

St Anne's Primary School Maths Progression: Multiplication and Division



Which one doesn't belong?



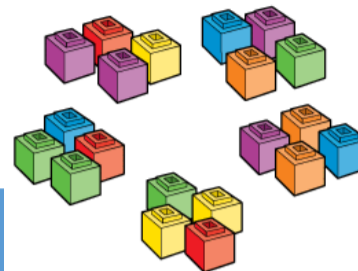
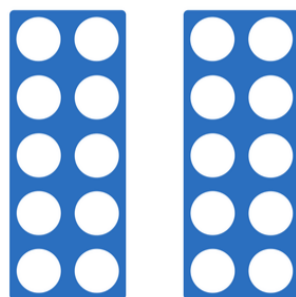
Reception

Nursery

- 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.

- Recognise evens and odd numbers.
- Recall double facts up to 5.
- Share quantities evenly to 10.

- Use mathematical language.



YEAR 1

- Recall and use multiplication and division facts for 2, 5 and 10 times tables.

- Calculate and write mathematical statements using \times , \div and $=$

- Show that ' \times ' is commutative and ' \div ' is not.

- Use facts to answer and solve simple problems.

		24	\times 15
	X	10	5
	20		
	4		

Times	Multiply	Multiple
Lots of	Of	Product
Area	\times	By

Divide	Share	Split
Group	\div	How many each
Goes into		

Vocabulary

Key
 Number Bonds
 Mental Calculation
 Written Methods
 Inverse Operations,
 Estimating and
 Checking Answers
 Problem Solving

YEAR 2

Times Tables

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

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

YEAR 3

- Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
- Divide numbers up to 3 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.

\times	30	5
20	600	100
6	180	30

$$600 + 100 = 700$$

$$180 + 30 = 210$$

$$700 + 210 = 910$$

- Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

- Derive doubles and halves and know they are inverse operations

- Recall multiplication and division facts for multiplication tables up to 12×12 .

YEAR 4

- Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, division (including interpreting remainders), integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

$$1) \quad 384 \div 16$$

$$\begin{array}{r} 16 \overline{) 384} \\ -160 \quad (10 \times 16) \\ \hline 224 \\ -224 \quad (10 \times 16) \\ \hline 0 \end{array}$$

$$\begin{array}{r} 734 \\ \times 74 \\ \hline \end{array}$$

- Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).

- Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

- Recognise and use square (2) and cube (3) numbers, and notation.
- Multiply and divide numbers mentally drawing upon known facts.

YEAR 5

- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.

- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

- Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.

YEAR 6

- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
- Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, & interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.