

Once the children are comfortable with the idea of repeated addition and subtraction as methods used for division, and the link that division has to times tables, they should be ready to move on to a more formal method of calculation – the bus stop method.

The bus stop method should be introduced with two digit numbers that are in times tables that the children are familiar with, so as they get used to using the method. Once they have a degree of comfort with the method they should be progressing to carrying numbers and dividing larger numbers. The curriculum dictates that children should be dividing up to 4 digits by 1 digit, using a formal method, by the time they reach Year 5.

Using the bus stop method, children put the number that is being divided (the dividend) ‘inside’ the bus stop, and the number it is divided by (the divisor) outside, to the left. The children will then divide each digit in the dividend by the divisor, starting with the nearest to the line. They will write their answer above each digit they divide. If the divisor doesn’t go perfectly into a digit then the remaining numbers are carried over and written, in small font, next to the next digit.

$$\begin{array}{r} 151 \\ 5 \overline{) 755} \\ \underline{5} \\ 25 \\ \underline{25} \\ 0 \end{array}$$

Five goes into seven one time, with 2 left over. Therefore, we write 1 above the 7 and put the remaining 2 next to the next digit along, in this case a 5, to make 25. We then divide the remaining digit(s) by the divisor, in this case $5 \div 5 = 1$.

Children often have difficulty if the first digit of the dividend is smaller than the divisor. In this case, they should put a 0 above the digit and carry the entire number over to the next digit.

$$\begin{array}{r} 033 \\ 5 \overline{) 165} \\ \underline{0} \\ 16 \\ \underline{15} \\ 15 \\ \underline{15} \\ 0 \end{array}$$

If children have difficulty with remainders, they are encouraged to continue using arrays / jottings. Using the example of $755 \div 5$, the children would be encouraged to draw 7 dots, circle 5 of them and count how many are left.

If necessary, arrays / jottings can also be made for the larger division calculations, in the example above the children could draw 16 dots, splitting them into groups of 3 and calculating how many were left.

This method can be used to convert remainders into decimals. Children will be taught to simply add .0 to the end of a calculation and carry their remainder into that zero to make a new number, then dividing it by the divisor to give a decimal.

$$\begin{array}{r} 09.2 \\ 5 \overline{) 46.0} \\ \underline{4} \\ 6 \\ \underline{5} \\ 10 \\ \underline{10} \\ 0 \end{array}$$

What would have been remainder 1 has been added to a .0 to be divided further