



Knowledge Organiser



Number

Year 4

Multiplication & Division

In Year 4, we continue to use and build on our knowledge of multiplication and division facts. Knowing these facts will help us with lots of maths in the future, including fractions, percentages and ratio in Year 6! We are learning how to use a formal written method for multiplication. This will help us in the future to multiply amounts of money.

Builds from Year 3:

Multiplication and division facts for the 3, 4 and 8 multiplication tables.
Grid method for multiplication.
Dividing 2-digit numbers.
Calculate mathematical statements for multiplication and division.

This year:

Multiplication and division facts for multiplication tables up to 12×12 .
Mental multiplication and division.
Factor pairs.
Formal written methods for multiplication.

Leads to Year 5:

Mental multiplication and division strategies with decimals.
Multiples factors and prime numbers.
Square and cube numbers.
Formal written methods for division and long multiplication.
Interpret remainders appropriately.

Multiplication Methods

Th	H	T	O
	5	4	3
x			4
			1 2
		1 6	0
2	0	0	0
2	1	7	2

(4×3)
 (4×40)
 (4×500)

Th	H	T	O
	5	4	3
x			4
2	1	7	2
		1	1

Factor Pairs

Factor pairs are a pair of numbers multiplied together to form another number called their **product**.

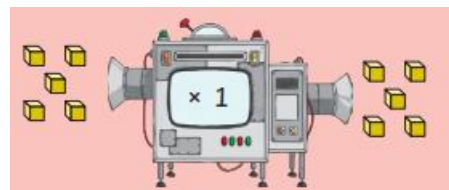
Factors of 48

1, 2, 3, 4, 6, 8,
12, 16, 24, 48

$$\begin{array}{l} 1 \times 48 \\ 2 \times 24 \\ 3 \times 16 \\ 4 \times 12 \\ 6 \times 8 \end{array}$$

x and ÷ by 0 and 1

$$5 \times 1 = 5$$



$$5 \div 1 = 5$$

Multiplying any number by zero will give you an answer of zero.

$$5 \times 0 = 0$$

Key Vocabulary

multiply groups of lots of times divide share remainder factor factor pair multiple product
column method commutativity