lesson is introduced to the children.	Key vocabulary is noted on the maths working wall. Teachers model using the vocabulary using an 'I say, you say' approach.	Children need to use and understand a range of mathematical vocabulary to help them access a wide range of maths, especially problem solving and maths in real life contexts.
Teach		
Teachers use a lesson presentation to teach the key concepts for the lesson.	The lesson presentations feature lots of visual representations, modelling and questions.	A high content of visual representations keep children engaged. Fluency, reasoning and problem solving slides ensure the children are accessing a range of mathematical questions to help them master the key concepts of the lesson.
Independent Work		
Differentiated worksheets and practical activities allow children to practise the skills taught.	Worksheets: Children practise the skills taught by answering a range of varied fluency questions which include a variety of visual representations. Differentiation	Independent practice is key in securing knowledge to long-term memory. The visual representations used support children in solving

	varies the amount of scaffolding per question. Activities: Children use a variety of concrete resources in fun and engaging activities to allow them to practise the skills taught.	problems and understanding abstract ideas.
Reflect		
Children apply their learning in fun games and activities.	The Reflect allows children to reflect on what they have learnt in the lesson and apply it to a final activity.	The Reflect part of the lesson is a useful tool for the teacher to assess how the children have grasped the concepts of the lesson and also how they apply it to a new context.
Challenge		
Children who complete their work then complete additional carefully selected/created reasoning problems which encourage them to work on relationships between information, strategies and missing information.	If a child completes the independent work during the lesson, the teacher checks their work and provides additional challenges to be completed in their maths book. If a child completes an additional challenge question a circled 'c' is noted in their practice book in pink pen.	The national curriculum advises that, *'Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content'*.

3.4 How we teach it (KS2)

The following table is intended for teachers to guide them in their delivery of the Power Maths scheme and supplementary materials.

Power Maths		
What?	Where/How?	Why?
Power-Up		
Introduce questions/problems that children can complete independently or in pairs with no prior teaching/input.	KS1 and Year 3 complete starter activities on a whiteboard, in whiteboard books or using practical resources. Years 4-6 complete starter activities on a whiteboard; in whiteboard books, using practical resources or in their yellow maths book.	Power-Up/Flashback 4 activities revisit skills for previous units (including those taught in previous years) helping to secure skills to memory. Alternative starter activities planned by teachers address misconceptions or revisit key skills which were identified in the previous lesson. Teachers assess progress in these areas through formative assessment using approaches

	Work is self-marked – children see the correct answers & then these are checked by a teacher.	such as 'show me' (whiteboards), 'thumbs,' and in Yrs4-6 formal marking.
Lesson Introduction		
Introduce the Learning Objective and link lesson content to previous learning and skills.	Learning objective written on whiteboard or slides. Verbal discussion with children.	Children understand what is required of them and what they are aiming to master within the lesson. This also gives children a focus/context for when they begin to unpick the **Discover** activity.
Introduce focus vocabulary for the lesson and unpick any unfamiliar words	Vocabulary for the unit being covered is displayed on maths working walls. When introducing vocabulary, encourage children to say the words out loud using the 'I say, you say' approach.	Focusing on vocabulary specific to the lesson will help children develop mathematical vocabulary, build confidence in using mathematical language, tackle reasoning questions and support them in explaining their learning.
Discuss strategies and resources that can scaffold learning.	Show children useful equipment and resources that they may wish to use. Direct them to where they can retrieve it.	This helps children to acquire independence in their approach to maths by allowing them to choose the level of scaffolding that they need each lesson.
Discover		
A **Discover** task gets children to collaboratively solve a problem related to the lesson objective.	Teacher questioning is used to explore a picture with mathematical links before a problem is presented. For example, *"What maths questions could we ask about this picture?" "Will we need more information?" "Could this link with our learning from yesterday?"* During the Discover section children participate in pair, group and whole-class discussions. Children may use manipulatives to help them understand the maths and explain their methods.	By presenting children with a problem related to the skills being presented in the lesson, curiosity around the learning is generated. Teachers may identify gaps in skills/understanding at this point which can then be addressed before moving on. Through exploring a problem, children are stimulated to apply understanding and strategies they already have, before being introduced to new concepts, thus making links with existing learning.
Share		
After children have been introduced to and explored the **Discover** problem, teacher modelling then explicitly	Teachers will model step-by-step how to complete the problem and may use a whiteboard, interactive tools (e.g. number lines) or concrete resources.	This component of the lesson explicitly teaches children the steps they will need to achieve the lesson objective, master the concepts and complete their independent work successfully.

teaches the method/strategies to be used in the lesson.	Particularly in KS2, it may be appropriate to explore alternative methods at this point.	
Think Together		
Children apply the knowledge they have just acquired in a series of problems. These problems are progressive and include a challenge question.	This work may be completed in groups, pairs or independently, with different children completing the work at this point with differing levels of scaffolding. Children are encouraged to use manipulatives and other resources to support themselves. Answers may be recorded on whiteboards or in maths books depending on the class and activity.	This section of the lesson allows children to practise the skills taught using the 'I do, we do, you do' approach. This assists the teacher is identifying misconceptions and those who may need additional scaffolding before independent work begins. This section also builds confidence and helps foster development of a growth mindset.
Misconceptions		
Children are encouraged to think of common mistakes that could be made within the unit they're focusing on.	These mistakes are called 'The Greatest Mistake' or 'Spot the Mistake' and are noted on maths displays where it can be frequently referenced during the lesson. Children who identify that they have made 'The Greatest Mistake' are celebrated and encouraged to share their learning.	Mistakes are celebrated as part of the learning process. The benefits of identifying common misconceptions (mistakes) before embarking on independent work include helping children to expect – and not fear - obstacles and challenge, whilst training them in identifying and self-correcting mistakes.
Independent Work		
Children complete independent activities in their Power Maths practice books.	Children progress through the questions. Some children may be asked to begin on a later question. Children date their work using the short date. In Years 4-6, children write the date in Roman Numerals. Questions get progressively more challenging. Initial questions contain pictorial representations and more scaffolding to guide children. Further questions then build fluency through a varied fluency approach. Final 'challenge' questions allow children to use	Independent practice is key in securing knowledge to long-term memory. The progression of and range of questions help children to build their declarative, procedural and conditional knowledge step-by-step.

	conditional knowledge to apply their learning in a different way/context. Children are encouraged to be independent, accessing the resources they feel they need. If children feel 'stuck' they are encouraged to use the '3 before me' strategy initially before they are given gentle guidance and scaffolding to help them solve the problems themselves. A quiet working environment at this point of the lesson is encouraged.	
Marking		
Teachers display the answers to the independent questions on the IWB.	Children mark their work themselves using a purple pencil in KS1 and purple pen in KS2, ticking or dotting answers (Yrs 2-6). In Reception and Year 1, teachers mark (alongside children where possible). Teachers spend a little longer unpicking the challenge question. Whenever possible and in later year groups, children who have accessed the challenge question are encouraged to explain, reason and model their own approaches to solving the challenge to others. Children self-assess using traffic light colours to circle by the lesson title (green, yellow, red).	Children self-mark as it encourages them to critically reflect their own learning progress and performance. Ownership of marking encourages children to be more responsible for their own learning. As not all children complete all of the questions every lesson, unpicking the challenge question gives all learners the opportunity to build conditional knowledge. Through explaining their approach to solving the problem, children are building their reasoning skills and independent, verbal use of mathematical vocabulary. Teachers check books as soon after the lesson as possible, using the reflect (see below) as the key assessment point but also checking answers to identify children who have not grasped the concepts of the lesson. Simple use of green ticks, pink pen for modelling or further questions and stickers or stamps to praise are used by teachers.
Reflect		
All children independently	In most lessons, the Power Maths Reflect in the practice	A further independent question at the end of the lesson allows

complete a reflect activity at the end of each lesson.	book is used. Sometimes the Reflect will be used as a class discussion or plenary. If the reflect doesn't sufficiently assess children's knowledge or doesn't in a way that is accessible to all children, then teachers have ownership of choosing a suitable assessment question. Teachers may display key pieces of mathematical vocabulary or direct certain children towards aspects of the maths display that will scaffold their answers. Teachers mark the reflect after the lesson. Children are praised for using mathematical vocabulary through team points or verbal/written praise.	teachers to quickly identify those children who aren't confident and have not secured knowledge in the lesson. If children haven't answered the Reflect question in a confident way or have made mistakes, then same-day intervention (see below) is used to support them. Praising use of mathematical vocabulary helps children to see the value in explaining their ideas (in a relevant and concise way.)
Same-Day Intervention		
Children who have not secured knowledge in the lesson are identified to revisit the content in a supported manner before the next lesson.	Power Maths provides 'strengthen' guidance and activities that may be used to support children. Additional activities may include: • Use of manipulatives • Further modelling and practise using the 'I do, we do, you do,' approach. • Resources from Twinkl's – aligned - 'same-day intervention' planning or White Rose resources	The national curriculum advises that, *'Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.'*
Challenge		
Children who complete the work in the practice book then complete additional carefully selected/created reasoning problems which encourage them to work on relationships	If a child completes the independent work during the lesson, the teacher checks their work and provides additional challenges to be completed in their maths book. The children may also use their 'Mental Workout' books to reinforce basic number skills.	The national curriculum advises that, *'Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content'.*

between information, strategies and missing information.	If a child completes an additional challenge question a circled 'c' is noted in their practice book either by themselves in pencil or by a teacher in green pen.	
Maths Moments		
3-4 times per week mini-maths sessions where children revisit and overlearn key maths facts to build automaticity.	Each teacher decides on a time that suits the needs of their class. In some classes, the children are given the responsibility to shout out, 'Let's have a maths moment' during a transition point in the day (such as collecting or giving out books and tidying up). That child will then lead the rest of the class in a Rolling Numbers chant. Maths Moments are whole-class five sessions where all children participate in songs, chants, questions and games. To decide the focus for maths meetings, teachers look at the skills children will need in upcoming maths lessons, gaps identified in current lessons and general key maths facts.	Ensures that children have time aside from the main maths lesson to focus on committing key facts to memory. Enables automaticity of key maths facts. Builds confidence in mental arithmetic. The fun, engaging nature of each session hooks children into maths.

3.5 Fluency

At St Gabriel's we recognise the importance of supporting children to develop automaticity in their recall of key maths facts. There are many ways in which we ensure that children continually practise key number fact recall.

- Times Tables Rockstars
- Number Fun Portal Songs
- Maths 2Dos set on Purple Mash
- Maths Moments
- Flashback 4s
- Power Ups

Children across the school enjoy participating in these daily sessions which ensure that children have time aside from the main maths lesson to focus on committing key facts to

memory. The sessions enable automaticity of key maths facts, build confidence in mental arithmetic and because of the fun, engaging nature of each session, hook children into maths.

4. Inclusion

At St. Gabriel's Catholic Primary School, we believe that all children have an equal right to a full and rounded education which will enable them to work confidently towards reaching their full potential and feel that they are a valued member of the wider school community. We provide teaching and learning for all children to gain access to a broad, balanced and appropriately differentiated curriculum.

At St Gabriel's our objectives are:

- To identify any barriers to learning at the earliest opportunity.
- To develop effective whole school provision management of support for pupils, focusing on inclusive practices and removing/reducing barriers to learning.
- To support all pupils with SEND to meet or exceed the high expectations we set for them against national data and based on their age and starting points.
- To ensure that assessment and monitoring systems are effective and provide sufficient information about attainment and achievement for careful planning of progression.
- To ensure that all those involved with children with SEN work as a team to support each child's learning.
- To take into account the views of pupils and their parents/carers and to encourage their participation and partnership in decision-making about provision to meet special educational needs.
- To ensure that every child experiences success in their learning and achieves the best possible educational and other outcomes.
- To support children and young people with SEND and medical conditions to take part in the activities of the school alongside those who do not have SEND.
- To value and encourage the contribution of all children to the life of our school.
- To work with the Governing Body to enable them to fulfil their statutory monitoring role with regard to the specific supervision of the school's arrangements for SEN and disability.
- To work closely with partners in education, health and social care, where appropriate, to support the needs of individual pupils, ensuring that there is a multi-professional approach to meeting the needs of vulnerable learners.
- To ensure that all staff have access to continuing professional development and advice to support quality teaching and learning for all pupils.

- To help children and young people prepare for a successful transition into the next phase of their education and to adulthood.

- At all times, teachers will be sensitive to the individual needs, beliefs and anxieties of the children they teach. At St. Gabriel's, staff conduct themselves in a professional manner. Controversial topics will be handled sensitively with our five 'Be Values' underpinning lessons: Be Kind, Be Safe, Be Respectful, Be Polite, Be Your Best. This will give children a clear and recognisable framework in which to discuss difficult topics. Teachers will demonstrate impartiality in respect of their own personal beliefs and attitudes.
- Staff will use a variety of teaching methods to ensure quality first teaching.
- Teachers will report progress to parents in a variety of ways. Teachers will formally report progress in annual reports. They will also discuss progress during parent evenings and when the teacher feels it is necessary to discuss issues that may arise throughout the year.

5. Impact

To assess the impact of our maths curriculum on the progress made by pupils, we employ a regular cycle of the following formative and summative assessment tools:

Formative Assessments		
What?	*Why?*	*When?*
Targeted Questioning Teachers are encouraged to use develop children's reasoning skills and use of mathematical vocabulary through use of tailored, targeted questions. High-quality questions are adapted from Power Maths and Primary Stars planning.	Differentiated questions allow teachers to guide, support and stimulate learning whilst identifying/addressing misconceptions.	Throughout each lesson.
Reflects (Years 1-6) Children complete an independent assessment question.	Reflects give teachers the opportunity to see whether children have secured their knowledge in the lesson. It helps them to identify misconceptions which can then be addressed before the next lesson.	At the end of each maths lesson.
TT Rockstars (KS2) Children in KS2 are encouraged to play TT Rockstars regularly at home. There are 3 TTRS lunchtime clubs for Y4/5/6	Regular practise on TT Rockstars helps children to achieve automaticity in their recall of times tables facts. The data collected by the website is useful in identifying those children	This is checked regularly by class teachers and weekly by the maths lead. TTRS year group top tens are celebrated every Friday in the celebration assembly.

	who may need further support.	
Maths Moments Children participate in chants, songs and games. Teachers choose content based on current learning, learning not mastered and revisiting previous content.	Maths Moments consolidate learning in a fun and engaging way outside of the core maths lesson. Regular opportunities to practise applying their mathematical knowledge helps build automaticity. Participation in maths meetings identifies children who are not yet confident.	3-4 times per week or more where possible. These are spontaneous events where teachers use transition times to great effect.
Summative Assessments		
What?	*Why?*	*When?*
Reception Baseline Assessment	The Reception Baseline Assessment Framework states, '*The purpose of the reception baseline assessment is to provide an on-entry assessment of pupil attainment to be used as a starting point from which a cohort-level progress measure to the end of key stage 2 (KS2) can be created.* This judgement will provide a snapshot of where a child is on their maths journey, when they begin our school.	Within the first 6 weeks of the Autumn term.
Standard Assessment Tests (SATs)	**SATs** (Standard Assessment Tests) measure overall maths attainment over each key stage.	In Years 2 and 6.
End of Term Assessments (Power Maths) (Years 3-6)	To assist teachers in making a final judgement about the progress made over the course of the year. To identify any gaps for specific children to be passed up to the subsequent teacher.	December Easter July

End of Unit Checks (Years 3-6) We use the Purple Mash Assessments or SATs past papers in Year 6	To assess whether children have mastered the concepts taught in each unit.	At the end of each unit.
End of Topic Assessments (Years 1-2) We use the Primary Stars end-of-topic assessments.	To assess whether children have mastered the concepts taught in each unit.	At the end of each topic.
Sandwell Maths Tests (for children working below and well-below)	To show smaller steps of progress for less able children	November June

The impact of our maths curriculum is also evaluated through a monitoring cycle, *see below*.

6. Monitoring Arrangements

The delivery of the maths curriculum is monitored by Ms M Dickenson (Maths Lead), alongside Mr E. Byrne (Headteacher) and Mrs C. Stevenson (Deputy Headteacher).

The purpose of monitoring is to enhance and develop the teaching and learning of maths at our school. Monitoring takes place over a cycle during each term throughout the year. Monitoring consists of pupil voice, book scrutinies, lesson observations and learning walks. All monitoring is to be purposeful, have a clear pre-determined focus and must provide a clear outcome for all involved.

The maths monitoring cycle is detailed in a calendar format as part of each year's maths action plan. This is available for all staff to view on our school shared drive and dates are shared with staff in advance.

7. Roles and responsibilities

7.1 The governing body

The governing body will approve the maths policy and hold the headteacher to account for its implementation.

7.2 The headteacher

The headteacher is responsible for ensuring that maths is taught consistently across the school.

7.3 Staff

The Maths Subject Lead is Ms M Dickenson (Maths Lead) who will ensure, through regular monitoring of teaching and learning, that staff:

- Deliver the maths curriculum as set out in the national curriculum programmes of study, following the Power Maths scheme.
- Follow the implementation guidance set out in this policy to ensure consistency across the school.

- Monitor and assess the progress of the children they are teaching.
- Stimulate children's enthusiasm for maths learning through providing an engaging maths environment whilst being a 'maths enthusiast' themselves.
- Maintain a 'maths working wall' display which follows school guidance and reflects the learning that is going on in the subject.
- Keep up to date with latest developments in the teaching and assessment of maths.

The maths lead will ensure that maths remains high profile throughout the school.

7.4 Pupils

Pupils are expected to engage fully in maths and, when discussing issues related to maths, treat others with respect and sensitivity.

Pupils are expected to engage fully with home learning including regular maths homework and additional times tables practise (in KS2), to the best of their ability.

This policy will be reviewed by Ms M Dickenson (Maths Lead), Mrs. C. Stevenson (Deputy Headteacher) and Mr E. Byrne (Headteacher) annually. At every review, the policy will be approved by the governing body and the headteacher.

Signed:

…
Headteacher

…
Chairman of Governors

…
Deputy Headteacher

Ms M Dickenson
Maths Lead

Date: January 2024

Review Date: January 2025