DIVISION

Year 6 Divide at least 4-digit numbers by single and 2-digit numbers (including decimals).

Short division (for dividing by a single digit)

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  0 8 1 2 . 1 2 5
8)6 4 9 7 . 0 0 0
```

Children should continue to use short division with remainders. They need to learn how to express an answer as a remainder, a fraction or as a decimal as in in this example.

It is important for children to start from real life problem solving contexts and for them to consider how

Introduce long division by chunking for dividing by 2 digits

Useful list:

1x = 36

10x = 360

100x = 3600

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      27
36 ) 972
   - 720   (20x)
     252
   - 252   (7x)
       0
```

Answer : 27

Find out 'How many 36s are in 972?' by subtracting 'chunks' of 36, until zero is reached (or until there is a remainder).

Teach pupils to write a 'useful list' first at the side that will help them decide what chunks to use.

Introduce the method in a simple way by limiting the choice of chunks to 'Can we use 10 lots? Can use 100 lots?' As children become confident with the process, encourage more efficient chunks to get to the answer more quickly (e.g. 20x, 5x), and expand on their 'useful' lists.

Teachers must consult division progression methods fin previous years in order to determine valid starting points for children in year 6.

Key vocabulary As previously, & common factor

Key Skills for division at Year 6

- Recall and use multiplication and division facts for all numbers to 12 x 12 for more complex calculations
- Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Use short division where appropriate.
- Perform mental calculations, including with mixed operations and large numbers.
- Identify common factors, common multiples and prime numbers.
- Solve problems involving all 4 operations.
- Use estimation to check answers to calculations and determine accuracy, in the context of a problem.
- Use written division methods in cases where the answer has up to two decimal places.
- Solve problems which require answers to be rounded to specified degrees of accuracy.