Division - Year Three

Division - Year Three Objectives.

• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables (continue to practise the 2, 5 and 10 multiplication tables)

• Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers divided by one-digit numbers, using mental and progressing to a formal written method

NB Ensure that children are confident with the methods outlined in the previous year guidance before moving on.

Continue to use practical resources, pictures, diagrams, number lines, arrays and the $\div$ sign to record, using multiples they know.

Use and empty number line to count forwards and backwards. (See Y2 guidance)

When children are confident with this, move onto formal layout for division using multiplication facts they know.

$24 \div 8 = 3$ which can also be recorded as $8 \overline{)24}^{\,3}$

'24 divided by 8 equals 3'   ' How many threes are there in 24?'

Division - Year Four Objectives.

- Recall multiplication and division facts for multiplication tables up to 12x12

- Use place value, known and derived facts to divide mentally

- Divide two-digit and three-digit numbers by a one-digit number using formal written layout (not explicitly stated in the programmes of study but implied in the non-statutory guidance)

NB Ensure that children are confident with the methods outlined in the previous year's guidance before moving on.

Children are to continue to write and calculate mathematical statements for division using the multiplication tables they know. E.g. 32 ÷ 8 = 4

As well as continuing to use the formal written method for multiplication facts they should know:

$$
\begin{array}{r}
4 \\
8 \overline{\smash{\big)}\ 3\ 2}
\end{array}
$$

'How any eights are there in 32?'

Continue to use the formal written method, introducing remainders.

25 ÷ 3 = 8 r.1   8 r1

$$
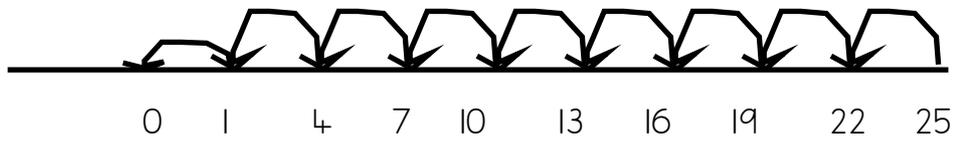3 \overline{\smash{\big)}\ 2\ 5}
$$

NB Remainders are not specifically referred to until Y5 in the National Curriculum.

However, this may be an appropriate point to introduce them using familiar multiplication facts.

This could be modelled using an empty number line, if necessary:

$25 \div 3 = 8 \text{ r}1.$

Number line: 0 1 4 7 10 13 16 19 22 25

Division using partitioning: (Two-digits divided by one-digit)
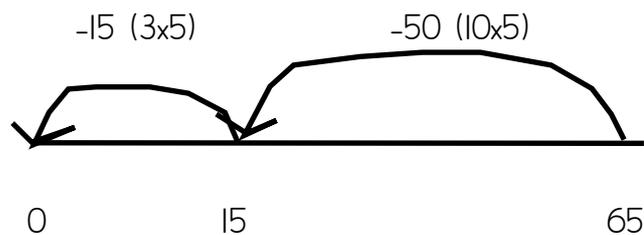
$65 \div 5 = 13$

$65 = 50 + 15$

$50 \div 5 = 10$

$15 \div 5 = 3$

$10 + 3 = 13$

Children will need to have practised partitioning in a variety of ways to be able to use this model.

Continue to use empty number lines, as appropriate using multiples of the divisor:

−15 (3x5)   −50 (10x5)

0   15   65

$98 \div 7 = 14$ (98 is partitioned into 70 and 28)

$70 \div 7 = 10$

$28 \div 7 = 4$

$10 + 4 = 14$ This can be modelled on an empty number line if necessary.

This will lead into a written method using partitioning:

98 ÷ 7 = 14

$$\begin{array}{r} 10 + 4 = 14 \\ \hline 7\,|\,70 + 28 \end{array}$$

We have partitioned 98 into 70 and 28.
7 goes into 70 ten times. 7 goes in to 28 4 times.
10 add 4 equals 14.

This will lead into the formal written method for division:

98 ÷ 7 = 14

$$\begin{array}{r} 1 \quad 4 \\ \hline 7\,|\,9\,_28 \end{array}$$

Continue to practice this throughout the rest of Y4.

If children are really confident with this, move onto three-digit divided by one-digit numbers using the above methods.