24 x 6 =
 	
| X | 20 | 4
6 | 120 | 24
 	
H T O
  2 4
x   6
  2 4 (4 x6)
1 2 0 (20 x6)
1 4 4
	Once secure with the grid method of multiplication, children will be introduced to the expanded formal method of multiplication, initially alongside the grid.

24 x 6 =
 	
342 x 7 =
	H T O
	  2 4
	x 6
	  2
	1 4 4
	
	Th H T O
	   3 4 2
	x 7
	   2 1
	  2 3 9 4
		The children will eventually move on to the compact method for multiplication (once secure with the expanded method).

35 x 36
 	
Expanded
	H T O
	  3 5
	x 2 6
	  3 0 (5 x6)
	1 8 0 (30 x6)
	1 0 0 (5 x20)
	6 0 0 (30 x20)
	9 1 0
	
	H T O
	  3 5
	x 2 6 **Compact**
	  3
	2 1 0
	+ 7 0 0
	9 1 0
		The expanded method will also be used for long multiplication, once children are secure with the grid method.
		
		Children will progress to the compact method for long multiplication when secure with the expanded method.

Helping your child at home

X

Multiplication

QUEENSMEAD PRIMARY ACADEMY
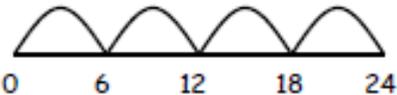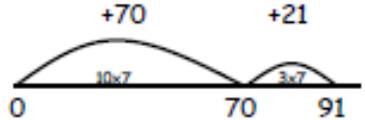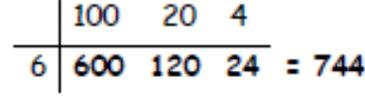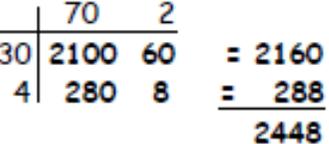
MULTIPLICATION

Children are taught to understand multiplication as repeated addition and scaling. It can also describe an array.

2x4= Each child has two eyes. How many eyes do four children have? 2 + 2 + 2 + 2	Again a picture can be useful.
5x3= There are 5 cakes in a pack. How many cakes in 3 packs? ●●●●● ●●●●● ●●●●● 5 + 5 + 5	Dots or tally marks are often drawn in groups. This shows 3 groups of 5.
4x3= A chew costs 4p. How much do 3 chews cost? ●●●● ●●● ●●●● ●●● ●●●● ●●● ●●●● or	Drawing an array (3 rows of 4 or 3 columns of 4) gives children an image of the answer. It also helps develop the understanding that 4x3 is the same as 3x4.
6x4= There are 4 cats. Each cat has 6 kittens. How many kittens are there altogether? 0 6 12 18 24	Children could count on in equal steps, recording each jump on an empty number line. This shows 4 jumps of 6.
13x7= There are 13 biscuits in a packet. How many biscuits in 7 packets? +70 +21 10x7 3x7 0 70 91	When numbers get bigger, it is inefficient to do lots of small jumps. Split 13 into parts (10 and 3). This gives you two jumps (10x7 and 3x7).
6x124= 124 books were sold. Each book cost £6. How much money was taken? 100 20 4 6 | 600 120 24 = 744	This is called the grid method. 124 is split into parts (100, 20 and 4) and each of these is multiplied by 6. The three answers are then added together.

72x34=
A cat is 72cm long. A tiger is 34 times longer. How long is the tiger?
 	
    70   2
30 | 2100 60   = 2160
4 | 280   8   = 288
                   2448
	This method also works for 'long multiplication'. Again split up the numbers and multiply each part. Add across the rows, then add those two answers together.