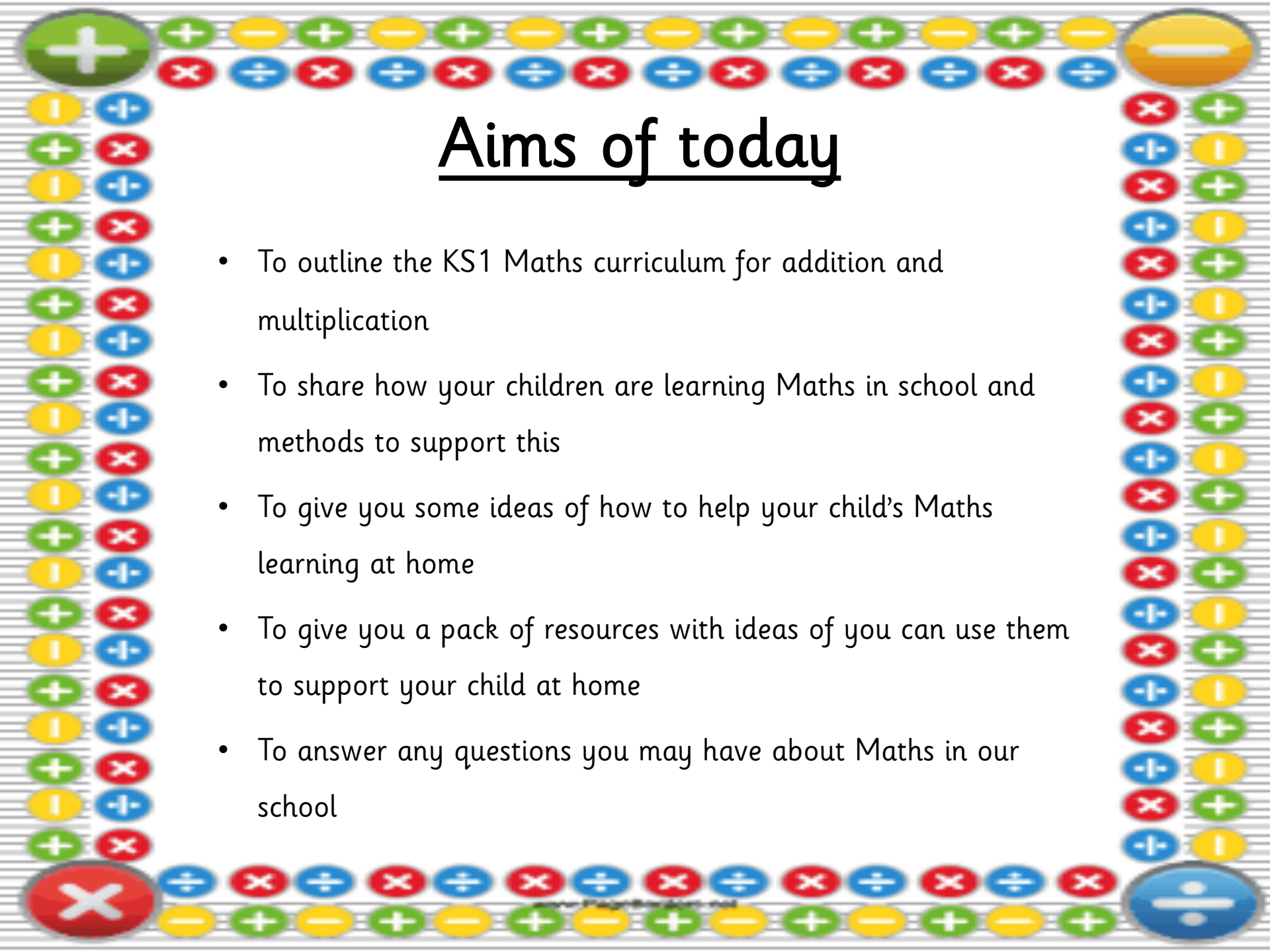




# Supporting and learning together

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

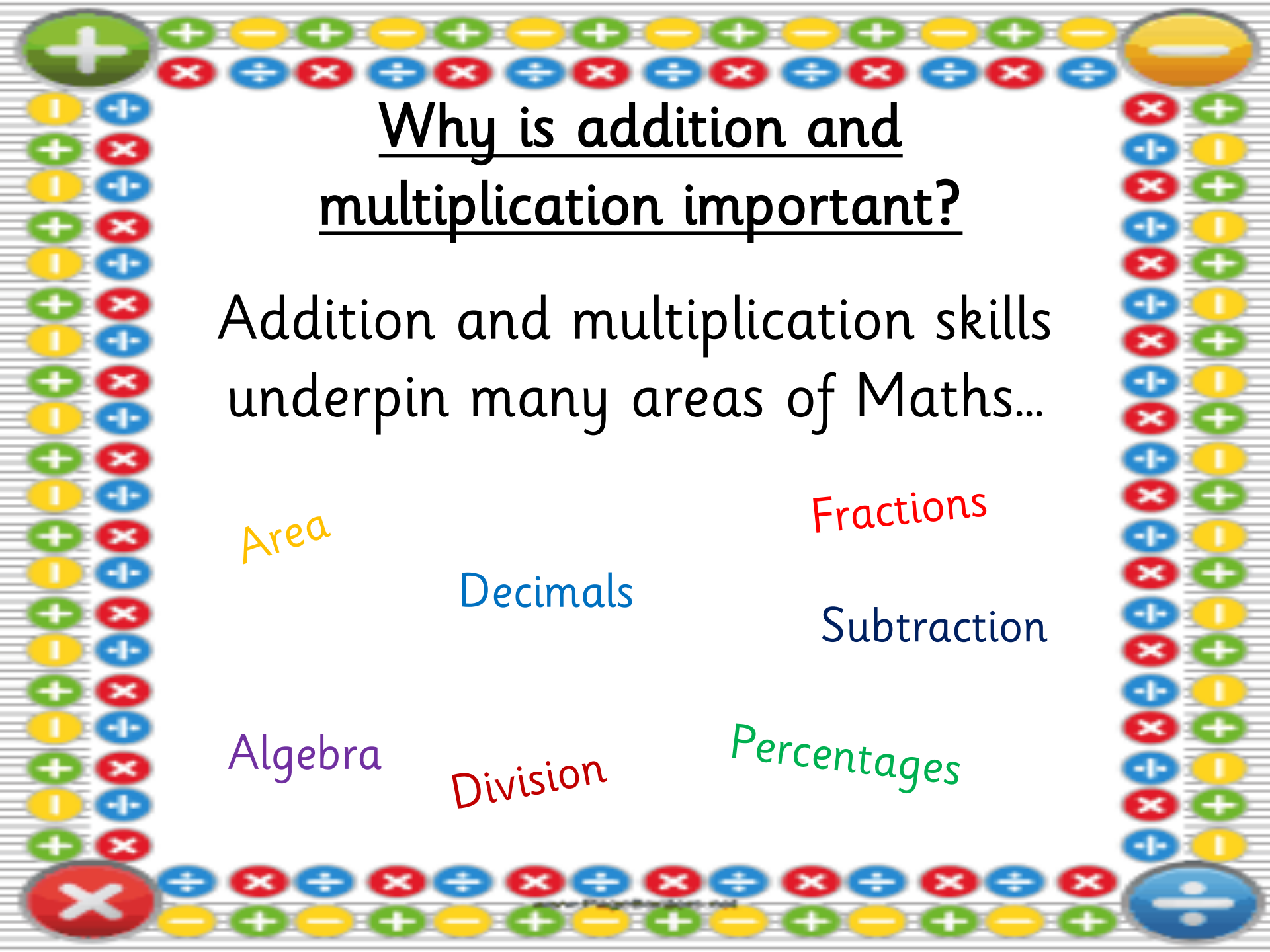
Children need to:

- 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 ( $\times$ ), division ( $\div$ ) 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?

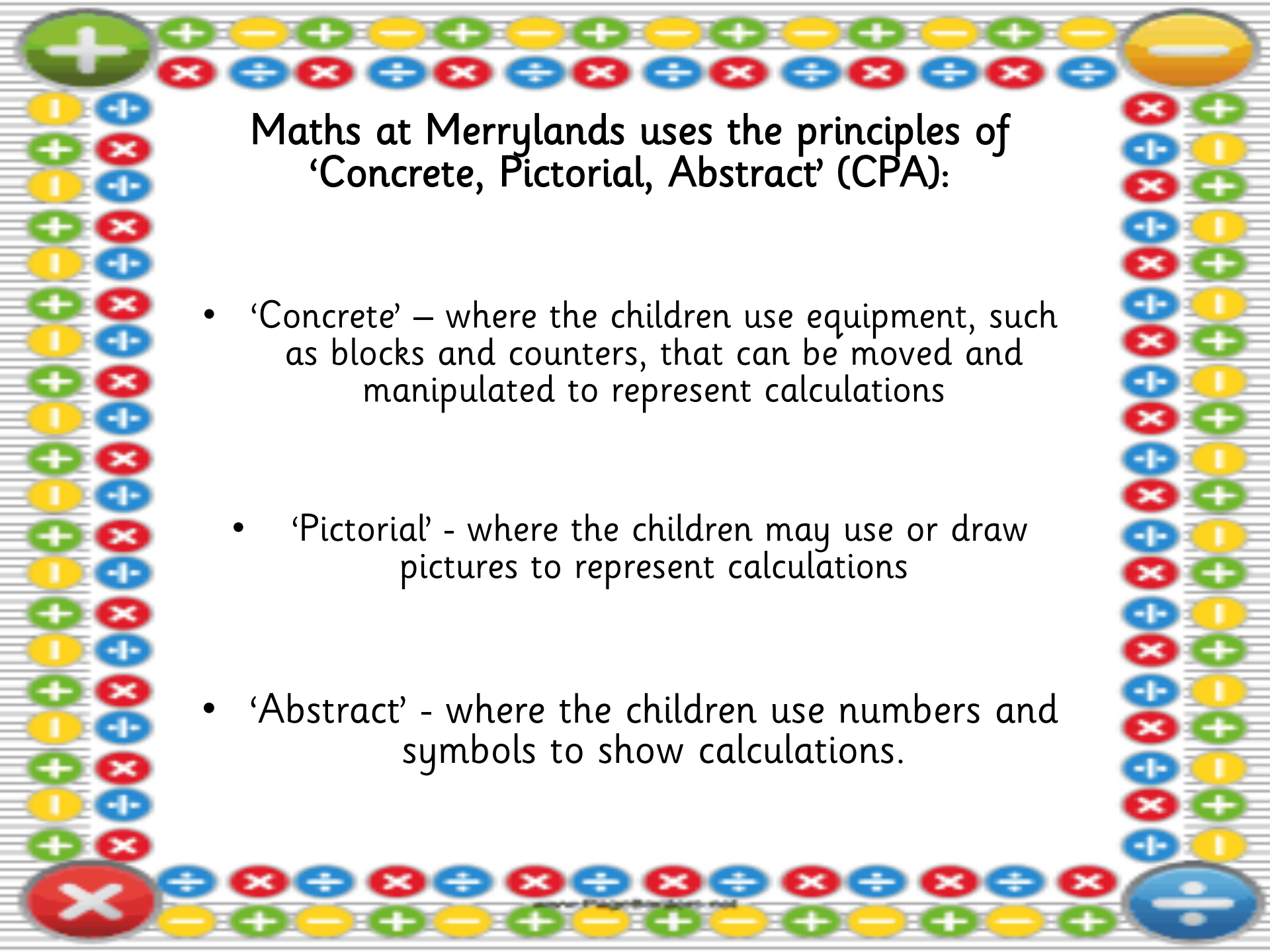


*Cooking & baking*



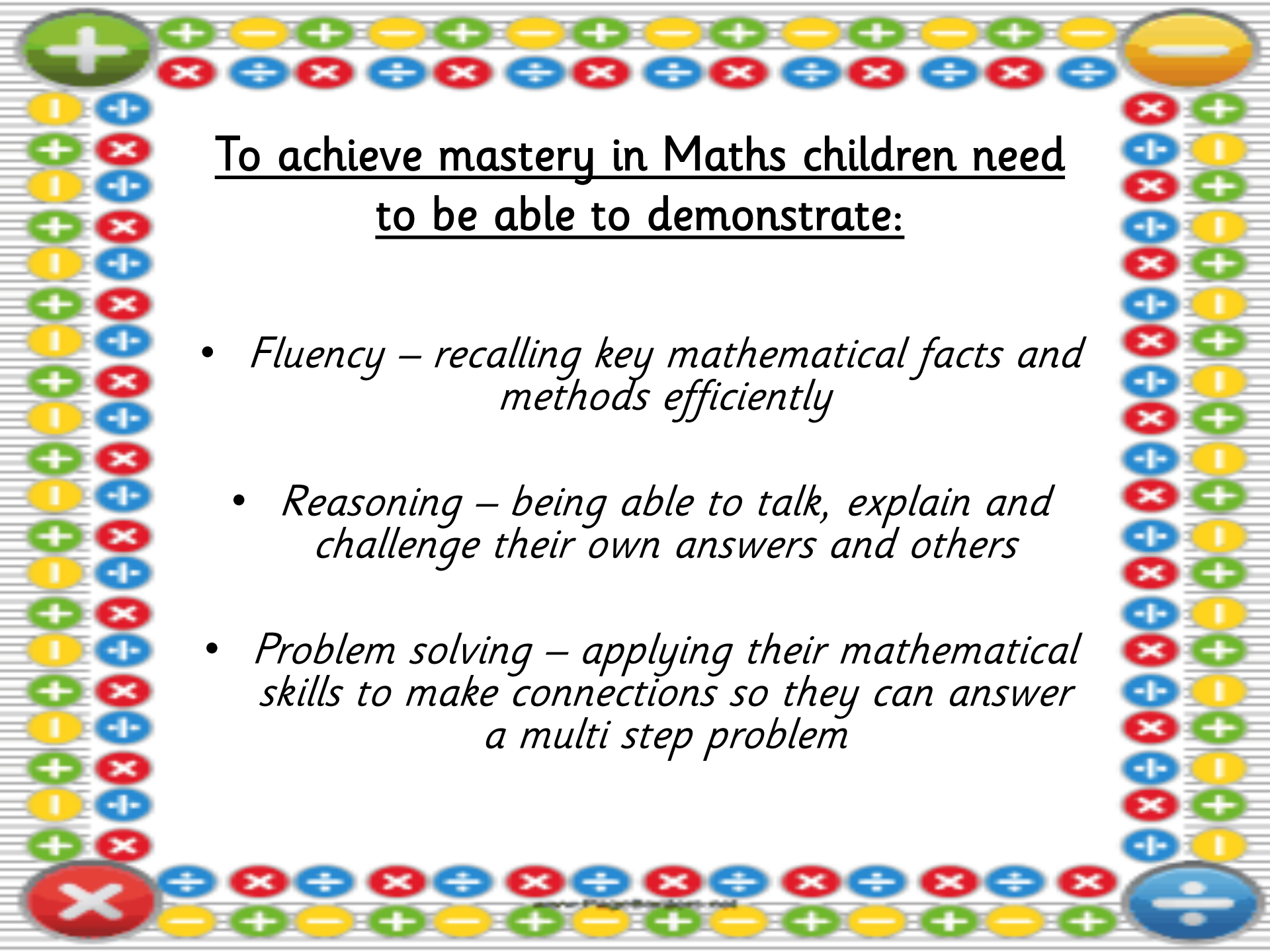
Equipment for building



A decorative border surrounds the text, consisting of a grid of small circular icons. The icons include mathematical symbols: plus (+), minus (-), multiplication (x), and division (÷). The colors of the icons are green, yellow, red, and blue. The border is thicker at the corners, with larger icons for addition (+) at the top-left, subtraction (-) at the top-right, multiplication (x) at the bottom-left, and division (÷) at the bottom-right.

## 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



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Lesson

A decorative border surrounds the text, consisting of a grid of small circular icons. The top row features a large green plus sign on the left and a large yellow minus sign on the right. The bottom row features a large red multiplication sign on the left and a large blue division sign on the right. The remaining space is filled with smaller icons of plus, minus, multiplication, and division signs in various colors (green, yellow, red, blue) arranged in a repeating pattern.

# Mental starter

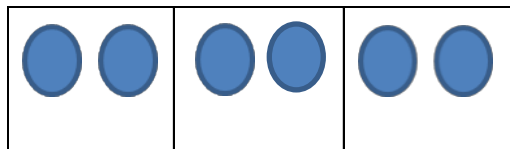
- Super movers – each lesson has a mental maths starter

<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.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = 6$$
$$\underline{\quad} \times \underline{\quad} = 6$$

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

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} =$$

$$\underline{\quad} \times \underline{\quad} =$$

# Activity - Year 2

Complete:

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



$$\begin{aligned} 2 \times 5 \\ 5 + 5 \\ 5 \times 2 \end{aligned}$$

Each calculation could explain the image.

Explain why.

Write a story for the calculation  $4 \times 10$

Draw an image to illustrate your story.

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

Once you have created your array complete:

$$\_\_ \times \_\_ = \_\_ \times \_\_$$

Draw an array to show:

$$4 \times 5 = 5 \times 4$$

$$3 \text{ lots of } 10 = 10 \text{ lots of } 3$$

# Activity - Year 1

How many socks are there?



There are \_\_\_ socks in total.

How many gloves are there?



There are \_\_\_ gloves in total.

Amy is making this flower pattern with counters.



Rachel says,



If you make 9 flowers, you will use 43 counters.

Do you agree with Rachel?

Explain your answer.

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



32, 34, 36,  
38, 40, 42...

Do you agree?

Explain why.

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



0



5



10



15



20




25

Do you agree with Jenson?

Explain your answer.



A decorative border surrounds the page, featuring a repeating pattern of mathematical symbols: plus (+), minus (-), multiplication (x), and division (÷). The symbols are arranged in a grid-like pattern, with some larger symbols at the corners. The colors of the symbols include green, yellow, red, and blue.

# Supporting at home

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

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

Pack

<https://www.readingaz.com/book.php?id=2374>

A decorative border surrounds the text, composed of various mathematical symbols in colored circles. The top border features a large green plus sign on the left and a large yellow minus sign on the right. The bottom border features a large red multiplication sign on the left and a large blue division sign on the right. The sides are filled with smaller symbols: the left side has a repeating pattern of minus, plus, minus, plus, and the right side has a repeating pattern of multiplication, plus, multiplication, plus. The top and bottom inner borders also contain repeating patterns of plus, minus, multiplication, and division symbols.

*Any questions*