



Sutton CE (VC) Primary School

Times Table Policy

November 2022



Mathematics Vision Statement

At Sutton, all pupils STRIVE to be confident, fluent and curious mathematicians who appreciate the beauty/power and creativity of the subject. Together we are on a journey to develop our mathematics mastery curriculum, which allows every child to achieve a deep knowledge and understanding of each mathematical concepts taught.

Key Features of our Mastery Curriculum:

- We learn together through mathematical thinking and language.
- Children value and gently challenge each other's ideas
- Children are fluent in the fundamentals of mathematics: We start with a foundation of number sense and place value
- We have high expectations of every child and STRIVE for excellence in their work.
- Reasoning and Problem solving is central
- We use resources to support children's mathematical understanding.
- We can calculate with confidence.

Introduction

Times tables form a valuable foundation of understanding in mental arithmetic and are at the core of many other mathematical concepts. When children have learnt and retained their times tables, they are able to apply this knowledge with a greater confidence to a variety of areas of Mathematics. Therefore, they will be able to extend their knowledge and understanding further.

Aims

- To raise the profile of the teaching of times tables and to raise the overall knowledge of times table facts across the school
- To explain the expected practices to ensure children understand the concepts of multiplication and division.
- To ensure continuity in practices and progression in times tables
- To ensure the successful times table teaching and learning at Sutton Primary.

National Curriculum Expectations

Year 1	<ul style="list-style-type: none">• Count in multiples of 2, 5 and 10.• Recall and use all doubles to 10 and corresponding halves
Year 2	<ul style="list-style-type: none">• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
Year 3	<ul style="list-style-type: none">• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
Year 4	<ul style="list-style-type: none">• Recall and use multiplication and division facts for multiplication tables up to 12x12.
Year 5	<ul style="list-style-type: none">• Revision of all times tables and division facts up to 12x12.
Year 6	<ul style="list-style-type: none">• Revision of all times tables and division facts up to 12x12.

Teaching Progression at Sutton

Year 1	<ul style="list-style-type: none">• Count in multiples of 2, 5 and 10.• Recall and use all doubles to 10 and corresponding halves
Year 2	<ul style="list-style-type: none">• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.• To begin to recall their 3x table.
Year 3	<ul style="list-style-type: none">• Recall and use multiplication and division facts for the 3, 4, 6, 7, 8, 9, 11 and 12 multiplication tables.
Year 4	<ul style="list-style-type: none">• Recall and use multiplication and division facts for multiplication tables up to 12x12 at speed.
Year 5 & 6	<ul style="list-style-type: none">• Revision of all times tables and division facts up to 12x12 including multiplying and dividing by powers of 10.

Teaching Times Tables

The teaching of times tables at Sutton is embedded within Maths lessons and explicitly taught through the teaching the concepts, connections and patterns: practising them using a balance of conceptual and procedural activities. At Sutton, times tables will be taught through a dual approach with children encouraged to STRIVE to become proficient at fluency and develop a secure conceptual understanding.

Fluency is when a child has a quick recall of basic times table facts including the related division facts.

Conceptual understanding is having a firm understanding of what we mean by 'multiply' and 'divide'. For example to explain using equipment, drawings and diagrams that $3 \times 4 = 12$ is the same as having 3 groups of 4 objects.

Children will regularly have a mathematics lesson to immerse the children in a times table. This will involve both direct teaching of the times table and giving children opportunities to explore the concept using the school's build it, say it, write it, draw it approach. Children will be encouraged to develop their reasoning skills and use of mathematical vocabulary by making links between tables and describing patterns they can see. After this times tables, will be taught and practiced in 10 minute slots throughout the week as shown below:

Year Group	Immersive whole lesson	Continuous practice
½	1x every half term.	At least 3x 10 min sessions a week including at least 1x conceptual
¾	1x month (as new table is introduced)	At least 3x week including at least 1x conceptual lesson. TTRS opportunities at least 1x week per child in class.
5/6	1x week of maths starters	At least 1x week starters – more when unit is multiplication, division or fractions based.

We believe in providing a variety of approaches including verbal, visual, interactive and rote learning as well as the use of technology to embed the full times table knowledge by the time the children enter Year 5. As far as possible children should be given access to a range of resources and tools to represent and explore a times table. For example:

- Bead strings
- Arrays
- Numicon
- Grouping sets of objects
- Counting sticks
- Hundred squares
- Times table grids

As far as possible fluency recall should be fun and is a great place to participate in active maths songs, games and art. Ideas and resources for both teaching fluency and conceptual understanding are saved directly onto the school server and are accessible for all members of staff.

Mastery

It is expected that children will be at varying stages in their times table journey. It is important that all teachers identify less confident children and provide extra support in developing the concept of multiplication. It is our expectation and belief that all children can learn their times tables and so the whole class will move onto the next times table at the teacher's discretion. The exception to this is where children are working significantly below their peers and require a bespoke approach. This will be identified in their APDR. Children working at greater depth are encouraged to explore their conceptual understanding of a times table showing creativity in representation and making links between multiplication facts and other areas of the maths curriculum. Teachers will regularly revise previously learnt multiplication tables throughout the year.

Display and Learning Environment

The current times tables for the class should be on display in the classroom, for children to use as support and reference. The display should include the recall of facts alongside examples of conceptual representation. Where

possible the say it, build it, draw it, write it approach should be referred to. Children should have access to copies of times table grids and lists to support them in their lessons.

Home Learning

Children are expected to practice times tables and related division facts as part of their Maths homework.

Times Table Rock Stars is a home learning tool to which all pupils from Year 1 to 6 have access. It is a carefully sequenced programme of daily times tables practice. Teachers will set the table on which their class is working. Children who are unable to access the internet or a device at home will have time to use TTRS in school.

Alternative online times tables practice has also been shared with parents and all teaching staff in the school as well in order to give children a wider range of resources to use.

Online times table games	Hit the button interactive game for times tables (Year 2+)- https://www.topmarks.co.uk/maths-games/hit-the-button Bubble Pop (Year 1+) https://mathsframe.co.uk/en/resources/resource/245/Bubble-Pop-Multiplication Maths Fishing Year 1-5 https://mathsframe.co.uk/en/resources/resource/306/Maths-Fishing-Multiplication Arithmetic Practice (Key Stage 2) https://phet.colorado.edu/en/simulation/arithmetric
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Assessment

Children in years 3-6 will complete a Sound Check every half term on TTRS. Class teachers and the maths lead will monitor the heat maps on TTRS to ensure progress is being made. Heat maps will be printed and given to parents at parents' evenings.

Year 4 will complete the MTC in June. Children will have the opportunity to practice on a similar program in the run up to the check.

Children will regularly have the chance to earn their next times table certificate to celebrate their achievements in this area. Certificates will be shared in the school's STRIVE Assembly.

1		Sky Blue Topaz	doubling with equipment
2		Swiss Blue Topaz	doubling and halving with equipment
3		Pink Imperial Topaz	doubling without equipment
4		Reddish-pink Imperial Topaz	halving and 10 x
5		Mystic Topaz	doubling, halving and 10 x

6		Azotic Topaz	divide by 10
7		Black Opal	2 x, 5 x, 10 x multiplication and division facts
8		Emerald	2 x, 3 x, 4 x, 5 x, 10 x multiplication and division facts
9		Ruby	2 x, 5 x, 10 x, 3 x, 4 x, 6 x, 7 x, 8 x multiplication and division facts.
10		Sapphire	all multiplication and division facts to 12 x 12
11		Diamond	all multiplication and division facts to 12 x 12 and complete the grid in under five minutes
12		Blue Diamond	elite level in all areas of multiplication and division