Year 4 Multiplication and Division (including fractions)

Recall of facts

Learn and recall multiplication and division facts up to 12 x 12 and use place value to derive related facts

6x7 = 42 70x6 = 420 42÷6 = 7

420÷6 = 7 Divide 63 by 7

350 divided by 5

How many sixes in 54?

108÷12 – what is the quotient?

Continue to use the inverse relationship between x and ÷

8 x 7 = 56 56 = 7 x 8

56 ÷ 8 = 7 8 = 56 ÷ 7

Relate division and fractions

1/8 of 56 is the same as 56÷8

3/7 of 56 is the same as (56÷7) x 3

56						
1/7	1/7	1/7	1/7	1/7	1/7	1/7
8	8	8	8	8	8	8

Multiplication and division can be represented in different ways…

These structures show the relationship between multiplication and division.

38 x 4

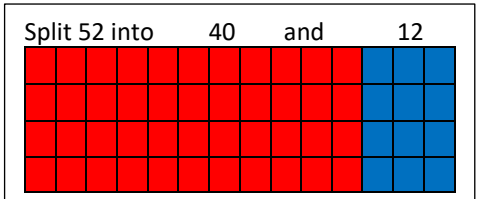
x	30			8
	10x4	10x4	10x4	
4	**********	**********	**********	********
	**********	**********	**********	********
	**********	**********	**********	********
	**********	**********	**********	********

X	30	8
4	120	32

3 8
x 4
3 2 (8x4)
1 2 0 (30x4)
1 5 2

52 ÷ 4

Split 52 into 40 and 12



4 | 40 | 12 | 10 x 4 | 3 x 4

10 3 = 13
4 | 40 12

1 3
4 | 5 1 2

Always Sometimes Never?

Numbers in the nine times table have digits that add up to 9

Prove it

Multiples of 6 are also multiples of 2 and of 3

Partition numbers for division by using factors

161 ÷ 7 - partition 159 into 140 and 21

Use times tables knowledge to know that 140 is divisible by 7 – 20 x 7

21 is divisible by 7 – 3 x 7

Calculating with measures

6 pens cost £2.40 How much does each pen cost?

£2.40					
?	?	?	?	?	?

Using knowledge of times tables, I know that 240 ÷ 6 = 40 linked to 24 ÷ 6

Therefore £2.40 ÷ 6 = 40p for each pen.

Use the inverse operation to check 40p x 6 = £2.40

How many rectangles can you draw with an area of 36cm²?

Mark is doing a sponsored silence. He says, "If I am silent for five hours at 10p per minute I will raise 50 pounds." Is he correct? Prove it

Use a variety of words

multiple, multiply, array, tables, times, product, twice, double, repeated addition, factor

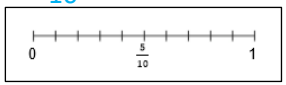
divide, divisible by, divided into, quotient, divisor, remainder

Equivalence

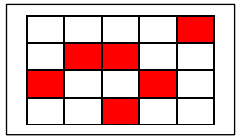
3/10 of a number. Divide the whole number into 10 equal parts then x by 3

3/10 written as a decimal – 0.3

Mark 3/10 on a number line



3/10 of a shape



Fractions and decimals

Counting in tenths 1/10 0.1 and hundredths 1/100 0.01

Scaling – linking x and ÷

For every flower, there are 6 leaves

Flower	1	2	3	?.....	?.....
Leaves	6	?	?	42	60