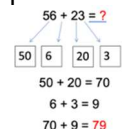


Y3

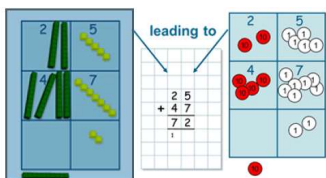
# ADDITION

In Year 3, children should be able to use mental methods to add 1, 10 or 100 from given numbers.

Children continue to use the partitioning method of addition, particularly for mental addition.

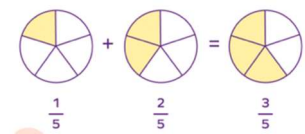


Children are then taught the formal written method of column addition to add numbers up to 3 digits without and with exchange. When exchanging, children are taught to add the ones first and 'carry' numbers underneath the calculation. Concrete and pictorial resources, including Diene's blocks, counters and place value grids are used to support this method.



Children should be able to add two numbers with a different number of digits.

Children build on their understanding of numerators and denominators to add 2 fractions within 1 whole.

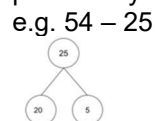


NWLJDS CALCULATIONS POLICY (MAY 2023)

# SUBTRACTION

In Year 3, children should be able to use mental methods to subtract 1, 10 or 100 from given numbers.

Children continue to use the partitioning method of subtraction, particularly for mental subtraction.



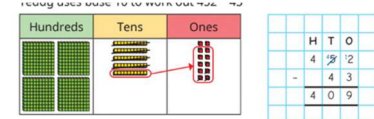
$54 - 20 = 34$   
 $34 - 5 = 29$

Children are then taught the formal written method of column subtraction to subtract numbers up to 3 digits. They first learn to subtract numbers without exchange and then are taught to exchange/regroup from one or more columns.

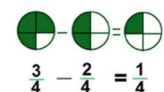
eg:  

$$\begin{array}{r} 8948 \\ -263 \\ \hline 8685 \end{array}$$

Children should be able to subtract a 2 digit number from a 3 digit number. Concrete and pictorial resources, including Diene's blocks, counters and place value grids are used to support this method.



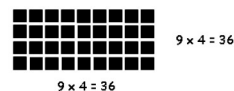
Children build on their understanding of numerators and denominators to subtract 2 fractions within 1.



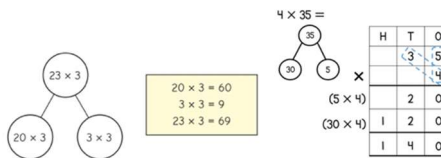
# MULTIPLICATION

By the end of Year 3, children are expected to know the 2, 3, 4, 5, 8 and 10 times tables. They use different strategies to learn the 3, 4 and 8 times table and their related division facts.

Arrays, repeated addition, step counting, number squares, games and weekly times tables tests are used to teach children their times tables.



Children learn how to multiply any number by 10 and use this, alongside partitioning to help with the expanded method when multiplying a 2 digit number by a 1 digit number.



Children then move on to the compact short multiplication method to multiply a 2 digit number by a 1 digit number ensuring they carry underneath the calculation.

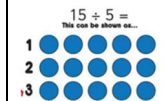
	4	8
x	6	
	24	48
	4	8
	148	

Children use multiplication to solve problems related to scaling e.g. three times as many. Bar models are used to support this.

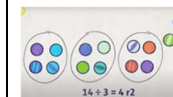
# DIVISION

In Year 3, children are expected to know the inverse of the 2, 3, 4, 5, 8 and 10 times tables.

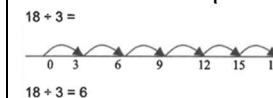
Arrays are used to represent division calculations.



Concrete resources such as counters and objects are used to model division by sharing and grouping. Children use the jottings method to share objects into groups.



Number lines are also used to help children with step counting.



This leads on to the children using the short division method (bus stop method) to divide 2 digit numbers by a 1 digit number. Initially, remainders are not introduced within the calculation.

$$\begin{array}{r} 32 \\ 3 \overline{) 96} \end{array}$$

When children are ready, remainders within calculations are introduced and the notation will need to be made explicit as this may be the first time the children encounter remainders.

e.g.  
 $43 \div 3 = 14 \text{ remainder } 1 \text{ or } 14 \text{ r}1$

