

Sheen Mount Primary School



Mathematics Guide for Parents

Foundation Stage & Key Stage 1



Our aim at Sheen Mount is for all children to enjoy maths and find it fun! We bring numbers to life and make them meaningful to the children by using the physical environment, before teaching the more formal methods and vocabulary.

The maths work your child is doing at school may look very different to the kind of 'sums' you remember. This is because the children are encouraged to recognise patterns, work mentally where possible and use personal jottings to help support their thinking. Problem solving is a large part of the maths curriculum. We encourage the children to think of different ways to solve problems and to explain their thinking orally and in written forms. Discussing maths and talking about solutions to problems all contribute to the development of maths vocabulary and speaking and listening skills. There has always been a strong emphasis on oral work throughout all the Key Stages with children talking about their experiences with each other and with adults. In this way they are able to clarify their thinking and practise using their mathematical language. When children first come to school they are curious about their world and are motivated, enthusiastic and engaged by the mathematical experiences they are offered and by those they initiate for themselves. This continues throughout their school life and such experiences should be nurtured at home.

- The children may count aloud or through songs in ones, fives and tens, using fingers and hands to illustrate each step.
- They count in twos to count items such as pairs of socks on a washing line or the number of children lining up in twos.
- When the children count in ones, they know the number before and after a given number and begin to relate this to a number that is one more or one less/ten more or ten less.
- They know number pairs, for example making five fingers by showing two on one hand and three on the other.
- They play games like number splat and number/times table ping pong.
- They share their learning with friends through pair share discussion and paired games.
- They are active in their maths learning through maths aerobics.

With this in mind, we have produced this booklet to provide parents with an understanding of how the children learn number at Sheen Mount, to explain the methods we use to teach number, as well as offering a range of ideas for you to use at home to support your child.



Ideas and activities to help at home

- Practise chanting the number names. Encourage your child to join in with you. When they are confident, try starting from different numbers—4, 5, 6.....
- Sing number rhymes together—there are lots of commercial downloads and CDs available.
- Give your child the opportunity to count a range of interesting objects (coins, pasta, shapes, buttons etc.). Encourage them to touch and move each object as they count.
- Count things you cannot touch or see (more difficult!!). Try lights on the ceiling, window panes, jumps, claps or oranges in a bag.
- Play games that involve counting (e.g. snakes and ladders, dice games, games that involve counting objects).
- Look for numerals in the environment. You can spot the numerals at home, in the street or when out shopping.
- Cut out numerals from newspapers, magazines or birthday cards. Then help your child to put the numbers in order. Play 'Snap' with number cards.
- Make mistakes when chanting, counting or ordering numbers. Can your child spot what you have done wrong?
- Choose a 'number of the week' e.g. Practise counting to 5 and on from 5. Count out groups of 5 objects (5 dolls, 5 bricks, 5 pens). See how many places you can spot the numeral 5.
- Halve and doubling numbers, ordering random numbers, counting in 2s, 5s and 10s.
- Learning number bonds up to ten using objects or fingers. Give your child a number up to ten and ask your child to give you the different ways of making it e.g. 7 could be made by adding $6 + 1$ or $5 + 2$ etc.
- Throw two or more dice. Ask your child to find the total of the numbers (+) and the difference between (-). Can they do this in their heads?
- Use a set of playing cards. Turn over two (progressing to three or more) cards and ask your child to add or subtract them. If they answer correctly, they keep the cards. How many cards can they collect in two minutes?
- Play 'ping pong' to practise number bonds with your child. You say a number. They reply with how much more is needed to make 5, 10 and 20. Encourage your child to answer questions quickly, without counting or using their fingers.
- Plan an outing during the holidays. Ask your child to think about what time you will need to set off and how much money you will need to take.

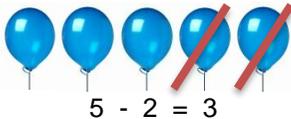


Subtraction

Minus - take
Takeaway Left

Children are taught to understand subtraction as taking away (counting back) and finding the difference between (counting up/on)

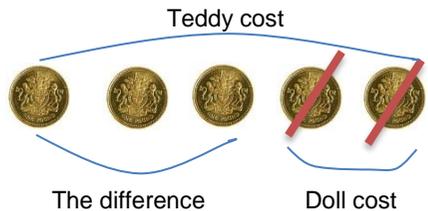
Method one – taking away from the group



I had five balloons. Two burst.
How many do I have left?

The children will use number lines and objects such as counters to support their counting back.

Method two – subtraction as finding the difference



A teddy bear costs £5 and a doll costs £2. How much more does the teddy bear cost?

Method three – partitioning

Step one
Partition the number being taken away

$$27 - 13 =$$

$$\begin{array}{r} 10 \\ 3 \end{array}$$

Step two
Take away the tens number

$$27 - 10 = 17$$

Step three
From the answer to step two take away the units

$$17 - 3 = 14$$

Method four – empty number line to count back

Step one
Partition the number to be taken away

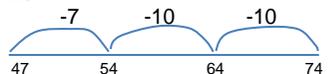
$$74 - 27 = 47$$

$$\begin{array}{r} 20 \\ 7 \end{array}$$

Step two
Draw an empty number line

74

Step three
Count back in tens and units



Multiplication

Times x lots of groups of
 Array multiply repeated addition
 Multiplied by

Children are taught to understand multiplication as repeated addition and then as arrays and multiplication. We learn all our 2, 5 and 10 times tables by the end of KS1 and apply this understanding in their calculations.

Method one – repeated addition

Each child has two eyes. How many eyes do four children have?



$$2 + 2 + 2 + 2 = 8$$

4 lots / groups of 2 or 4×2

There are 6 eggs in a box. How many eggs are there in 3 boxes?



$$6 + 6 + 6 = 18$$

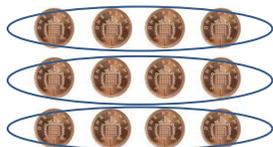
3 lots of / groups of $6 = 3 \times 6 = 18$

Method two – arrays

An array is the arrangement of a set of objects into equal groups of columns and rows.

A sweet costs 4p. How much do 3 sweets cost?

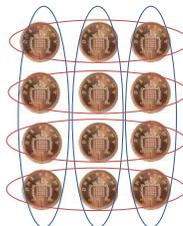
Draw 3 rows of 4p.



$$3 \text{ lots of } 4p = 4p + 4p + 4p = 3 \times 4 = 12$$

This can also be drawn as 3 columns of 4p.

This helps to develop the understanding that 4×3 is the same as 3×4

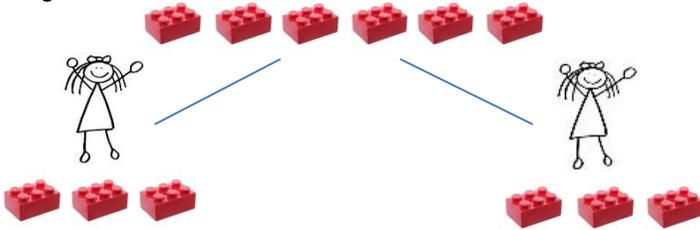


Division

Divided into \div share equally
Divided by left over
remainder

Children are taught to understand division as sharing equally and grouping equally. By the end of KS1 children are encouraged to apply their understanding of multiplication to help them with their division calculations.

6 bricks are shared equally between 2 children. How many bricks does each child get?

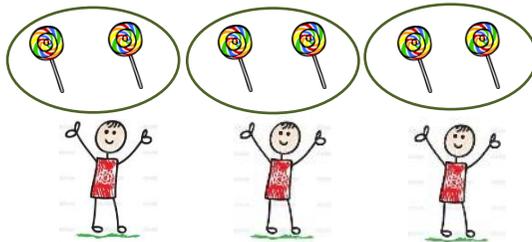


6 shared between 2 children = 3

$$6 \div 2 = 3$$

Six shared between 2 = 3

There are 6 lollipops. How many children get 2 each?



$$6 \div 2 = 3$$

6 put into groups of 2 = 3

Helpful Websites for Maths Games and resources

www.ictgames.com

<http://www.bbc.co.uk/education/subjects/zjxhfg8>

<http://resources.woodlands-junior.kent.sch.uk/maths/>

www.nrich.maths.org

<http://www.amathsdictionaryforkids.com/dictionary.html>

Notes: