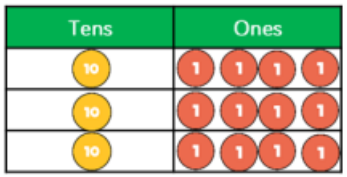
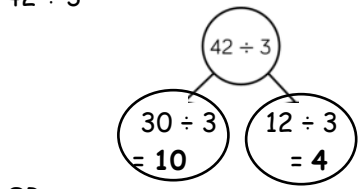
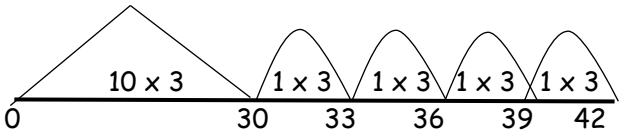
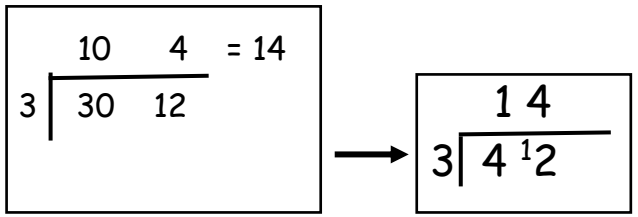
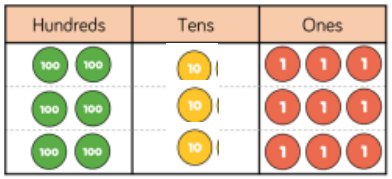
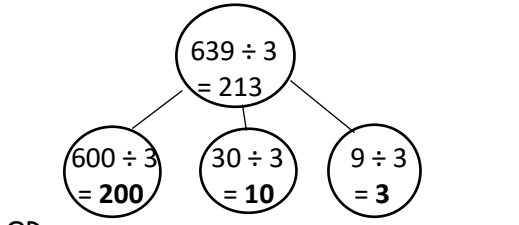
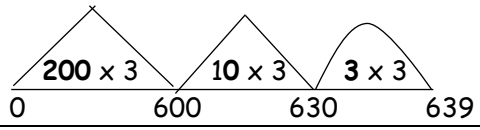
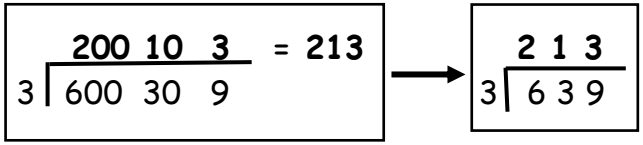
YEAR 4	Division	
Vocabulary: divide, divided by, divisible by, divided into, share between, groups of, factor, factor pair, multiple, times as (big, long, wide …etc), for every, quotient, equals, remainder, quotient, divisor, inverse		
Concrete	**Pictorial**	**Abstract**
Divide a 2 digit number by a 1 digit number Start with simple partitioning (36 ÷ 3) then: 42 ÷ 3  = 14 1 ten has been exchanged for 10 ones. **Extend to include remainders.**	**Divide a 2 digit number by a 1 digit number** Start with simple partitioning (36 ÷ 3) then: 42 ÷ 3  OR  **10 + 4 = 14** (moving on to jumps of 4 x 3)	**Divide a 2 digit number by a 1 digit number** Start with simple partitioning (36 ÷ 3) then: 42 ÷ 3 
Divide a 3 digit number by a 1 digit number (no exchanging) 639 ÷ 3  	**Divide a 3 digit number by a 1 digit number (no exchanging)** 639 ÷ 3  OR  	**Divide a 3 digit number by a 1 digit number (no exchanging)** 639 ÷ 3 

Mental Methods

Number facts:

Count on and back in multiples of 6, 7, 9, 25 and 1000.

0 7 14 21 28 …

300 275 250 225 200 …

Learn the multiplication facts to 12 x 12 and use place value to derive related facts.

6 x 7 = 42 70 x 6 = 420

42 ÷ 6 = 7 420 ÷ 6 = 70

How many sixes in 54?

Divide 63 by 7

350 divided by 5

108 ÷ 12, what is the quotient?

Inverse:

Write the related number sentences

6 x 7 = 42 7 x 6 = 42

42 ÷ 7 = 6 42 ÷ 6 = 7

Doubling and halving

Derive corresponding halves of doubles of multiples of 50 to 1000 and multiples of 1000.

Half of 150 is __ 700 ÷ 2 = __ 6000 ÷ 2 = __

600 ÷ 4 (halve & halve again)

Half of 600 is 300, half of 300 is **150**

112 ÷ 8 (halve, halve and halve again)

Half of 112 = 56, half of 56 = 28, half of 28 = **14**

Using known facts and place value:

If 6 ÷ 2 = 3

Then:

60 ÷ 20 = 3, 600 ÷ 3 = 200 etc.

Using factors

Recognise and use factor pairs

List the factor pairs of 32

500 ÷ 20 (Divide 500 by 10 then divide by 2)

90 ÷ 6 (Divide 90 by 3 then divide by 2)

Partitioning:

Continue to partition 2 and 3 digit numbers in different ways:

762 = 700 + 60 + 2

762 = 600 + 120 + 42 etc

Without crossing the tens boundary:

78 ÷ 6 = **13**

Partition in to multiples of the divisor

60 ÷ 6 = **10;** 18 ÷ 6 = **3**

10 + 3 = 13

Crossing the tens boundary:

185 ÷ 5 = **37**

150 ÷ 5 = **30**; 35 ÷ 5 = **7**

30 + 7 = 37

With remainders: 187 ÷ 5

(using jottings – see above)