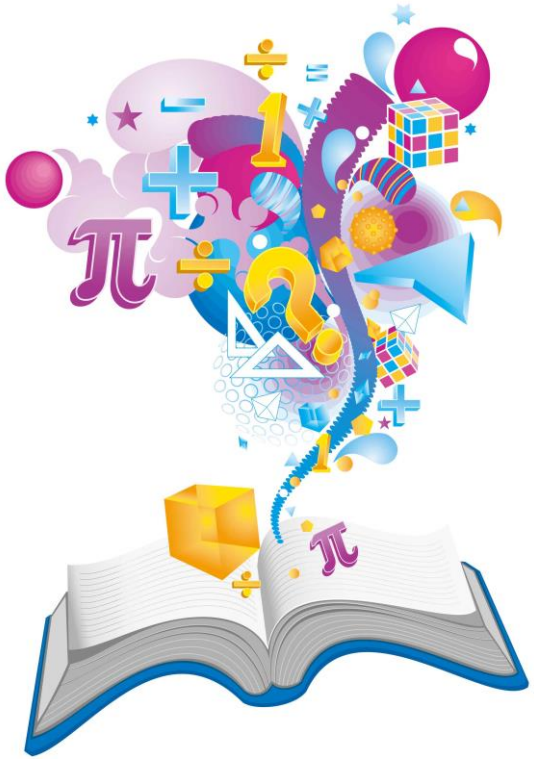
# Math Parent Workshop January 2024



Year 3

# Aim of the session

- To explain what the National Expectations are for your child by the end of Year 3
- To give you ideas and ways to support your child at home.
- To understand how the four operations are taught in Year 3
- To understand how you can support your child with their maths homework

# Addition and Subtraction

- To recognise the place value of each digit in a three-digit number (100s, 10s, and 1s)
- Know and use number bonds to 100 and 1000
- Estimate and use inverse operations to check answers to a calculation
- Solve two-step addition and subtraction problems

# Addition

Formal method using HTO

Carrying over

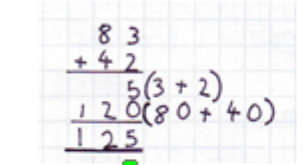
Carries over to the bottom

## Addition

**+ and = signs and missing numbers**

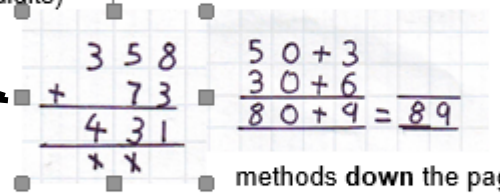
Partition into tens and ones and recombine
53 + 36= 89
(Begin to use numbers where the units exceed 10)

Add a near multiple of 10 to a two-digit number
Continue as in Year 2 but with appropriate numbers, e.g. 35 +19 is the same as 35 + 20 – 1




**Formal written methods introduced**
83 + 24 = 125

Children to work with HTU (3 digits)




Children to begin to use formal written methods **down** the page. Addition sign on the left of the problem. Add numbers with up to 3 digits, using formal written methods of column addition

Add numbers mentally, including: a three-digit number and 1s, a three-digit number and 10s, a three-digit number and 100s.

Estimate answers and use inverse operations to check answers

Solve problems, including missing number problems, using number facts, place value, and more complex addition.

+ and = signs and missing numbers
Continue using a range of equations as in Year 1 and 2 but with appropriate larger numbers.

# Subtraction

Formal method using HTO

Exchanging
Starting from the Ones moving towards the Hundred

## Subtraction

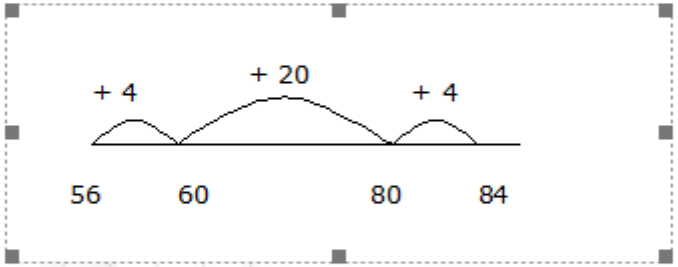
**- = signs and missing numbers**

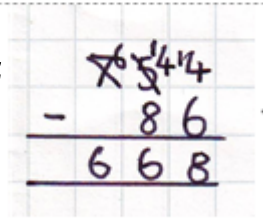
**Continue using a range of equations as in Year and 2 but with appropriate numbers.**

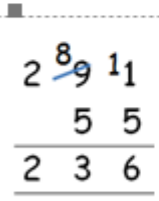
Find a small difference by counting up
**Continue as in Year 2 but with appropriate numbers**
**e.g. 102 – 97 = 5**

Subtract mentally a 'near multiple of 10' to or from a two-digit number
**Continue as in Year 2 but with appropriate numbers**
**e.g. 78 – 49 is the same as 78 – 50 + 1**

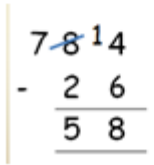
**Pencil and paper procedures**
Complementary addition
84 – 56 = 28




Consolidate number facts and calculation strategies from Year 3




Children to begin to use formal written methods **down** the page Subtraction sign on the left of the problem

# Multiplication

Arrays and repeated addition to continue to understand the link between multiplication and addition

Partitioning method

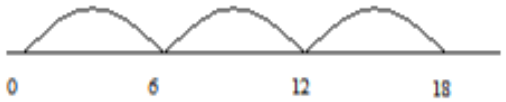
TO x O

Recombining

**x = signs and missing numbers**

Continue using a range of equations as in Year 2 but with appropriate numbers.

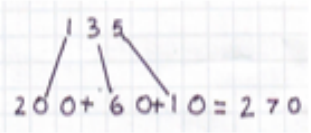
Number lines
6 x 3




Arrays and repeated addition
Continue to understand multiplication as repeated addition and continue to use arrays (as in Year 2).

Doubling multiples of 5 up to 50
35 x 2 = 70

Doubling three digit numbers and multiples of 5, 10 and 100




**Partition**
35 x 2 = 70

30 x 2 = 60
5 x 2 = 10

60
+10
70

# Division

Understand division as sharing and grouping.

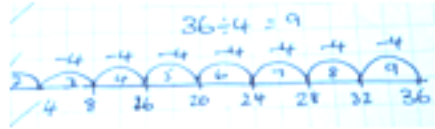
Use informal and written methods and formal method.

Solve problems, including missing number problems, involving division.

**÷ = signs and missing numbers**

Continue using a range of equations as in Year 2 but with appropriate numbers.

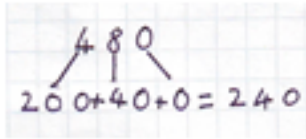
Understand division as sharing and grouping (repeated subtraction) e.g. 36 ÷ 4 = 9 can be modelled as: 36 can be shared between 4




people, how many do they have each?

Grouping and remainders linked to times tables
How many 3's make 16? How many are left over? 16 ÷ 3 = 5 r 1

Halving even numbers up to 100 and multiples of 10
Half of 480 = 240




Children to use informal written methods and formal written methods

Divisibility rules – for the 2, 3, 4, 5, 8. 10- and 100-times tables.

Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers, times one-digit numbers, using mental and progressing to formal written methods.

Solve problems, including missing number problems, involving division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

# How to help at home

Support weekly homework

www.ttrockstars.com
www.nrich.com
www.mathisfun.com