

Division



Tips for dividing:

- Every time we learn to divide, we should refer to it as the inverse of multiplication
- Therefore, when we learn division facts we should also learn the multiplication. E.g. $3 \times 2 = 6$ $2 \times 3 = 6$ $6 \div 3 = 2$ $6 \div 2 = 3$
- Understand the value of thousands, hundreds, tens and ones.
- Divide by 10, 100, 1000 by using your place value.

Division stages

- Arrays
- Repeated Subtraction
- Chunking
- Bus Stop
- Long Division

Resources I can use to help:

Use buttons, counters, numicon, look for arrays in everyday life, dienes, hundred squares, draw dots (ones) and lines (tens) to represent the numbers, practice reciting the multiples.

Methods your children will learn....

1 Arrays (sharing or grouping)

$12 \div 4$ means 12

grouped into 4's (grouping) or



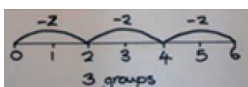
How many 4's are there in 12?

$12 \div 4$ means 12 **shared** between 4 people (1 for you, 1 for you...)



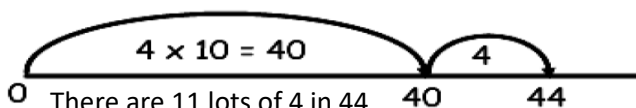
$12 \div 4 = 3$ (each)

2 Repeated subtraction



$$6 - 2 - 2 - 2 = 3 \text{ (groups)}$$

3 Chunking $44 \div 11$ (how many 10's in 40 first (4) that leaves 4)



4 Bus stop

$$\begin{array}{r} 123 \\ 5 \overline{) 615} \end{array}$$

5 Long division

$$\begin{array}{r} 0 \\ 12 \overline{) 2544} \end{array}$$

Step one – exchange 2 thousand for 20 hundreds so we now have 25 hundreds.

$$\begin{array}{r} 02 \\ 12 \overline{) 2544} \\ \underline{24} \\ 1 \end{array}$$

Step two – How many groups of 12 can I make with 25 hundreds? The 24 shows the hundreds we have grouped. The one is how many hundreds we have left.

$$\begin{array}{r} 021 \\ 12 \overline{) 2544} \\ \underline{24} \\ 14 \\ \underline{12} \\ 2 \end{array}$$

Exchange the one hundred for 10 tens. How many groups of 12 can I make with 14 tens? The 14 shows how many tens I have, the 12 is how many I grouped and the 2 is how many tens I have left.

$$\begin{array}{r} 0212 \\ 12 \overline{) 2544} \\ \underline{24} \\ 14 \\ \underline{12} \\ 24 \\ \underline{24} \\ 0 \end{array}$$

Exchange the 2 tens for 20 ones. The 24 is how many ones I have grouped and the 0 is what I have left.

