

Year 5 – Maths Subject Knowledge

Place Value

Counting
Read, write and represent numbers beyond 10 000 000

M	Hth	Tth	Th	H	T	O	1/10	1/100	1/1000
1,000,000	100,000	10,000	1,000	100	10	1	0.01	0.01	0.001

Rounding

Nearest 10

20	21	22	23	24	25	26	27	28	29	30
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Nearest 100

700	← 749	750	→ 800
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Nearest 1,000

7000	← 7499	7500	→ 8000
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Nearest 10,000

20,000	← 24,999	25,000	→ 30,000
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Nearest 100,000

200,000	← 249,999	250,000	→ 300,000
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Roman Numerals

1	I	100	C
5	V	500	D
10	X	1000	M
50	L		

Multiplication and Division

Methods

$$\begin{array}{r}
 124 \\
 \times 26 \\
 \hline
 744 \\
 2480 \\
 \hline
 3224
 \end{array}$$

Answer: 3224

$$\begin{array}{r}
 123 \\
 5 \overline{) 615} \\
 \underline{5} \\
 11 \\
 \underline{10} \\
 15 \\
 \underline{15} \\
 0
 \end{array}$$

Term	Definition	Example
Factor	A number that divides exactly into another number	Factors of 12 = 1, 2, 3, 4, 6, 12
Multiple	A number in another number's time table	Multiples of 6 = 6, 12, 18, 24, 30
Prime number	A number with only 2 factors: 1 and itself	2, 3, 5, 7, 11, 13, 17, 19.....
Square number	The result when a number has been multiplied by itself	25 (5 ² = 5 x 5)
Cube number	The result when a number has been multiplied by itself twice	125 (5 ³ = 5 x 5 x 5)

Addition and Subtraction

$$\begin{array}{r}
 243 \\
 +368 \\
 \hline
 611
 \end{array}$$

$$\begin{array}{r}
 234 \\
 - 88 \\
 \hline
 146
 \end{array}$$

Fractions, decimals and percentages


Numerator – How many parts you have
 Denominator – How many parts in total
 Mixed number – An integer and a fraction
 Improper fraction – Numerator is greater than the denominator

1/100	0.01	1%
1/10	0.1	10%
1/5	0.2	20%
1/2	0.5	50%
3/4	0.75	75%
1	1	100%

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


Measurement and Geometry

Full turn = 360° Half turn = 180°
 Right angle = 90° Acute angle = < 90°
 Obtuse angle = > 90° Reflex angle = > 180°
 Angles on a straight line = 180°
 Angles inside a triangle = 180°
 Angles inside a quadrilateral = 360°




Perimeter
Area

Co-ordinates
 Read co-ordinates along the x axis (horizontal) first, then the y axis (vertical).
 E.g. (5, 2) right 5, up 2.



Parallel lines



Perpendicular lines