

Maths At Europa

YEAR 2 - YEAR 3
Introduction to Teaching and Learning

This session

The approach to maths at Europa

The KS1 mathematical foundations

What to expect in Year 3

Key ideas explained further through practical application

Mastery in Maths

At Europa we believe children's chances of success are maximised if they develop deep and lasting understanding of mathematical procedures and concepts.

We deliver lessons based around the most recent pedagogy in mathematics - focusing on a Mastery Approach which ensures a concrete - pictorial - abstract exploration of number. This leads to a familiarity and understanding with the base ten system and a basic fluency which should enable success in their mathematical future.

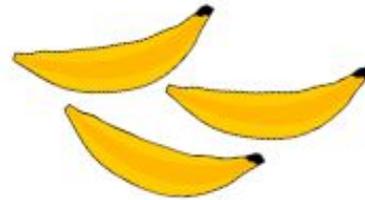
The curriculum gives access to concepts for all, with an acquisition of depth rather than acceleration through content.

It allows for Mathematical talk, Exploration and Problem Solving & Reasoning to take place.

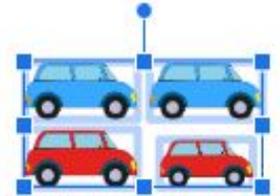
Mastery in Maths / Mastering Number / Bilingual Teaching

As we immerse children in two languages throughout their school life, we incorporate the Maths Mastery theory and practice but also build in teaching and learning styles that mirror national syllabi. This is integrated with English National Curriculum expectations for assessment and of course ensuring that we teach to the children in front of us.

The MN Programme is a new national programme based on research into what is important in early maths education. 'Number sense' includes lots of things; the children may be able to calculate using bigger numbers but we purposefully focus on smaller numbers throughout Year 2 so that the children can develop a deep understanding of numbers to develop that strong number sense. To have a really good foundation to build on, the smaller numbers are so important.



Recognising small numbers of objects and making their own connections



Know different ways to 'make' (compose) a number

The Importance of Mastering 1 - 10

Deeper understanding helps children in their learning later on in school. Children who develop good number sense by the end of Key Stage One are much more confident and capable in maths later on.

Spend time with your children ensuring they know all the ways to compose and decompose (make and split) the numbers 1-10 and then link it to multiples of ten.

How does knowing how numbers are 'made' help children?

I know that 8 is made of 5 and 3 so I will also know...

$$5 + 3 = 8$$

$$50 + 30 = 80$$

$$500 + 300 = 800$$

$$8 - 3 = 5$$

$$80 - 30 = 50$$

$$0.5 + 0.3 = 0.8$$

$$0.8 - 0.3 = 0.5$$



Place Value - Y2 - Y3 Where the place of the digit tells us its value.

During Year 2 the children will have become familiar with tens and ones (or units).

How many tens and how many more:

Practice counting ***up and down*** with how many tens and the ones to emphasise the order in which we write the digits and to make connections with the base 10 system.

To extend this to embed an appreciation of the value of ones, tens and hundreds.

63 ones is equal to 6 tens and 3 ones or 54 tens is equal to 5 hundreds and 4 tens.

Addition & Subtraction Y2 - Y3

Place Value enables a fluency of number when adding and subtracting ones; multiples of ten; hundreds.

Using efficient methods.

CPA Approach.

Formal column addition and subtraction are introduced and used alongside concrete and/or pictorial representations but children's number sense is developed so that they can quickly recognise what $108 + 40$ equals. etc.

This leads on to equivalence and solving $648 + 30 = \underline{\hspace{2cm}} + 78$

Understanding additive structures is essential for quicker mental methods;

If I know that $80 + 60 = 140$ then I know that $60 = 140 - \underline{\hspace{2cm}}$

Which Method - Why

Which Method would you use for:

$127 + 43$

$100 - 7$

$35 + 35$

$61 + 127$

$462 - 160$

1. Fill in the missing numbers.

$$145 = 721 - \square$$

$$\square - 785 = 180$$

Multiplication and Division Y2 - Y3

Should now know 2s, 5s, 10s in multiplication, division, fact families, inverse relationships.

Learning of 3s, 4s and 8s and exploration of 6s, and 9s take place in Y3.

Also two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

It is important for rapid recall of times tables but it is essential to understand what multiplication means - that it is a short way of writing that a number is being added to itself a certain amount of times. Therefore if unsure of a multiple you can “use what you know”

It is imperative that children understand the relationship between division and multiplication. They all see division as harder and this is because it is not practiced, heard and played with in the same way as times tables chanting etc. So we need to look at tables and their corresponding division statements.

Fractions

Numerator - how many of those equal parts we have

Denominator - Equal parts a whole is split in to (division)

Exploration of fractions in year 3 builds on knowing half and quarter. But it really starts to embed children's knowledge of what a fraction is and how it essentially just splitting a whole into EQUAL parts.

Another way of representing division.

Request for home support

Time

Weights and measures

Request for in school support.

Google form