



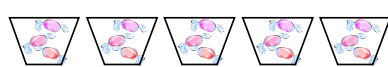
Pupils should be taught to solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

They practise counting in twos, fives and tens from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions.

Count in twos; fives; tens. Use contexts, objects and visual images to make the link to repeated addition.

e.g. Counting in 2s counting socks, eyes,

- Understand multiplication as repeated addition.
- Use real life contexts and use of practical equipment multiply by repeated addition



- Represent multiplication using repeated addition of Numicon
- Represent multiplication as arrays



Looking at columns

2 + 2 + 2

3 groups of 2

Looking at rows

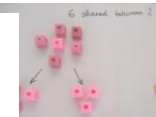
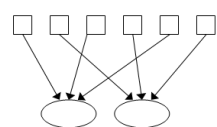
3 + 3

2 groups of 3

Understand division as sharing

Sharing objects into equal groups.

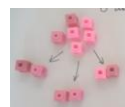
Sharing – 6 sweets are shared between 2 people. How many do they have each?



Practical activities involving sharing, distributing cards when playing a game, putting objects onto plates, into cups, hoops etc

Understand division as grouping

Group objects into equal groups



Mental Recall of facts and Calculation strategies

Begin to count in 2s, 5s and 10s

Begin to say what three 5s are by counting in 5s or what four 2s are by counting in 2s, etc.

Double numbers to 10

Begin to count in 2s, 5s and 10s

Find half of even numbers to 12

Pupils should be taught to:

- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Pupils use a variety of language to describe multiplication and division.

Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.

Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, 40 ÷ 2 = 20, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, 4 x 5 = 20 and 20 ÷ 5 = 4).

- Represent multiplication as repeated addition along a number line.
- Represent multiplication using repeated addition of Numicon
- Represent multiplication using arrays.



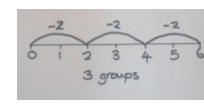
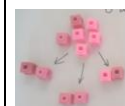
- Double two-digit numbers

Understand division as sharing

Understand division as grouping

Develop an understanding of division as grouping using practical grouping arrays and number lines showing repeated groups (repeated subtraction of sets of the same size)

6 ÷ 2 =



Solve problems involving sharing and grouping
12 children get into teams of 4 to play a game.
How many teams are there?



Use known multiplication facts to derive related division facts for the 2, 5 and 10 times tables.

Mental Recall of facts and Calculation strategies

Count in 2s, 5s and 10s

Begin to count in 3s.

Learn the 2x, 5x and 10x tables.

Double numbers up to 20

Use known facts to double and halve multiples of 10 to 100 .

Find division facts by using fingers to say where a given number is in the 2s, 5s or 10s count. (E.g. 8 is the fourth number when I count in twos.)

Halve numbers to 20