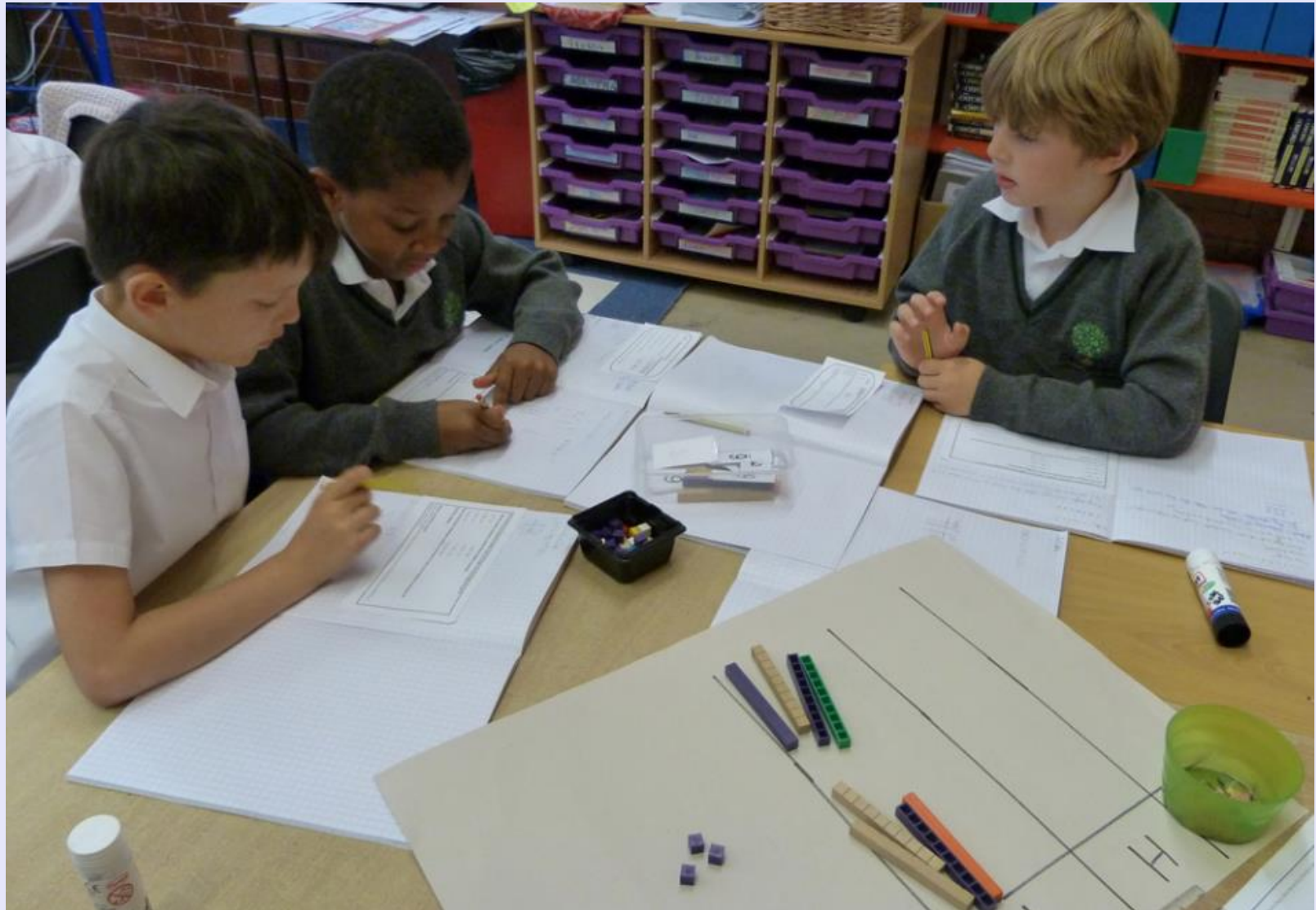
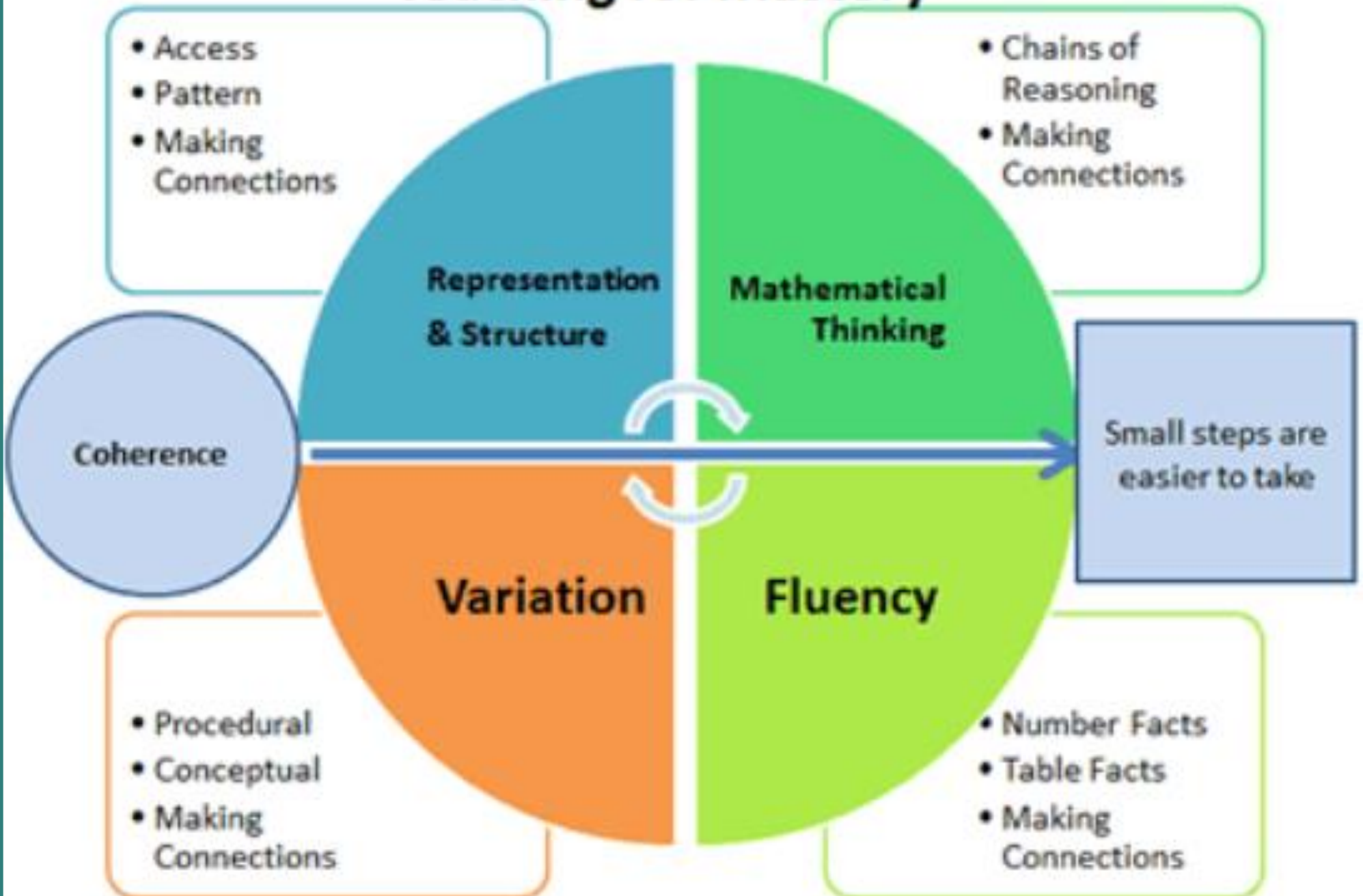


Maths in Key Stage 2



Teaching for Mastery



Aims of Session

Help to familiarise with national expectations for Maths in KS2

Look at mental strategies and approaches to written calculation

Think about how you can help at home

Time for questions and queries

Key Focuses of Curriculum

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages

Key Focuses of Curriculum

Focus on arithmetic

Times Tables

Fractions

Problem solving

Less focus on shape, space
and measure

Mental Arithmetic

Number bonds

Counting forwards and backwards in a variety of steps

Confident recall of addition/subtraction facts

Doubles and halves

Finding 1, 10, 100, 1000 more/less

Place value/partitioning

Times table and division facts

Use known multiplication facts

Square and prime numbers

Multiplying and dividing by 10, 100, 1000

How to help at home

Times Tables

Chanting

Posters/audio

Games

Race against time/competitions

Reward system

Tips and tricks

Useful websites/apps

Mental Maths

Having an awareness of the key mental maths expectations for the end of each year group and supporting your child at home.

How to help at home

Tips and Tricks

Using doubles (using 2 x table to help with 4 x etc)

Each times table has a twin ($5 \times 8 = 8 \times 5$)

5 x table always ends in 0 or 5

When multiplying 6 by an even number, it always

ends in the same digit ($6 \times 2 = 12$ $6 \times 4 = 24$)

9 x table trick with fingers

12 x table is 10 x and add 2

How to help at home

Useful websites and apps

Topmarks

BBC

My Maths

mad4maths

Squeebles

Maths Rockx

Times Table Rock Stars (a resource that children know well)

My Maths

Written calculation

Using the formal (columnar) method for addition and subtraction

Using formal method for short and long multiplication

Using formal method for short and long division

Column Subtraction

$$\begin{array}{r} 4 \\ - 5 6 3 \\ \hline 2 7 8 \\ \hline 2 8 5 \end{array}$$

Short Multiplication

$$\begin{array}{r} 327 \\ \times \quad 4 \\ \hline 1308 \\ \hline \end{array}$$

1 2

Long Multiplication

$$\begin{array}{r} 1234 \\ \times 16 \\ \hline 7404 \\ 12340 \\ \hline 19744 \end{array}$$

The multiplication process is shown with the following steps:

- 1234 multiplied by 6 results in 7404.
- 1234 multiplied by 10 results in 12340.
- The partial products 7404 and 12340 are added to get the final product 19744.

Red annotations above the second row indicate the carry values: a red '1' above the 2, a red '2' above the 3, and a red '2' above the 4.

A blue circle highlights the 0 in the second row, which is the result of 4 multiplied by 6.

Short Division

$$\begin{array}{r} 169 \\ 5 \overline{) 8347} \quad r. 2 \end{array}$$

Long Division

$$\begin{array}{r} 21 \\ 216 \overline{) 4536} \\ \underline{432} \\ 216 \\ \underline{216} \\ 0 \end{array}$$

Questions?