

Mathematics at Parish C.E Primary School Liverpool Dick





R = Encaurage Resilience and Perseverance



A = Develop Articulate Learners



I = Influence Aspirations



N = Nurbure Curiositu



B = Instil British and Christian Values



O = Provide Opportunities to build upon knowledge and skills



W = Wellbeing and Health



INTENT STATEMENT

At Parish Church of England Primary school, we provide a high-quality mathematics education utilising a mastery approach so that all children: become fluent in the fundamentals of mathematics; are able to reason mathematically with increasing articulacy; and can solve problems by applying their understanding to a variety of problems. Our inclusive mathematics curriculum provides challenge for all pupils with teachers choosing to progress to new learning only when the majority of learners have a secure understanding. Challenge occurs through depth of understanding with an offer of rich and sophisticated problems rather than new content. Our mathematics curriculum aims to develop the five core mathematical competencies in all of our learners – therefore providing a foundation for our children to understand the world around them knowing both the beauty and power of mathematics in its own right and how it can be applied to other subjects across the curriculum including Science and Computing.



INTENT - CURRICULUM SEQUENCED AND KEY CONTENT PRIORITISED

At Parish Church of England Primary School, our mathematics planning from Reception through to Year 6 is informed (not dictated) by use of Maths-No Problem! - a high-quality mastery scheme of work, setting high aspirations for all children, ensuring that all pupils can "keep up with new content", as opposed to having to "catch up." In Nursery the 'Mastering the Curriculum' scheme of work provides the building blocks of knowledge for future learning.

Five Mathematics lessons are taught per week to fully maximise curriculum coverage, including 'Fluency Friday' (incorporating discrete teaching of multiplication tables) to ensure pupil automaticity. Through implementation of a spiral curriculum, each lesson sequentially builds upon the prior learning. Topics consolidate understanding, while also increasing in complexity allowing new learning to be related to previous learning aiding retrieval.

Maths - No Problem! provides a series of carefully sequenced lessons enabling new knowledge and skills to be built upon what has been previously taught and pupils can work towards clearly defined end points. However, our highly skilled teachers are then able to reflect and adapt the teaching sequence appropriately (dependent on pupil's knowledge) to provide further opportunities for practise, consolidation and an increasing depth of conceptual understanding. The sequence and speed of lesson delivery is dictated by pupil understanding with whitespace lessons and prioritisation of 'key lessons' utilised where appropriate to embed the most fundamental concepts. This ensures that all statutory National Curriculum coverage is met, with additional coverage of deeper non-statutory content if time allows. Our mathematics long-term plan clearly stipulates the order of topics taught in each age group in each term, so that new knowledge and skills can build on what has been taught before and towards our clearly defined end points - thus ensuring our long-term is taught in its entirety /ear-on-year. This plan loosely follows Maths - No Problem's recommended long-term plan but has been amended to meet the needs of our school community by addressing identified gaps in pupils' knowledge and skills from question level analysis (including Geometry).



At Parish C.E. Primary School we want to develop curious mathematicians who can spot patterns, make connections, whilst also be able to express their justifications. Therefore, we aim to equip all pupils with the skills and confidence to solve a range of problems through fluency with numbers and mathematical reasoning. The three aims of the National Curriculum (fluency, reasoning and problem solving) are addressed during every mathematics lesson.



EYFS AS THE 'BEDROCK'

In the Early Years Foundation Stage, our focus is on building strong foundations for future study. Using high-quality curriculum resources that align perfectly with the EYFS statutory framework and working towards the early learning goals, our curriculum aims to instil positive attitudes to maths at an early age with maths resources that help children learn in un, hands-on, practical ways. Songs, stories and rhymes are an inherent strategy of teaching key concepts while short, yet purposeful sessions match the shorter attention spans of children in this age group.

In Nursery, Master the Curriculum provides a framework, including a nursery rhyme each week and hands on practical maths lessons, that provide the building blocks for further study in Reception. Our curriculum is designed so that adult led learning complements continuous provision, laying the foundations for mathematical thinking and talk.

In Reception, Maths No Problem! Foundations meets all of the requirements of the revised EYFS Framework 2021 and helps children in the Early Years begin to develop a deep and long-lasting understanding of the world of mathematics. Building on the work from Mastering the curriculum, this research-based approach encourages learning through play and helps children in the Early Years begin to develop a deep understanding of the world of mathematics. The planned mathematical activities are purposeful and carefully designed. Staff then also then consider how children access maths resources in the wider provision ensuring how children are unable to simply 'opt out.'. Links to Maths can be found throughout all areas of our provision



CULTURAL CAPITAL

With our firm belief that knowledge is transferable, our pupils are given every opportunity to participate in a wide range of learning experiences beyond their classroom.

Cultural capital visits, visitors and events allow us to illustrate how Mathematics is threaded through all aspects of life throughout differing occupations. Within our lessons, we also believe we offer a suitable mix of challenge and support for our children to be confident in taking risks with their mathematical thinking and how mistakes are part of the learning process that they can take into future study and beyond.

We work closely with Money Mentors (working with Y4/ Y5/Y6) to ensure that children are financially aware.



READING AS THE BEATING HEART

Reading is embedded into our teaching of Mathematics through our day to day practice.

Through each lesson children explore an 'In Focus' task which requires reading to understand the problem.

We also explore a textbook approach to teaching, which allows the children explore methods to solve a problem.

Reading is also central to our EYFS curriculum offer with picture books used throughout our teaching in addition to a progression in rhymes.



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CURRICULUM PROGRESSION

The curriculum is sequenced to ensure that learning is built upon over time. Learning is revisited so that pupils are able to retain their knowledge through a spiral curriculum. Non-statutory guidance from the Department for Education and NCETM titled 'ready to progress criteria' are also utilised within planning to summarise the most important knowledge/concepts within each year group and make important connections between these mathematical topics. Again, this informs planning to ensure that pupils embed key concepts within their long-term memory and apply them fluently. Milestones have also been created from our SEND toolkit.

We also focus on the differing types of mathematical knowledge including declarative knowledge (number facts), procedural knowledge (how to) and conditional knowledge (problem solving).

Across the school we also focus on the fundamental teaching and learning of multiplication tables, which are progressively planned across our mathematics long-term plan to be learnt with increasing fluency. By the end of Year 4, pupils should be able to recall all of their times tables accurately, supporting development in children's working memory.



PEDAGOGICAL APPROACH TO TEACHING AND LEARNING (LESSON STRUCTURE)

Each of our maths lessons follows the same structure including—

Anchor Task Exploration

Anchor Task Structured Discussion

Anchor Task Journaling

Let's Learn

Reflection Time

Workbook

Practice (Guided & Independent)



STAFF CPD (LINKED TO GOOD PRACTICE)

All teaching staff have attended accredited Maths - No Problem! Training highlighting our commitment to a mastery approach across the school.

As part of LDST, extensive trust wide networking takes place through School Improvement Liverpool and curriculum networking teams, ensuring the latest curriculum updates and disseminated and implemented. This includes our Maths Hub development group.

Internal to school, coaching cycles also regularly take place to show how to model an aspect of maths or establishing best practice across year groups.

Maths Hub work as part of LDST and Teaching Mastery Develop-

Termly Maths CPD session (with Maths Leader facilitating NPQ Leading Primary Maths).



APPROACH TO ASSESSMENT

Maths is assessed continually throughout lessons. Pupils understanding is evaluated during each lesson to establish if any additional support or challenge is required.

Prior knowledge is assessed at the start of each new area of mathematics and used to inform planning and relevant white space teaching.

Maths is also assessed termly through NFER assessments which are analysed through the ASK EDDI program which show whole class priorities moving forward. In depth QLA regularly takes place and provides a framework for learning moving forward.



MEETING THE NEEDS OF ALL LEARNERS

Any children who need additional support within the less are supported using the 3Cs—coherence, context or concrete. Early interventions help pupils to catch-up and perform better across the curriculum. Adaptive teaching takes place throughout all lessons with Quality First Teaching at the heart (supplemented by a small number of evidence informed interventions).

For those children with SEND, teachers use appropriate assessment to set targets which are deliberately ambitious for pupils identified as having a SEND and ensure needs are met as identified through the pupil passport. These are identified through our SEND toolkit ensuring lessons our planned to address potential areas of difficulty and to attempt to remove barriers to pupil achievement. A small number of pupils receive additional support in the form of a bespoke mathematical curriculum tailored to meet their needs.

Finally, gifted learners and learning for those children excelling is extended in the form of challenge through the 3 Ps—pattern, prove it or problem.



OUR IMPACT

Impact is reviewed regularly through our approach to assessment We assess through 3 different methods including:

- 1 Self-assessment
- 2 Formative Assessment
- 3 Summative Assessment

Speak to the maths subject leader for more information about the impact of our maths curriculum.



GOVERNOR COMMUNICATION

Speak to our curriculum link governor.



SUBJECT PRIORITIES AND

ASSEMENT DATA

Talk to the Subject Leader about their priorities for this year and up-to-date assessment data.