

Year 4 Flamingos

Maths

Autumn 2

Area, Multiplication and Division

Multiplication Fluency

By the end of year 4, all pupils should be able to recall all multiplication facts up to 12×12 fluently with a 6 second re-call. Many other areas of mathematics will be easier once this knowledge is secure.

Division facts are the inverse of multiplication;

e.g. $3 \times 4 = 12$, $4 \times 3 = 12$, $12 \div 3 = 4$, $12 \div 4 = 3$

Use timestables.co.uk or Mathsframe.co.uk to practise regularly.

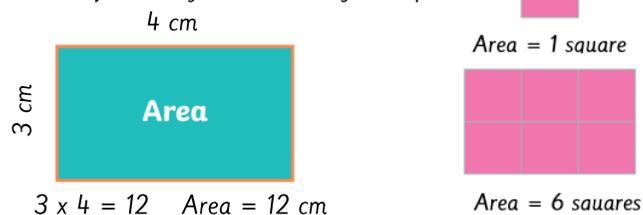
x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Key Vocabulary	Definition
2D shapes	A flat shape, such as a circle, square or triangle
array	A set of objects or numbers arranged in order, often in rows and columns.
area	The total space taken up by a 2D shape.
compare	Seeing which number is greater than the other one.
division	To share a number into equal groups. e.g. $6 \div 2 = 3$
inverse	The opposite action. Division is the inverse of multiplication.
greater than	The largest number e.g. $10 > 8$
less than	The smallest number e.g. $8 < 10$
multiple	A number that can be divided by another number a certain number of times without a remainder.
multiplication	To add equal groups together to calculate an answer e.g. $2 \times 3 = 6$
remainder	The amount left over when a number cannot be exactly divided by another number.
repeated addition	To add the same number over and over again to solve a multiplication problem. e.g. $2 + 2 + 2 = 6$
repeated subtraction	Is subtracting the same number from a larger number down to zero. e.g. $6 - 2 - 2 - 2 = 0$

Area

Area: The term used to define the amount of space taken up by a 2D shape or surface. We measure area in square units: cm^2 or m^2 . Area is calculated by multiplying the length of a shape by its width.

We can count squares to find the area of a shape.



Ways to Calculate Multiplication and Division

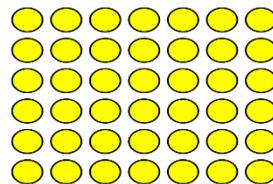
Arrays

$$6 \times 7 = 42$$

$$7 \times 6 = 42$$

$$42 \div 6 = 7$$

$$42 \div 7 = 6$$



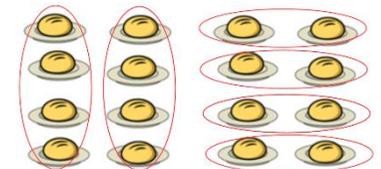
Repeated Addition



$$3 + 3 + 3 + 3 + 3 + 3 = 18$$

$$6 \times 3 = 18 \quad 3 \times 6 = 18$$

Grouping and Sharing



$$8 \div 2 = 4$$

$$8 \div 4 = 2$$