	Number and place value	Addition and subtraction	Multiplication and Division	Fractions	Measurement	Geometry: Shape	Statistics
Progression of Knowledge, Skills and Vocabulary							
Year 3							
I know...	Each digit in a number represents a different value and can identify them all to a thousand. To count in multiples we must increase by the same difference each time. There are ten hundreds in a thousand.	Problems require different methods of calculation and how column addition/subtraction is applied for larger numbers. Mental calculation strategies can help with additions and subtractions less than three digits. Inverse can be used to check problems and which calculation to select..	My 3-, 4- and 8-times tables and their division facts. The gird method is used to multiply 2 digits by 1 digit problems and how to apply them. Division is the inverse of multiplication and that fact families are used to solve missing number problems. .	A tenth follows a one and how they are created when a whole is divided into ten equal parts. A discrete set of objects can be expressed as unit fractions or non-unit fractions. Common denominators must be used to add/subtract fractions. Fractions can be equal even if they have different denominators & how doubling/halving denominators can be used. Fractions can be added and subtracted; the numerator is affected.	g /kg represent weight, cm, m, km represent distance/height and that ml,l represent capacity. Kilo means 1000. Cent means 100 and milli means 1000 and this can help solve problems of conversion. Perimeter is the total distance around the edge of a 2d shape. A pound has 100 pence and we can show this through decimals. AM means before midday and PM means past midday.	Right angles form the corner of a square at 90 degrees and that two right angles make a half-turn, three make three quarters of a turn and four a complete turn. Angles can be greater than or less than a right angle Vertical lines travel up and horizontal lines travel across. parallel lines do not touch and maintain an equal distance constantly. I know perpendicular lines meet at a right angle.	Charts are used to represent and compare different totals and amounts. A key must be read to understand a pictogram and that half an image would equate to half the amount.

| So I can… | Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number

Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) =

Compare and order numbers up to 1000

identify, represent and estimate numbers using different representations

Read and write numbers up to 1000 in numerals and in words

Solve number problems and practical problems involving these ideas. | Add and subtract numbers mentally, including:

-a three-digit number and ones a three- digit number and tens

-a three-digit number and hundreds

Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction

Estimate the answer to a calculation and use inverse operations to check answers

Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | 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 x one-digit numbers, using mental and progressing to formal methods

Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems | Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one- digit numbers or quantities by 10

Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators

Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

Recognise and show, using diagrams, equivalent fractions with small denominators

Add and subtract fractions with the same denominator within one whole | Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

Measure the perimeter of simple 2-D shapes

Add and subtract amounts of money to give change, using both £ and p in practical contexts

Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks

Estimate and read time with increasing accuracy to the nearest minute; record and compare time in | Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them

Recognise angles as a property of shape or a description of a turn

Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle

Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. | Interpret and present data using bar charts, pictograms and tables

Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. |
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				[for example, 5⁄7 + 1⁄7 = 6⁄7] Compare and order unit fractions,and fractions with the same denominator Solve problems that involve all of the above.	terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight Know the number of seconds in a minute and the number of days in each month, year and leap year Compare durations of events [for example to calculate the time taken by particular events or tasks].	

| **Vocabulary I will use…** | zero… thousand relationship

one hundred more, one hundred less

approximate, approximately

round up, round down

place holder, estimate, near

double | hundreds boundary

equation
column(ar) addition

column(ar) subtraction

inverse operation, exchange | remainder
equation

inverse operation | two thirds, three thirds, one tenth, tenths
denominator
numerator | more expensive, most expensive
less expensive, least expensive

amount, value, worth
approximately

distance apart, distance between distance to, distance from

millimetre (mm), kilometre (km), mile century

leap year calendar date

am, pm, noon earliest, latest

12 hour clock, 24 hour clock Roman numerals I to XII

perimeter | right-angled triangle hemi-sphere, semi-circle

pentagonal, hexagonal, octagonal polyhedron

perpendicular parallel

non-symmetrical regular

irregular right angle acute angle obtuse angle

…angle, …is a greater/smaller angle than… | chart grid

bar chart frequency table Carroll diagram Venn diagram axis

axes interval data row column |
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