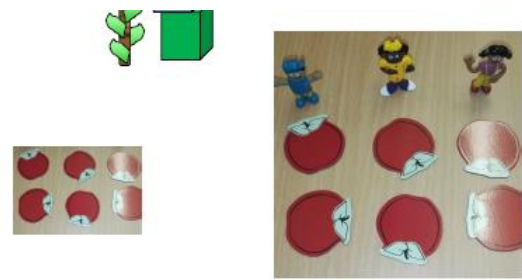| Year group	Multiplication and Division Objective			Resources
Year R		**ELG** Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.	3 friends wanted to share the last 6 apples. To make it fair they need the same amount each.	Objects Bead strings Numicon Drawing
Year 1	• count in multiples of twos, fives and tens	**Multiplication and Division** Counting in steps of equal sizes is based on the big idea of 'unitising' ; treating a group of, say, five objects as one unit of five. Working with arrays helps pupils to become aware of the commutative property of multiplication, that 2 × 5 is equivalent to 5 × 2.	3 pairs	Objects Numicon Drawing Number sentences Bar model Jottings.

5 chocolates will fit in a box. How many boxes will I need for 15 chocolates?

Year 1
Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

5 frogs on each lily pad
5 x 3 = 15

Repeated Addition

☐ frogs X 3 lilly pads = 15

There are 15 frogs. There are the same amount on each Lilly pad. If there are 3 Lilly pads, how many are sat on each one?

| Year 2 | • count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward
• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers | **Multiplication and Division**
It is important that pupils both commit multiplication facts to memory and also develop an understanding of conceptual relationships. This will aid them in using known facts to work out unknown facts and in solving problems.
Pupils should look for and recognise patterns within tables and connections between them (e.g. x2 is doubling divide by 2 is halving, 5× is half of 10×). | Year 2 Multiplication progression of strategies:

Which pictures show equal groups?
Which pictures show unequal groups? | Objects
Numicon
Number track
Base 10
100 square

Drawing
Number sentences using x and ÷
Arrays
Sharing |

Pupils should recognise multiplication and division as inverse operations and use this knowledge to solve problems. They should also recognise division as both grouping and sharing. Children should begin to use their multiplication facts to help them solve division i.e. 3 x5 = 15 so 15 divided by 5 =3 The recognition of pattern in multiplication helps pupils commit facts to memory, for example doubling twice is the same as multiplying by four, or halving a multiple of ten gives you the related multiple of five.

☐ + ☐ + ☐ + ☐ =

+6 +6 +6
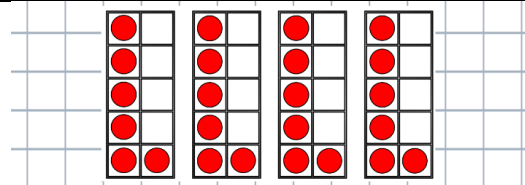
Complete the sentences to describe the equal groups.
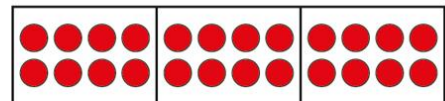
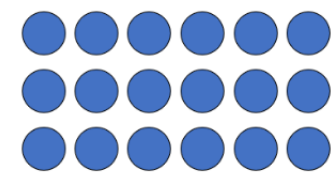There are _____ equal groups with _____ in each group.

_____ + _____ + _____ = 24

_____ × _____ = 24

_____ x _____

_____ x _____

_____ x _____

_____ x _____

☐ + ☐ + ☐ = ☐

☐ × ☐ = ☐

Share 12 into 3 groups. How many are in each group?
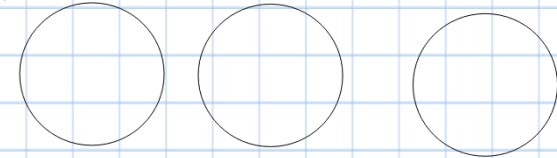
Group these counters into groups of 5.
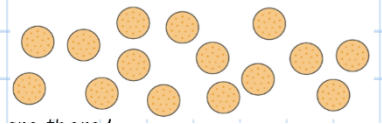
Make equal groups of 2 from 12.

$$\underline{} \div \underline{} = \underline{}$$
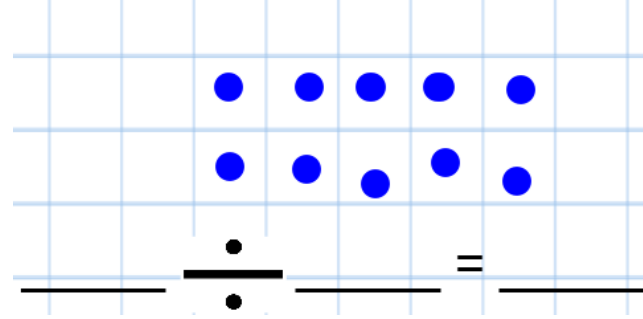
3 people can fit in a carriage. How many carriages?

2 carriages will be needed.

$6 \div 3 = 2$

ITPs National Numeracy Strategy

$4 \times 3 = 3 \times 4$

How many pies?

4 Cheerios in one bowl, how many in 5 bowls?

$4 + 4 + 4 + 4 + 4 = 20$

$4 \times 5 = 20$

If 5 friends wanted to share 20 Cheerios, how many would they each have? 20 Cheerios ÷ 5 people = 4 Cheerios each

What if I had 16 chocolates...how many boxes would I need then?

Extra box= 4 boxes!