Mathematics in Year 1

Welcome to Year 1

Children starting at STA in Foundation Stage are encouraged to explore Mathematics through the world around them as they begin to make their first links between objects and numbers, shape and days, time and months of the year.

At Sir Thomas Abney, we follow the National Curriculum for Mathematics and as children move to year 1 we begin a programme called Mathematics Mastery. The core principles of the scheme are that:

- Fewer topics are taught but to greater depth
- Mastery for all pupils
- Number sense and place value come first
- Problem solving is central
- Children are encouraged to talk about maths and explain their reasoning

Pupils are not going to be 'climbing' the curriculum, but going deeper into it. In Year 1 it is imperative that pupils have a full understanding of number sense, number bonds and place values, as all number work in Maths builds on what is taught here.

10 maths skills your child should have by the end of Year 1

Pupils are developing fluency, reasoning skills and their ability to solve problems through the following mathematical content:

1. Counting to 100 and just across 100, forwards and backwards, beginning with zero or one, or from any given number.

2. Counting, reading and writing numbers to 100 in numerals and numbers one to 20 in numerals and words; counting in multiples of two, five and ten.

3. Given a number within 100, identifying one more and one less.

4. Representing and using number bonds and related subtraction facts within 20 eg 2+18 =20.

5. Solving one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and solving missing-number problems

6. Solving problems that involve grouping and sharing, including halving and doubling

7. Comparing, describing and solving practical problems for length and height, mass or weight, and capacity and volume.

8. Comparing, describing and solving practical problems for time and telling the time to the hour and half past the hour; drawing the hands on a clock face to show these times

9. Recognising and naming common 2-D shapes, including rectangles (including squares), circles and triangles.

10. Recognising and naming common 3-D shapes, including cubes, pyramids and spheres.

Everyday maths at home to help your child

1. Children take turns to bring home the Maths Monkey— help your child to explore numbers around them and record their experiences in the book.

2. Help them to complete their maths homework and raise any concerns you have with the teacher if they are finding their homework practice counting in 2's, 5's and 10's

3. Practice number bonds to 20.

4. Talk about the maths involved in everyday activities such as cooking, shopping and telling the time.

5. Help them to understand simple units of measuring involving height, length or weight (height charts are great for this).

6. Play games with your child such as Snakes and Ladders or any dice or counting games.

By the end of Year 1 your child should be able to:

1. Count to 100 and just across 100, forwards and backwards, beginning with zero or one, or from any given number.
2. Read and write numbers to 100 as words or numerals.
3. Know their number bonds to 20, eg 2+18 =20
4. Add 1 more or 1 less to any number up to 100.
5. Count in multiples of 2, 5 and 10 (5, 10, 15, 20).
6. Understand the idea of halving or doubling a whole number (eg 5 is half of 10).
7. Tell the time to the hour, and half past the hour.
8. Recognise and name common 2D shapes such as squares, triangles, rectangles and circles.
9. Recognise and name common 3D shapes such as cubes, pyramids and spheres.

Curriculum Map and Programme of Study for Year 1

Below you will find the links to the Curriculum Map and Programme of Study for the year which give the general structure that teachers will follow when planning. This can be altered due to other events on the timetable or because it is felt that more or less time needs to be spent on a particular topic:

https://sirthomasabney.hackney.sch.uk/wp-content/uploads/2019/06/Year-1-Curriculum-Map.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf

For further information and an outline of the Year 1 Mathematics curriculum visit:

https://www.mathematicsmastery.org/

Mathematics Mastery

Curriculum Map: Year 1

Autumn

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Numbers to 10		**Addition and subtraction within 10**		**Shape and patterns**		**Numbers to 20**		**Addition and subtraction within 20**	
• Represent, compare and explore numbers within 10 • One more and one less • Doubling and halving		• Represent and explain addition and subtraction • Commutativity • Addition and subtraction facts		• Identify, describe, sort and classify 2-D and 3-D shapes • Investigate repeating patterns • Use and follow instructional and positional language		• Identify, represent, compare and order numbers to 20 • Doubling and halving • One more and one less		• Represent and explain addition and subtraction strategies including 'Make Ten' • Use known facts to add and subtract	

Spring

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Time		**Exploring calculation strategies within 20**	**Numbers to 50**		**Addition and subtraction within 20**		**Fractions**	**Measures: Length and mass**	
• Read, write and tell the time to o'clock and half past on analogue clock • Sequencing daily activities • Whole and half turns linked to time		• Model, explain and choose addition and subtraction strategies	• 2-digit numbers – represent, sequence, explore, compare. • Count in 2s, 5s and 10s • Describe and complete number patterns		• Illustrate, explain and link addition and subtraction with equations • Apply 'Make Ten' strategy • Use language to quantify and compare difference		• Identify $\frac{1}{2}$ and $\frac{1}{4}$ of a shape or object • Find $\frac{1}{2}$ and $\frac{1}{4}$ of a quantity	• Compare and measure lengths and mass using cm and kg • Doubling and halving	

Summer

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Numbers 50 to 100 and beyond		**Addition and subtraction**		**Money**		**Multiplication and division**		**Measures: Capacity and volume**	
• Read, write, represent, compare and order numbers to 100 • One more / fewer, ten more / fewer • Identify number patterns		• Explore addition and subtraction involving 2-digit numbers and ones • Represent and explain addition and subtraction with regrouping • Investigate number bonds within 20		• Name coins and notes and understand their value • Represent the same value using different coins • Find change		• Share equally into groups • Doubling • Link halving to fractions • Add equal groups • Explore arrays		• Compare capacities, volumes and lengths • Explore litres • Apply understanding of fractions to capacity	

The Dimensions of Depth - Conceptual Understanding, Language and Communication and Mathematical Thinking - underpin all aspects of the curriculum; problem solving is at the heart and is embedded in all units.