

Stage 4 – Multiplication

Short Method

Children should move from expanded method to short method. This should start with questions involving 2/3 digits by 1 digit.

Step 1: Start with the ones column. $7 \times 5 = 35$. We put the 5 ones in the ones column and regroup the 3 tens moving them into the tens column.

Step 2: Move onto the tens column. Don't forget to add the regrouped tens to your answer.

	H	T	O
		3	5
x			7
	2	4	5
		3	

The next step with short method is multiplying by more than a single digit. This can get quite confusing because there can be a lot going on. Again if children are not comfortable with this method, they can revert to the expanded method.

Step 1: Start with the ones. If you need to regroup, keep it in the same row.

Th	H	T	O
		2	6
	x	1	9
	1	53	4
	2	6	0

Step 2: Move onto the tens column. Because you are now in the tens column you need to add a place holder in the ones column. This can be added using a different colour initially to try to ensure children remember as this is commonly forgotten. Try to talk about the use of the place holder here and ask children to explain the importance of it – the more they

understand why it is there, the less likely it is that they will forget it.

Step 3: Add together the two numbers to make a total.

Th	H	T	O
		2	6
	x	1	9
	1	53	4

Th	H	T	O
		2	6
	x	1	9
	1	53	4
+	2	6	0
	3	9	4

Multiplying Decimals

Children should continue to use the same approach when multiplying decimals. They should use place value headers. If children are finding multiplying decimals difficult, it is always a good decision to revert to expanded method.

T	O	t	
	5	6	
1	3		
	1	8	(3 x 0.6)
1	5		(3 x 5)
	6		(10 x 0.6)
5	0		(10 x 5)
7	2	8	
1			

$$5.6 \times 13 =$$

Step 1: Lay out the question vertically using column headers.

Step 2: Multiply the column with the smallest value. Make sure you multiply all the digits.

Step 3: Continue moving through the columns multiplying all the digits necessary.

Step 4: Add all the values to find the total.

T	O	t	
	5	6	
1	3		
1	16	8	
5	6		
7	2	8	
1			

Vocabulary

Number
 Numeral
 Multiplication
 Multiplied by
 Multiple
 Doubling
 Array
 Patterns
 Lots of
 Groups of
 Row
 Column
 Multiplication fact
 Multiplication table
 Groups of
 Times
 Repeated addition
 Factor
 Product
 Inverse
 Squared
 Cubed
 Place holder
 Multiple
 Prime Number

