Year 1 – Becoming an 'exceeding Mathematician'

We have put together the following guide to help our parents and carers support their children at home with Maths and help them become an 'exceeding Mathematician'! An 'exceeding Mathematician' is a child that has mastered the content of their year group curriculum beyond that of the 'expected' standard. When assessing children in school, we have found that often children master the procedures and are fluent, but find applying the concepts more difficult.

A child working at 'exceeding' will be able to:

- access maths problems presented in a wide range of different, complex ways;
- be able to justify and prove their mathematical thinking when reasoning;
- Ask their own mathematical questions and follow their own lines of enquiry when exploring an open-ended maths problem.

One of the most important ways children can be supported is to encourage their reasoning about maths – can they explain why they think they have found the answer? Can they prove something is true or false? Can they say how things are similar/ different? Reasoning includes being able to explain verbally or in written form, using the correct mathematical vocabulary.

If a child is working at an 'exceeding' level in Maths they need to be able to complete most of the 'exceeding' statement this list and the 'expected 'statements will be embedded. If you have any concerns about your child's maths learning please book an appointment with their class teacher to discuss their maths level further.

Exceeding statements	How I can help at home…
Number and Place Value: **Demonstrate fluency when counting to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number and when counting in multiples of 2s, 5s and 10s.** **Consistently identify 1 more and 1 less from a given number and use in solving problems.** **Identify and represent numbers using increasingly complex representations including the number line.** **Consistently use the language of: equal to, more than, less than (fewer), most, least accurately when comparing numbers and expressions.**	Play counting games, starting from different numbers, ensuring that they count forwards and backwards. Including counting in 2s, 5s and 10s. Encourage them to use the correct language and explain their reasoning, e.g. What does each number always end in when I count in 5s? Why? What happens if I start from 3 and count in 5s?
Addition and Subtraction: **Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs.** **Recall and use number facts to 20 fluently and use these to derive new unknown facts.** **Add and subtract one-digit and two-digit numbers to 20 mentally.** **Solve two-step problems that involve addition and subtraction, using concrete objects and pictorial representations.** **Solve and missing number problems using a wider range of numbers.**	Encourage them to use physical objects when completing addition and subtractions problems. Encourage them to draw their methods and talk about how they know they have the right answer.
Multiplication and Division: **Count in 2s, 5s, and 10 from 0 to answer questions involving x facts.** **Begin to understand division as the inverse of multiplication and use facts in problem solving.** **Recall doubles and halves of numbers to 20.** **Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and**	Practice counting in 2s, 5s and 10s. Practice recalling doubles and halves. Encourage them to use physical objects when completing multiplication and division problems. Encourage them to draw their methods and talk about how they know they have the right answer.

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arrays.	
Fractions: **Recognise, find and name a half and quarter of a length, shape, set of objects or quantity.**	Discuss halves and quarters related to everyday situations e.g. eating dinners/ snacks – if you have eaten a quarter of you snack how much do you have left?
Measures: **Use knowledge of measures in solving problems of increasingly complexity.** **Solve more complex problems involving money and other measures including time.** **Be able to apply knowledge of measures to other curriculum areas in practical activities.**	Encourage them to use money and discuss how much they need, how much they have left. Talk about the time – what time is it? How much time is left until…?
Properties of Shapes: **Compare and sort shapes using 1 criterion.** **Recognise and name common 2-D and 3-D shapes, describing their properties using increasingly sophisticated mathematical vocabulary.** **Reason about and solve more complex problems relating to shapes and their properties.**	Talk about objects at home and what shapes they are – encourage them to explain how they know using correct vocabulary (a list is available if needed). 2-D shapes - rectangles (including squares), circles and triangles 3-D shapes - for example, cuboids (including cubes), pyramids and spheres.
Position and Movement: **Apply knowledge of position to problem solving across the curriculum.** **Solve more complex problems involving position and movement.**	Talk about whole, half, quarter and three-quarter turns – physically turn through them.

Please do not feel compelled to complete all the suggestions all the time. Any support, however small, will help your child to make progress.