Supporting and learning together

Addition and multiplication

Key Stage 1

Aims of today

- To outline the KS1 Maths curriculum for addition and multiplication
- To share how your children are learning Maths in school and methods to support this
- To give you some ideas of how to help your child's Maths learning at home
- To give you a pack of resources with ideas of you can use them to support your child at home
- To answer any questions you may have about Maths in our school

National Curriculum

The aim of the National Curriculum aims to ensure that children are fluent, can reason mathematically and solve problems

Year 1 Addition

Children need to:

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9

Year 2 Addition

Children need to:

- solve problems with addition and subtraction using concrete objects and pictorial representations
- apply their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally
- show that addition of two numbers can be done in any order (commutative)
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations

National Curriculum

Year 1 Multiplication

Children need to:

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Year 2 Multiplication

Children need to:

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative)
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication facts, including problems in contexts.

Why is addition and multiplication important?

Addition and multiplication skills underpin many areas of Maths...

Area

Fractions

Decimals

Subtraction

Algebra

Division

Percentages

Why is addition and multiplication important?

Addition and multiplication skills are needed in everyday life...

Party planning –
Let's say that 8 friends are coming to your party and you are getting food. How much food will each friend get?

Cooking & baking

Equipment for building

Maths at Merrylands uses the principles of 'Concrete, Pictorial, Abstract' (CPA):

- 'Concrete' – where the children use equipment, such as blocks and counters, that can be moved and manipulated to represent calculations

- 'Pictorial' - where the children may use or draw pictures to represent calculations

- 'Abstract' - where the children use numbers and symbols to show calculations.

To achieve mastery in Maths children need to be able to demonstrate:

- *Fluency – recalling key mathematical facts and methods efficiently*
- *Reasoning – being able to talk, explain and challenge their own answers and others*
- *Problem solving – applying their mathematical skills to make connections so they can answer a multi step problem*

Lesson outline

In KS1 we work towards this type of lesson:

- A mental maths starter
- Introduce learning and recap prior knowledge
- Model skills needed and vocabulary
- Answer a question as a class using skills and correct vocabulary
- Children to independently answer a question
- Discuss as a class
- Children then answer a range of questions linked to new learning
- Discuss new learning and address misconceptions

Lesson

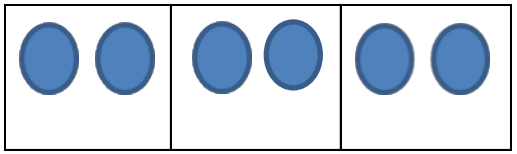
Mental starter

- Super movers – each lesson has a mental maths starter

https://www.bbc.co.uk/teach/supermovers/ks1-maths-the-2-times-table-with-bridget-the-lioness/zrrx92p

Lesson

Complete the sentences below to describe the equal groups.



____ + ____ + ____ = 6

___ x ___ = 6

There are ____ equal groups with ____ in each group.
There are three _____.

Now can you draw 5 equal groups with 2 in each group.

Let's write our different number sentences

____ + ____ + ____ + ____ + ____ =

____ x ____ =

Activity - Year 2

Complete:

Three 2s	Draw It	Addition	Multiplication
There are 3 equal groups with 2 in each group.			

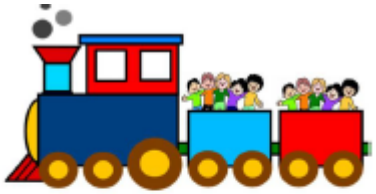
Write a story for the calculation 4×10

Draw an image to illustrate your story.

With 12 cubes, how many different arrays can you create?

Once you have created your array complete:

___ × ___ = ___ × ___



2×5
$5 + 5$
5×2

Each calculation could explain the image.

Explain why.

Draw an array to show:

$4 \times 5 = 5 \times 4$
3 lots of 10 = 10 lots of 3

Activity - Year 1

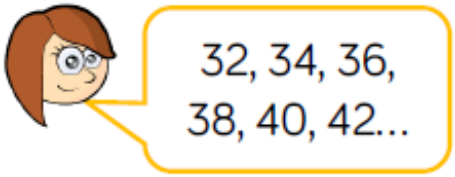
How many socks are there?

There are ___ socks in total.

How many gloves are there?

There are ___ gloves in total.

Jess thinks that if she continues counting in 2s, she will say the number 49

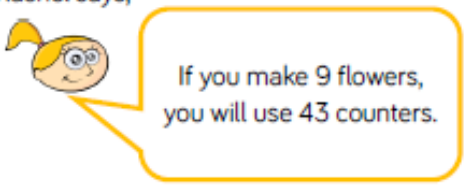


Do you agree?

Explain why.

Amy is making this flower pattern with counters.

Rachel says,



Do you agree with Rachel?

Explain your answer.

Jenson counts the pencils in 5s.
He says he has 25 pencils.

Do you agree with Jenson?

Explain your answer.

Supporting at home

https://play.ttrockstars.com/ttrs/online/play?mode=garage

http://www.merrylandsprimaryschool.co.uk/ParentsInfo.php

Pack

https://www.readinga-z.com/book.php?id=2374

Any questions