



St Nicholas^{CE}
First School

Maths

Subject Policy and Expectations

(For Staff, Local Academy Board and Families)

Mrs S Robb

Policy Reviewed by Subject Leader: ✓

Policy Reviewed and Approved by LAB: ✓

Next Policy Review Date: ✓

Care

Respect

Trust

Thankfulness

Challenge

Our School, Our St Nicholas Curriculum

Our school's curriculum is its backbone; it communicates, develops, and enhances community-wide culture, morals, values and aims, that contributes to children leaving our school as well-rounded members of society. It permeates every aspect of school life and demonstrates to the wider community our school's commitment to shaping future generations and the world's future leaders, whilst providing a clear structure and purpose for learning about and understanding the diverse world around them.

Our School Vision

Walking in the footsteps of Jesus with Care, Respect, Trust, Thankfulness and Challenge

Our Values

Care: Clothe yourself with compassion, kindness, humility, gentleness and patience. *Colossians 3:12*

Respect: Do to others as you would have them do to you. *Matthew 7:12*

Trust: My God is my strength in whom I trust. *Psalms 18:2*

Thankfulness: Always be thankful. *1 Thessalonians 5:16*

Challenge: I can do all things through Him who strengthens me. *Phillipians 4:13*

Our Curriculum Vision

Rooted in our Church ethos, we aim to deliver on our children's future through a curriculum that offers vibrant, diverse and creative experiences and opportunities. In turn, children leave St Nicholas prepared and equipped with the lifelong knowledge, skills and concepts to play an active role as a safe, happy and productive member of our global community.

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Our Curriculum Aims and Culture

A Head, Heart, Hands, Health approach to learning and personal development

Head



Preparing our children with knowledge and skills for lifelong learning, that contributes to their understanding of the wider diverse world, so they become well-rounded members of society.

Hands



Developing hands-on skills and knowledge, to enable our children to be resilient and creative learners, who take risks and explore ideas in different ways.

Heart



Promoting our children's love for learning, exploring how it links to everyday life, whilst having the pride and desire to undertake challenges, in order to be the best they can be, through following Jesus as a role model.

Health



Equipping our children to recognise how they can help to keep themselves spiritually, mentally and physically happy, healthy and safe by making the right, positive choices.

Curriculum Principles

Our curriculum is **Balanced...** it allows our pupils to acquire and develop a carefully planned, well-rounded and informed set of knowledge and skills, to prepare them for the next phase of their education. This means complete equity for every child, in every year group and in every subject across the curriculum.

Our curriculum is **Progressive...** it activates and builds on what our children already know and aims to sequentially develop ideas and concepts clearly over time, in order that children develop a robust overview of the 'bigger picture', and ultimately apply and explore their learning from different open-ended dimensions.

Our curriculum is **Quality...** significant thought and consideration is invested into the planning, delivery, resourcing and facilitation of the provision by our staff to ensure that it drives what we strive to achieve for our children. High quality provision that is rooted in evidence-informed practice is the linchpin to driving our standards forward.

Our curriculum is **Accessible...** whereby all pupils regardless of background or disposition are given the tools to achieve their very best, whether this be through scaffolding and support strategies, or through stretch and challenge. All children are given the opportunity to experience success and more through an informed and responsive approach to teaching and learning.

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Our Aims and Aspirations for Mathematics

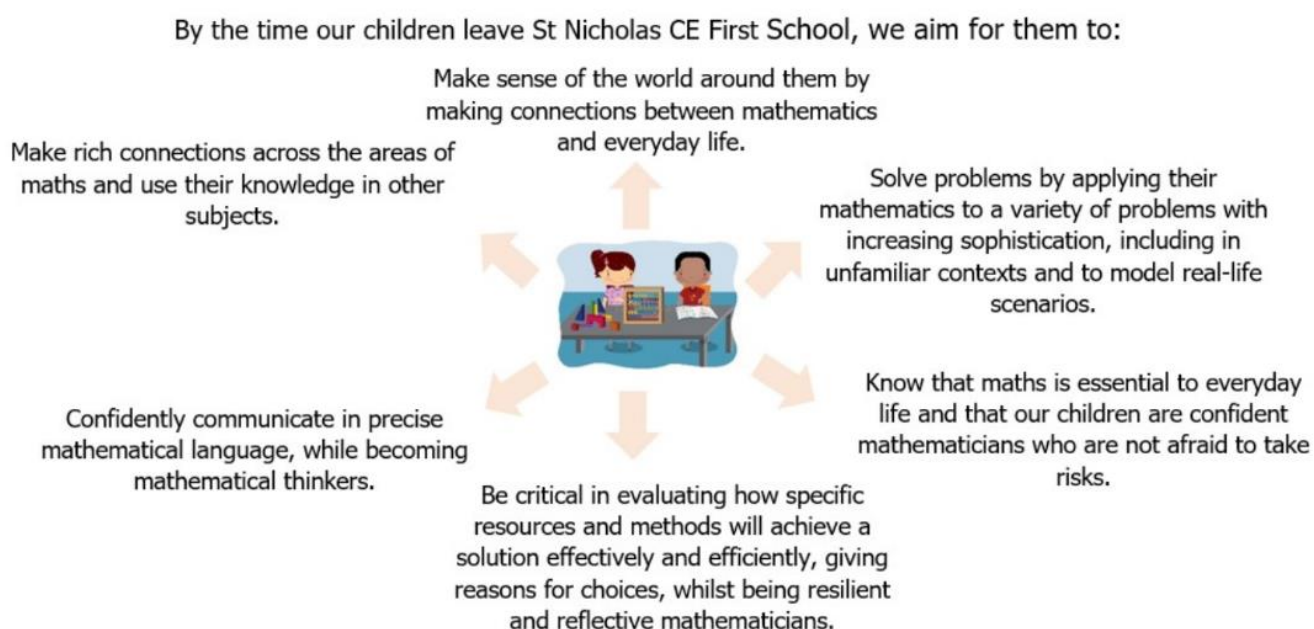
Why is Mathematics important for our learners at St Nicholas?

Mathematics introduces children at St. Nicholas First School to concepts, skills and thinking strategies that are essential in everyday life and support learning across the curriculum. It helps our children make sense of the numbers, patterns and shapes they see in the world around them, offers ways of handling data in an increasingly digital world and makes a crucial contribution to their development as successful learners.

Our children delight in using Mathematics to solve a problem, especially when it leads them to an unexpected discovery or new connections. As their confidence grows, they look for patterns, use logical reasoning, suggest solutions and try out different approaches to problems. Mathematics offers children a powerful way of communicating. They learn to explore and explain their ideas using symbols, diagrams and spoken and written language. They start to discover how Mathematics has developed over time and contributes to our economy, society and culture. Studying Mathematics stimulates curiosity, fosters creativity and equips children with the skills they need in life beyond school.

What are our aims and aspirations for the St Nicholas Engager?

By the time our children leave St Nicholas CE First School, we aim for them to:



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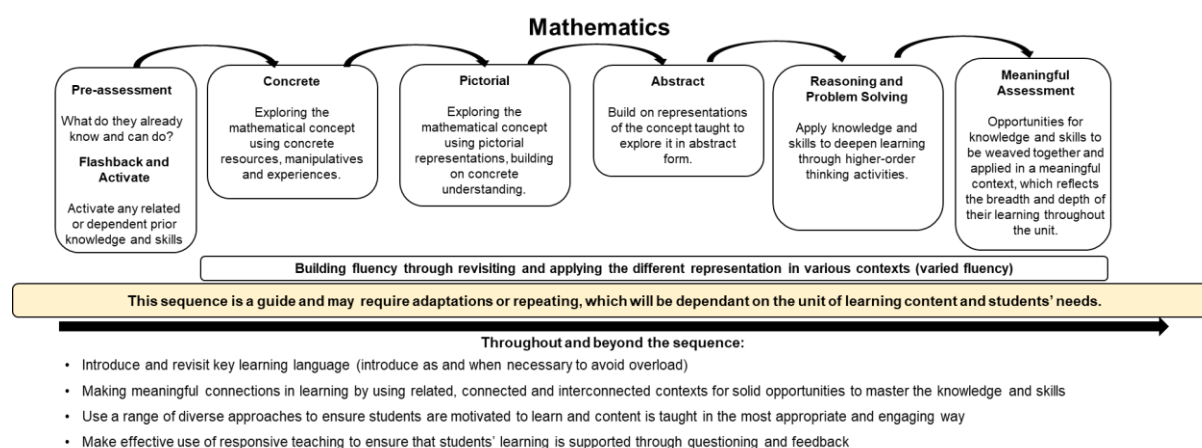
Challenge

Curriculum Design in Mathematics

Structure

As a school, we follow the National Curriculum using the White Rose Scheme, which provides a clear structure and foundation for sequencing the teaching and learning of new Mathematical concepts. This is built upon through supporting our children to become fluent and deeper thinking Mathematicians, from learning and reciting key number facts through to applying these to different representations known as varied fluency. Children in Year 1 and 2 also have daily lessons following the Number Sense scheme which is 10-15 minutes daily focusing on fluency and recall of number facts. Number Sense is also used in Year 3 & 4 as an intervention and catch up strategy.

Mathematics is taught daily in school and in Years 1-4 totalling of 5 hours per week. In EYFS a mathematical focus is taught each day with adult led tasks or choose provision available each week. A range of skills taught in Maths are also used across the curriculum, in subjects such as Science and Geography. In Maths lessons at St Nicholas, children will revisit and activate their prior learning which feeds into the new concept that is being introduced; this is developed effectively through the use of concrete apparatus and manipulatives. Building on this, children practise and embed this new learning through a range of independent fluency, problem solving and reasoning activities. Children are actively encouraged to discuss their learning utilising key subject vocabulary. As children develop their conceptual understanding, they move forward with solving problems and calculations in a more abstract representation.



Reception

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	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Getting to know you		Match, sort and compare		Talk about measure and patterns		It's me 1, 2, 3		Circles and triangles	1, 2, 3, 4, 5		Shapes with 4 sides
Spring	Alive in 5		Mass and capacity	Growing 6, 7, 8		Length, height and time		Building 9 and 10		Explore 3-D shapes		
Summer	To 20 and beyond		How many now?	Manipulate, compose and decompose		Sharing and grouping		Visualise, build and map		Make connections	Consolidation	

Year 1												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value (within 10)				Number Addition and subtraction (within 10)				Geometry Shape			
Spring	Number Place value (within 20)		Number Addition and subtraction (within 20)		Number Place value (within 50)		Measurement Length and height		Measurement Mass and volume			
Summer	Number Multiplication and division		Number Fractions		Geometry Position and direction		Number Place value (within 100)		Measurement Money	Measurement Time	Consolidation	

Year 2												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value				Number Addition and subtraction				Geometry Shape			
Spring	Measurement Money		Number Multiplication and division				Measurement Length and height		Measurement Mass, capacity and temperature			
Summer	Number Fractions		Measurement Time		Statistics		Geometry Position and direction		Consolidation			

Year 3												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value			Number Addition and subtraction				Number Multiplication and division A				
Spring	Number Multiplication and division B			Measurement Length and perimeter		Number Fractions A			Measurement Mass and capacity			
Summer	Number Fractions B		Measurement Money	Measurement Time	Geometry Shape			Statistics				
	Consolidation											

Year 4												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number Place value				Number Addition and subtraction			Measurement Area	Number Multiplication and division A			
Spring	Number Multiplication and division B			Measurement Length and perimeter		Number Fractions			Number Decimals A			
Summer	Number Decimals B		Measurement Money	Measurement Time	Consolidation			Geometry Shape		Statistics	Geometry Position and direction	

Curriculum Provision in Mathematics

Effective Teaching and Learning

At St Nicholas Effective teaching of Mathematics establishes clear goals for the Mathematics that our children are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions. We engage our children in solving and discussing tasks that

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promote mathematical reasoning and problem solving. At St. Nicholas we help children to make connections between Mathematical representations to deepen their understanding of concepts and procedures alongside being a tool for problem solving. Effective teaching of Mathematics uses purposeful questions to stimulate curiosity, deepen reasoning and understanding of concepts, alongside making sense of important mathematical ideas and relationships.

Use of Concrete-Pictorial-Abstract (CPA) Approach/Use manipulatives and representations: We engage our children in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving.

Use and connect mathematical representations: Teachers engage children in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving.

Teach strategies for solving problems: We encourage, support and challenge our children to tackle problems are of increasing levels of complexity or abstraction.

Build procedural fluency from conceptual understanding: We aim to build children's fluency with procedures on a foundation of conceptual understanding so that students, over time, become skilful in using procedures flexibly as they solve contextual and mathematical problems.

Help learners to make connections: The bigger picture of mathematical concepts are made up of a series of connections. Therefore, our approach to teaching and learning in mathematics, means that we aim to build on prior mathematical concepts and how they

Pose purposeful questions: Questions are powerful tools to assess and advance children's thinking and learning; they support children to explore key mathematical concepts and ideas

Effective teaching of mathematics uses purposeful questions to assess and advance students' reasoning and sense making about important mathematical ideas and relationships.

Responsive Teaching and Learning

As a school that is responsive to the needs of our children, we set high expectations for all to ensure they have the best possible opportunity to achieve their very best. To support us in achieving our ambition, we recognise that we need to 'Scaffold and Support', and 'Stretch and Challenge'.

Scaffold and Support is our approach to planning and implementing provision that gives every pupil the very best chance to secure the learning intentions; this can be through a range of support strategies such as additional modelling, questioning and resources to scaffold pupils' thinking and learning, to build further children's self-efficacy.

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Stretch and Challenge involves strategies that aim to deepen learning and thinking, where critical evaluation and thinking play a key role in pupils seeing their learning from different dimensions.

Scaffold and Support in Mathematics	Stretch and Challenge in Mathematics
• Visual prompts • Concrete manipulatives • Explicitly teaching new language • Pre-teaching • Paired work	• Show learning in different ways • Prove its (challenging children to provide detailed explanations and examples that justify their thoughts). • Problem solving • Looking for patterns and explaining reasoning. • Challenges that encourage children to connect different mathematical concepts from those that have been taught and what is taught now. • Challenging children to look ahead and hypothesise about how their Maths journey will unfold.

Whilst the class teacher takes a central role in facilitating learning, there are many opportunities for children to promote, acquire and apply our St Nicholas Skills for Lifelong Learning:

A St Nicholas learner will always apply their lifelong learning skills:



Eager

I see, I think, I wonder...

I plan and think through my learning.

I think of new and creative ideas.

I dive deeper into my learning.

I apply my learning to real life.



Resilient

I set goals to challenge myself.

I break my learning and task into chunks.

I find tools to help me with my learning.

I keep going and never give up.

I use mistakes to help me learn.



Reflective

I use what I already know to help me.

I think about how I am getting on.

I listen and respond to feedback.

I am proud of what I can do.

I see where to go next.



Collaborative

I listen to others.

I explain things to others.

I talk about my learning.

I am honest and trustworthy.

I work as part of a team.

Giving Feedback to Learners

Feedback for Learners

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Feedback to learners in Mathematics, as with other areas of the curriculum, aims to be meaningful, purposeful and constructive. Learners are given feedback in a variety of ways. This can be both verbally and written. We also encourage pupils to evaluate their own learning in a lesson and when appropriate to peer assess. It is important that children are only able to recognise their own and others' successes as their development points. Therefore, feedback in mathematics is used to inform subsequent teaching and learning, which supports teachers to intervene in a timely way, in order to provide scaffold and support, or to stretch and challenge children.

The Role of Assessment

Assessment is used to inform planning and to support each child's development; this is achieved through the use of Cold Tasks. Formative and summative assessment takes place throughout units of learning, which feed into the judgements that teachers make about each child's achievement and progress. When summative assessment takes place, teachers take into account a range of evidence, such as children's work, performance on assessments and the overall bigger picture of what formative assessment has highlighted. Assessment is then formally captured on the platform 'Insight' to monitor each child's progress within Maths and to ensure any gaps in learning are identified and closed.

Curriculum Evaluation in Mathematics

At St Nicholas, we use a range of quantitative and qualitative evidence-gathering techniques that are triangulated to draw together valid, accurate and robust evidence-based findings to make rigorous evaluations about the impact of our teaching and learning. This supports us to celebrate achievements whilst also recognising key priorities for future development. It is important that we evaluate our curriculum against our aims and aspirations. Please note that not all evidence-gathering techniques outlined below take place simultaneously; we select techniques that we know will give us the most purposeful information and impact at a point in time.

These evidence-based findings are drawn together and directly feed into subject leader action planning, which is then shared with the Local Academy Board (LAB) to hold the school to account for teaching, learning and children's progress and achievement in Maths.

How do we evaluate?	What are we evaluating? Why are we evaluating in this way?	Who is involved?
We look at children's work.	Looking at children's work helps us to see the opportunities they have had to apply their learning meaningfully and in ways that reflect a deeper approach to learning.	Subject Leader Children Colleagues
We talk to the children about their learning and let them share their views in different ways.	Talking to children and recognising their views helps us to see identify the extent to which children are engaged and interested in their learning, and what we can do to make their experiences even more meaningful.	Subject Leader Children
We talk to and gather views from parents about their child's	Gathering views from parents helps us to shape our understanding of children's experiences and opportunities across the curriculum from a different yet important perspective.	Subject Leader Colleagues Children

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learning and experiences.		Parents
We have professional and reflective discussions with our colleagues.	Professional and reflective discussions with colleagues helps to share and exchange ideas about effective practice and priorities for moving forward.	Subject Leader Colleagues
We visit lessons to see strategies, opportunities and experiences used for learning.	Visits to lessons help colleagues to recognise the extent to which strategies, opportunities and experiences in lessons have an impact on maximising children's progress and meeting their needs.	Subject Leader Children Colleagues
We look at subject planning.	Reviewing subject planning is important to explore how appropriate the design of the curriculum is in maximising learning progress and to ensure that children build the bigger picture of knowledge and skills over time.	Subject Leader Colleagues
We look at and analyse pupil progress and achievement.	Analysing children's progress and achievement in more detail helps to develop lines of enquiry and identify key groups or subject areas that may benefit from further development.	Subject Leader Colleagues

Identifying Staff Continual Professional Development Needs

Continual Professional Development (CPD) is integral to the development of teaching and support staff to ensure that they are well-equipped to plan, deliver and evaluate a high-quality curriculum. The direction of CPD is steered through triangulated findings from the evidence-gathering techniques and staff audits.

CPD will be facilitated in the following ways:

- **Colleague Networking:** Working with other colleagues to build capacity and staff self-efficacy through a bespoke package of CPD (such as professional discussion and observation). This may be through working with staff at St Nicholas, across the MAT or beyond.
- **Staff Workshops:** Personalised whole-school staff developmental sessions to support pedagogical knowledge, strategies to motivate, challenge and support, and subject knowledge development. This may include inviting 'experts' to support staff development or enrolling members of staff in face-to-face or virtual courses.

Expectations and Responsibilities

The Local Academy Board (LAB), Senior Leadership Team, Subject Leader and Teaching Staff have key responsibilities to uphold the high expectations, principles, design and provision of our Religious Education curriculum as follows:

Local Academy Board	Senior Leadership Team/ Subject Leader	Teaching Staff
• Rigorously review the policy and expectations for Maths to ensure it meets the school's curriculum principles, drivers and rationale. • Regularly meet with the subject leader to explore findings from evidence-gathering and discuss how	• Implement evidence-gathering techniques to gather a well-rounded evaluation of the impact of the design and provision in Maths including working in collaboration with members of the LAB.	• Plan lessons that motivate, challenge and inspire pupils using a range of teaching and learning strategies. • Provide pupils with clear, concise and constructive feedback about

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this will feed into subject action planning. Plan for and communicate potential financial, time and resourcing commitments with the LAB, that will be required as part of the subject action plan.	- Widen pupils' celebration of diversity and intercultural understanding through facilitating a range of engaging, inspirational and aspirational enrichment opportunities. - Identify and plan to address key priorities for development that will move the curriculum forward, including potential financial, time and resourcing commitments required. - Identify staff CPD needs and design bespoke developmental sessions and coaching that will address key priorities, including subject knowledge. - Support staff across the school to deliver a balanced, progressive, high-quality and consistent Mathematics curriculum, which supports and challenges children.	their learning progress and achievement. - Use a range of evidence to make a robust and accurate assessment of pupil attainment and progress. - Communicate progress and achievement with parents/carers. - Ensure that lessons are well-resourced to support pupils' learning. - Support the facilitation of engaging, inspirational and aspirational enrichment opportunities that widen pupils' celebration of diversity and intercultural understanding. - Adapt teaching and learning strategies, resources and activities to support children who require additional support or challenge.
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If you require any further information regarding the content of this policy, would like to know more about or feel you could contribute to our Mathematics curriculum, please contact the subject leader using the following contact details:

Name of Subject Leader: Mrs S Robb

Telephone (School Office): 01902 842998

Subject Leader E-Mail Address: suzanne.robb@st-nicholas.staffs.sch.uk (FAO: Mathematics Subject Leader)

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