



Holy Trinity CofE Primary School
Maths Curriculum Overview

Rationale

At Holy Trinity we are aspirational for all children and aim for each child to live life to the full. We believe that mathematics should be enjoyable, providing a range and depth of learning to equip children with the skills and understanding to be competent mathematicians now, and in their future lives. As such, we aim for pupils to become fluent in the fundamentals of mathematics, developing conceptual understanding and the ability to recall and apply knowledge rapidly in order to reason and problem solve by applying mathematics to a variety of increasingly complex problems.

Our curriculum allows children to better understand the world around them, by making connections between mathematics and everyday life. We aim to ensure that mathematics is a high-profile subject, which children view positively and with a 'can do' attitude. With this in mind, we deliver a high-quality, progressive mathematics curriculum that inspires our children to succeed and provide opportunity for them to excel in the subject, whilst ensuring that their experience of mathematics at Holy Trinity is positive, motivating them to succeed in mathematics beyond their primary school education.

Structure

Our maths curriculum is taught across years 1 to 6 through a daily maths lesson. We use the CanDoMaths scheme of work to guide our curriculum, delivering the aims of the national curriculum through small step learning. We use other quality-assured resources, such as White Rose, NRICH and iSee Reasoning, to supplement our curriculum.

Curriculum Organisation

The daily teaching of maths consists of two discrete parts:

50 minutes	20 minutes
Daily maths Lesson Small step learning following consistent lesson-design principles	Maths practise fluency Deliberate practise of KPIS Gap-fill

Lesson design

Every lesson starts with a retrieval activity to activate appropriate prior knowledge in readiness for the next small step. Activities, such as Colin's Quiz, provide a formative assessment opportunity which teachers use to guide teaching and learning.

Tasks are designed following the same consistent approach:

Try it: Maximum of seven fluency questions. Teacher's carefully craft questions to ensure the principles of variation is applied to this level of work. We do this by providing exposure to visuals, different questions and questions that conceptually build a deeper understanding.

Twist it: A reasoning style question. This question is designed to address any misconceptions children may have, asking questions such as 'What's it not?'. Often, the twist it will require a written response in which children should be encouraged to use and apply appropriate mathematical vocabulary.

Quiz it: Problem-solving questions which encourage deeper thinking of a small step or mathematical concept.



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Where children have worked through the above tasks quickly, showing a good level of conceptual understanding, teachers may provide additional open-ended tasks which children can attempt, using sources such as NRICH.

Maths fluency

Every day, teachers allocate around 20 minutes of the maths lesson towards developing fluency of key mathematical concepts, applying the principles of spaced retrieval and interleaving. These sessions are centred around Key Performance Indicators (KPIs) the foundations of confident and successful mathematicians. Across the schools we adopt the weekly structure to maths fluency sessions:

Day 1	Day 2	Day 3	Day 4	Day 5
Place value / Number focus	Addition / Subtraction focus	Multiplication / Division focus	99 club (See below)	30:20 (See below)

These sessions are characterised by deliberate practise of prior or current knowledge, with a view that the vast majority of children will access the content with minimal instruction. These sessions also provide a valuable opportunity for staff members to work with targeted groups of children, providing additional instruction, intervention and/or support. Days 1 to 3 can involve a combination of whiteboard work and completion of short activity sheets, where appropriate. With the exception of days 4 and 5 which are completed on paper, there is no set expectation for formally recording pupil outcomes.

99 Club

Being able to fluently recall all times tables up to 12x12 is a significant advantage for pupils when undertaking new learning in maths and ensures pupils are able to grasp related concepts more quickly and confidently. The 99 Club aims to raise standards in maths through encouraging pupils to improve their mental calculations when attempting quick-fire multiplication and division problems. The concept is that, with repeated practise, the scheme should result in pupils' increased speed and confidence when tackling mental maths problems, without relying on written workings and methods.

All pupils begin at the 11 Club and work their way up, having one opportunity per week during the start of one of their maths lessons to answer all calculations at their current level - unaided and within the allotted time of five minutes. If all of the calculations are answered correctly, the child moves up to the next level.

The initial 11 Club involves eleven problems which involve doubling numbers up to ten i.e. 5+5, 8+8. The 22 Club then adds eleven further questions involving repeated addition for numbers from one to ten, while the 33 Club begins to introduce times tables. Division facts are added by the time a pupil reaches the 77 Club, and in the 88 Club and 99 Club, pupils tackle a range of mixed multiplication and division problems.

The full breakdown of The 99 Club levels is as follows:

- 11 Club** - 11 questions involving doubling numbers from one to ten
- 22 Club** - 22 questions involving repeated addition of numbers from one to ten
- 33 Club** - 33 questions introducing the 2x, 3x, 5x and 10x tables
- 44 Club** - 44 questions adding the 1x, 4x and 6x tables
- 55 Club** - 55 questions adding the 7x and 8x tables
- 66 Club** - 66 questions adding the 9x, 11x and 12x tables
- 77 Club** - 77 questions consisting of inverse division facts
- 88 Club** - 88 questions of mixed multiplication and division facts
- 99 Club** - 99 questions of mixed multiplication and division facts



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The challenge is to complete all 99 questions of the 99 Club unaided, with no errors and within five minutes. Pupils respond positively to the challenge of the 99 Club which, when complemented through engagement with Times Tables Rock Stars (TTRS), can result in children's rapid movement through the levels.

Further to the 99 Club level, Bronze, Silver, Gold Platinum and Platinum + Club levels are also available for children to work through, as they continue to rise to the timed challenge.

99 Club Sheets should be collated into a booklet, to keep a record of pupils' prior attempts. Weekly scores and children's progress through the levels should be recorded by teachers.

30:20

As with developing a secure knowledge of times tables and related division facts, it is vital pupils acquire effective wider arithmetic skills, demonstrating increased fluency in mental calculation within the four operations and application of this to specific mathematical contexts e.g. using knowledge of division and multiplication to find fractions or percentages of amounts.

Acquiring fluency in arithmetic takes frequent practise and an emphasis on increasing the pace of working. 30:20 represents 30 arithmetic questions undertaken independently within a timed limit of 20 minutes. It aims to develop children's 'number sense' and ability to quickly choose and apply the most appropriate method for the task at hand.

Questions posed should include a range of calculations, covering the four operations and be pitched within the key maths objectives for the children's year group. As well as keeping a record of how many correct answers a pupil scores, noting how many questions children are attempting within the time limit is also valuable for teachers, in terms of measuring children's mathematical progress and confidence levels. 30:20 sheets should be stuck into pupils' maths books.