

Number –Place Value

Read, Write and Order:

- up to 10,000,000 and beyond (including 3dp).
- Round any number up to 10 million to 10,100, 1000, 10,000, 100,000, 1,000,000 (including 3dp).
- Roman Numerals up to 1000 (M) and recognise years.

Counting on and back:

- Forwards/backwards in any given steps up to 10,000,000.

Negative Numbers:

- Interpret negative numbers in context, count forwards and backwards with positive and negative numbers through 0.

Measurement

Length, Weight & Capacity:

- Add/subtract/covert between - mm, cm, m, km, kg, ml, l.
- Convert between Miles and Kilometers.

Area, Perimeter and Volume:

- Find the area and perimeter of compound shapes, triangles and parallelograms.
- Find the volume of cubes/cuboids.

Time:

- Tell and write the time from analogue and digital clocks.
- Convert between analogue and digital (including 24 hour).

Money:

- Use the four operations to solve problems using money (convert between pounds and pence).

Fractions, Decimals and Percentages

Fractions:

- Add/subtract/order/compare with different denominators.
- Find Equivalent fractions and Simplify.
- Convert Mixed Fractions to Improper and vice versa.
- Multiply fractions by fractions and whole numbers.
- Divide Fractions by fractions and whole numbers.

Percentages:

- Find any % (10%, 5%, 1% and multiples) of an amount.

Decimals:

- Read, write, order and compare decimals up to 3dp.
- Round to 3dp and to the nearest whole number.

$$\frac{1}{3} + \frac{1}{5}$$

Four Operations (see next page for examples)

Addition:

- Add numbers with any number of digits (column method).
- Practise mental strategies for adding large numbers.

Subtraction:

- Subtract numbers with any number of digits (Column method).
- Practise mental strategies for subtracting large numbers.

Multiplication:

- Up to 4 digit x 2 digit (using short/long formal method)
- Multiply and divide by 10,100 and 1000.

Division:

- Up to 4 digit ÷ 1/2 digit formal short/long method-Bus stop.
- Express remainders in number, fraction or decimal form.

Times Tables+ BIDMAS

- TIMES TABLES TO 12 x 12. Understand order of operations.
- Multiples, Factors, Prime, Squared and Cubed numbers**
- Understand all terms and apply to problem solving.

Shape - Properties of Shape

Shape 2D/3D:

- Draw 2D shapes using given dimensions and angles.
- Recognise, describe and build simple 3D shapes (nets).

Angles:

- Identify all types of angles and find unknown angles in any triangle, quadrilateral or regular polygon.
- Find angles where they meet at a point, straight line or vertically opposite.

Circle:

- Name the parts of a circle and understand Diameter is twice the Radius.

Shape – Position and Direction

Co-ordinates:

- All four quadrants.

Translation:

- Translate the shape from point a to point b.

Rotation:

- Rotate shapes 90,180, 270 degrees.

Symmetry & Reflection:

- Identify lines of symmetry in 2D shapes.
- Reflection in x and y axis (horizontal, vertical and diagonal).



Algebra

- Use simple formulae e.g. $2x + 6 = 10$ $x=7$
- Generate and describe linear number sequences.
- Understand equivalent expressions e.g. $a + b = b + a$

Ratio & Proportion

- Use ratio when comparing quantities, size and scale using the notation a:b.
- Solve problems involving the calculation of percentages (15% of 360)
- Solve problems using unequal quantities e.g. for every egg you need 3 spoonful's of flour.

Statistics

- Interpret and construct pie charts and line graphs and use these to solve problems.
- Read and interpret scales.
- Interpret information in tables (including timetables).
- Interpret and draw graphs relating to two variables.
- Find the Mean, Median, Mode and Range of a set of data.

Year 6 Methods

	5	2	0	9
+	3	1	9	2
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	8	4	0	1
		1	1	

Column Addition:

	T	Th	Th	H	T	O
	7	⁴ 5	¹ 5	² 3	¹ 2	
-	2	2	6	2	3	
<hr/>						
	5	2	9	0	9	
<hr/>						

Column Subtraction:

3 digit x 1 digit Formal long Multiplication:

3 digit x 1 digit Formal short Multiplication:

- Multiply the units.
- Multiply the tens.
- Multiply the hundreds.
- Add together the three separate answers.

Th	H	T	U
	5	4	3
		×	4
<hr/>			
		1	2
			(4 × 3)
	1	6	0
			(4 × 40)
2	0	0	0
			(4 × 500)
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2	1	7	2

Th	H	T	U
	4	8	7
		×	9
<hr/>			
4	3	8	3
	7	6	

3 digit ÷ 1 digit

Formal Short Division:

(Bus stop)

186 ÷ 6 =

	0	3	1
6	1	8	6
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no groups of 6 can be made 1 × 6 = 6
 3 × 6 = 18

Year 6 Vocabulary

FRACTIONS, DECIMALS, PERCENTAGES, RATIO AND PROPORTION

part, equal parts
fraction, proper/improper fraction
mixed number
numerator, denominator
equivalent, reduced to, cancel
one whole
half, quarter, eighth
third, sixth, ninth, twelfth
fifth, tenth, twentieth
hundredth, **thousandth**
proportion, ratio
in every, for every
to every, as many as
decimal, decimal fraction
decimal point, decimal place
percentage, per cent, %

MULTIPLICATION AND DIVISION

lots of, groups of
times, multiply, multiplication, multiplied by
multiple of, product
once, twice, three times... ten times...
times as (big, long, wide... and so on)
repeated addition
array, row, column
double, halve

ADDITION AND SUBTRACTION

add, addition, more, plus, increase
sum, total, altogether
score
double, near double
how many more to make...?
subtract, subtraction, take (away), minus, decrease
leave, how many are left/left over?
difference between
half, halve
how many more/fewer is... than...?
how much more/less is...?
equals, sign, is the same as
tens boundary, hundreds boundary
units boundary, tenths boundary
inverse

Handling data

count, tally, sort, vote
survey, questionnaire
data, database
graph, block graph, line graph
pictogram,
represent
group, set
list, chart, bar chart, bar line chart
tally chart
table, frequency table
Carroll diagram, Venn diagram
label, title, axis, axes
diagram
most popular, most common
least popular, least common
mode, range, **mean, average, median**
statistics, distribution
maximum/minimum value
classify, outcome