



St Michael Catholic Primary School & Nursery

Excellence • Enrichment • Enjoyment



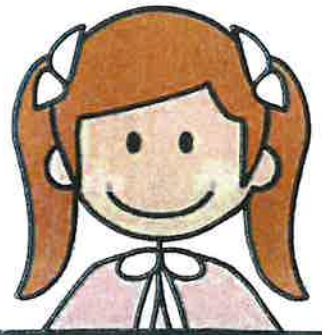
KS2

Free Resource Pack

Contents:

- Multiplication Square
 - Patterns - Learning Times Tables - Division - Squared numbers
- Fraction Wall
 - Equivalent fractions - Compare and order fractions - Patterns
- Roman Numerals 100 Square
- Blank Number Line
 - Counting forwards and backwards - Repeated addition - Basis of division
 - Ordering numbers - Fractions - Decimals - Negative numbers - Sequences
- Place Value Grid
- Conversion of Measures
- 'Take 1 Number'
 - Fluency with different numbers - Consolidation of methods
- Curriculum objectives
- Ideas of how you can help at home

Multiplication Table



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

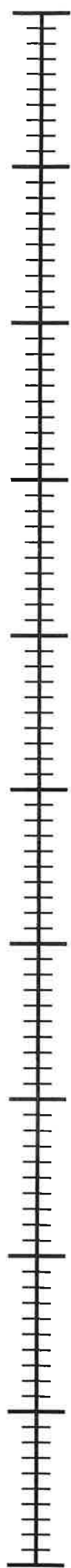
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Roman Numerals 1-200



1: I 2: II 3: III 4: IV 5: V 6: VI 7: VII 8: VIII 9: IX 10: X	11: XI 12: XII 13: XIII 14: XIV 15: XV 16: XVI 17: XVII 18: XVIII 19: XIX 20: XX	21: XXI 22: XXII 23: XXIII 24: XXIV 25: XXV 26: XXVI 27: XXVII 28: XXVIII 29: XXIX 30: XXX	31: XXXI 32: XXXII 33: XXXIII 34: XXXIV 35: XXXV 36: XXXVI 37: XXXVII 38: XXXVIII 39: XXXIX 40: XL	41: XLI 42: XLII 43: XLIII 44: XLIV 45: XLV 46: XLVI 47: XLVII 48: XLVIII 49: XLIX 50: L	51: LI 52: LII 53: LIII 54: LIV 55: LV 56: LVI 57: LVII 58: LVIII 59: LIX 60: LX	61: LXI 62: LXII 63: LXIII 64: LXIV 65: LXV 66: LXVI 67: LXVII 68: LXVIII 69: LXIX 70: LXX
71: LXXI 72: LXXII 73: LXXIII 74: LXXIV 75: LXXV 76: LXXVI 77: LXXVII 78: LXXVIII 79: LXXIX 80: LXXX	81: LXXXI 82: LXXXII 83: LXXXIII 84: LXXXIV 85: LXXXV 86: LXXXVI 87: LXXXVII 88: LXXXVIII 89: LXXXIX 90: XC	91: XCI 92: XCII 93: XCIII 94: XCIV 95: XCV 96: XCVI 97: XCVII 98: XCVIII 99: XCIX 100: C	101: CI 102: CII 103: CIII 104: CIV 105: CV 106: CVI 107: CVII 108: CVIII 109: CIX 110: CX	91: XCI 92: XCII 93: XCIII 94: XCIV 95: XCV 96: XCVI 97: XCVII 98: XCVIII 99: XCIX 100: C	111: CXI 112: CXII 113: CXIII 114: CXIV 115: CXV 116: CXVI 117: CXVII 118: CXVIII 119: CXIX 120: CXX	121: CXXI 122: CXXII 123: CXXIII 124: CXXIV 125: CXXV 126: CXXVI 127: CXXVII 128: CXXVIII 129: CXXIX 130: CXXX
131: CXXXI 132: CXXXII 133: CXXXIII 134: CXXXIV 135: CXXXV 136: CXXXVI 137: CXXXVII 138: CXXXVIII 139: CXXXIX 140: CXL	141: CXLI 142: CXLII 143: CXLIII 144: CXLIV 145: CXLV 146: CXLVI 147: CXLVII 148: CXLVIII 149: CXLIX 150: CL	151: CLI 152: CLII 153: CLIII 154: CLIV 155: CLV 156: CLVI 157: CLVII 158: CLVIII 159: CLIX 160: CLX	161: CLXI 162: CLXII 163: CLXIII 164: CLXIV 165: CLV 166: CLXVI 167: CLXVII 168: CLXVIII 169: CLXIX 170: CLXX	171: CLXXI 172: CLXXII 173: CLXXIII 174: CLXXIV 175: CLXXV 176: CLXXVI 177: CLXXVII 178: CLXXVIII 179: CLXXIX 180: CLXXX	181: CLXXXI 182: CLXXXII 183: CLXXXIII 184: CLXXXIV 185: CLXXXV 186: CLXXXVI 187: CLXXXVII 188: CLXXXVIII 189: CLXXXIX 190: CXC	191: CXCI 192: CXCII 193: CXCIII 194: CXCIV 195: CXCV 196: CXCVI 197: CXCVII 198: CXCVIII 199: CXCIX 200: CC

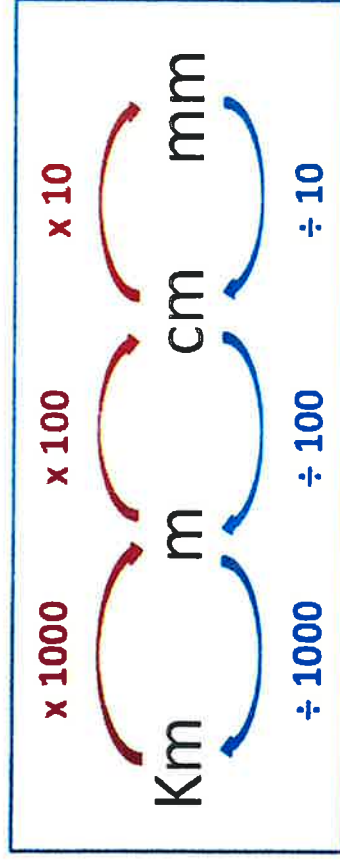
Use this Roman Numerals chart to help guide you on how to write the number you are looking for



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Converting LENGTH Units

It is easiest to use a conversion look-up diagram like the one below.



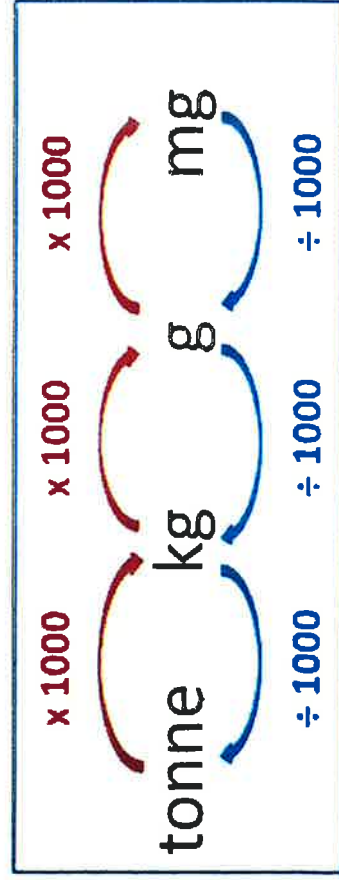
$$5 \text{ km} = ? \text{ m} \quad \text{Need to } \times 1000 \quad 5 \times 1000 = 5000 \text{ m} \quad \checkmark$$

$$120 \text{ cm} = ? \text{ m} \quad \text{Need to } \div 100 \quad 120 \div 100 = 1.2 \text{ m} \quad \checkmark$$

Converting MASS Units

The Mass for weighing objects in Metric Units is similar to Capacity for Volumes.

In the Metric System, Mass is based on the Gram or "g" unit.



Mass conversions use 1000's, and usually create fairly large results.

$$1.6 \text{ tonne} = ? \text{ kg} \quad \text{Need to } \times 1000 \quad 1.6 \times 1000 = 1600 \text{ kg} \quad \checkmark$$

Measurement conversions

Length

$$1 \text{ kilometre} = 1000 \text{ metres}$$

$$1 \text{ metre} = 100 \text{ centimetres}$$

$$1 \text{ centimetre} = 10 \text{ millimetres}$$



twinkl

km

m

cm

mm

Measurement conversions

Weight

$$1 \text{ tonne} = 1000 \text{ kilograms}$$

$$1 \text{ kilogram} = 1000 \text{ grams}$$

$$1 \text{ gram} = 1000 \text{ milligrams}$$



twinkl

t

kg

g

mg



NUMBER



Odd or even?



Place Value

Thousands - _____

Hundreds - _____

Tens - _____

More than

10 more = _____

100 more = _____

1000 more = _____

Double it

Halve it

Round it to the nearest...

10 = _____

100 = _____

1000 = _____

Less than

10 less = _____

100 less = _____

1000 less = _____

Multiply by

10 = _____

100 = _____

1000 = _____

Divide by

10 = _____

100 = _____

1000 = _____

Write it in words

Show it in dienes

Show it in place value counters

Write a word problem that has this number as the answer.



NUMBER



Prime
number?

Squared
number?

Cubed
number?



Place Value

Thousands - _____

Hundreds - _____

Tens - _____

Ones - _____

More than

10 more = _____

100 more = _____

1000 more = _____

10, 000 more = _____

100, 000 more = _____

Less than

10 less = _____

100 less = _____

1000 less = _____

10, 000 less = _____

100, 000 less = _____

Multiply by

10 = _____

100 = _____

1000 = _____

Divide by

10 = _____

100 = _____

1000 = _____

Double it

Halve it

Multiples

Factors

Write a multi-step problem that
has this number as the answer.

Year 3 Maths Checklist

Name: _____

Number – Number and Place Value

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

Number – Addition and Subtraction

I can:

- ☐ 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 facts, place value, and more complex addition and subtraction

Number – Multiplication and Division

I can:

- ☐ 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
- ☐ 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.

Number – Fractions

I can:

- ☐ 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 (for example, $\frac{3}{4} + \frac{1}{4} = \frac{4}{4}$)
- ☐ compare and order unit fractions, and fractions with the same denominators
- ☐ solve problems that involve all of the above

Measurement

I can:

- ☐ 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 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)

Geometry – Properties of Shapes

I can:

- ☐ 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

Statistics

I can:

- ☐ 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

Name:

Number – Number and Place Value

I can:

- ☐ count in multiples of 6, 7, 9, 25 and 1000
- ☐ find 1000 more or less than a given number
- ☐ count backwards through zero to include negative numbers
- ☐ recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- ☐ order and compare numbers beyond 1000
- ☐ identify, represent and estimate numbers using different representations
- ☐ round any number to the nearest 10, 100 or 1000
- ☐ solve number and practical problems that involve all of the above and with increasingly large positive numbers
- ☐ read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Number – Addition and Subtraction

I can:

- ☐ add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- ☐ estimate and use inverse operations to check answers to a calculation
- ☐ solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Number – Multiplication and Division

I can:

- ☐ recall multiplication and division facts for multiplication tables up to 12×12
- ☐ use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1, dividing by 1; multiplying together three numbers
- ☐ recognise and use factor pairs and commutativity in mental calculations
- ☐ multiply two-digit and three-digit numbers by a one-digit number using formal written layout

- ☐ solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Number – Fractions

I can:

- ☐ recognise and show, using diagrams, families of common equivalent fractions
- ☐ count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- ☐ solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- ☐ add and subtract fractions with the same denominator
- ☐ recognise and write decimal equivalents of any number of tenths or hundredths
- ☐ recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
- ☐ find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- ☐ round decimals with one decimal place to the nearest whole number
- ☐ compare numbers with the same number of decimal places up to two decimal places
- ☐ solve simple measure and money problems involving fractions and decimals to two decimal places

Measurement

I can:

- ☐ convert between different units of measure (for example, kilometre to metre; hour to minute)
- ☐ measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- ☐ find the area of rectilinear shapes by counting squares
- ☐ estimate, compare and calculate different measures, including money in pounds and pence
- ☐ read, write and convert time between analogue and digital 12- and 24-hour clocks
- ☐ solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Geometry – Properties of Shapes

I can:

- ☐ estimate, compare and calculate different measures, including money in pounds and pence
- ☐ compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- ☐ identify acute and obtuse angles and compare and order angles up to two right angles by size
- ☐ identify lines of symmetry in 2-D shapes presented in different orientations
- ☐ complete a simple symmetric figure with respect to a specific line of symmetry

Geometry – Position and Direction

I can:

- ☐ describe positions on a 2-D grid as coordinates in the first quadrant
- ☐ describe movements between positions as translations of a given unit to the left/right and up/down
- ☐ plot specified points and draw sides to complete a given polygon.

Statistics

I can:

- ☐ interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
- ☐ solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Year 5 Maths Checklist



Name:

Number – Number and Place Value

I can:

- ☐ read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- ☐ count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
- ☐ interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- ☐ round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
- ☐ solve number problems and practical problems that involve all of the above
- ☐ read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Number – Addition and Subtraction

I can:

- ☐ add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- ☐ add and subtract numbers mentally with increasingly large numbers
- ☐ use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- ☐ solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Number – Multiplication and Division

I can:

- ☐ identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- ☐ know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
- ☐ establish whether a number up to 100 is prime and recall prime numbers up to 19
- ☐ 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

- ☐ multiply and divide numbers mentally drawing upon known facts
- ☐ divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- ☐ multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- ☐ recognise and use square numbers and cube numbers, and the notation for squared (2^2) and cubed (3^3)
- ☐ solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- ☐ solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- ☐ solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Number – Fractions

I can:

- ☐ compare and order fractions whose denominators are all multiples of the same number
- ☐ identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- ☐ recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (for example, $2\frac{1}{5} + \frac{4}{5} = 6\frac{1}{5} = 1\frac{1}{5}$)
- ☐ add and subtract fractions with the same denominator and denominators that are multiples of the same number
- ☐ multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- ☐ read and write decimal numbers as fractions (for example, $0.71 = \frac{71}{100}$)
- ☐ recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- ☐ round decimals with two decimal places to the nearest whole number and to one decimal place
- ☐ read, write, order and compare numbers with up to three decimal places

- ☐ solve problems involving number up to three decimal places
- ☐ recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- ☐ solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$, and those fractions with a denominator of a multiple of 10 or 25.

Measurement

I can:

- ☐ convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- ☐ understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- ☐ measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- ☐ calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes
- ☐ estimate volume (for example, using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (for example, using water)
- ☐ solve problems involving converting between units of time
- ☐ use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling.

Geometry – Properties of Shapes

I can:

- ☐ identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- ☐ use the properties of rectangles to deduce related facts and find missing lengths and angles
- ☐ distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- ☐ know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles

- ☐ draw given angles, and measure them in degrees (a)
- ☐ identify angles at a point and one whole turn (total 360°)
- ☐ identify angles at a point on a straight line and half a turn (total 180°)
- ☐ identify other multiples of 90°

Geometry – Position and Direction

I can:

- ☐ identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

Statistics

I can:

- ☐ solve comparison, sum and difference problems using information presented in a line graph
- ☐ complete, read and interpret information in tables, including timetables

Name: _____

Number – Number and Place Value

I can:

- ☐ read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
- ☐ round any whole number to a required degree of accuracy
- ☐ use negative numbers in context, and calculate intervals across zero
- ☐ solve number and practical problems that involve all of the above

Number – Addition and Subtraction

I can:

- ☐ solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- ☐ perform mental calculations, including with mixed operations and large numbers
- ☐ use their knowledge of the order of operations to carry out calculations involving the four operations
- ☐ solve problems involving addition, subtraction, multiplication and division
- ☐ use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

Number – multiplication and division

I can:

- ☐ 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 method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- ☐ divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- ☐ identify common factors, common multiples and prime numbers
- ☐ perform mental calculations, including with mixed operations and large numbers
- ☐ use my knowledge of the order of operations to carry out calculations involving the four operations
- ☐ solve problems involving addition, subtraction, multiplication and division

- ☐ use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

Number – Fractions

I can:

- ☐ use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- ☐ compare and order fractions, including fractions > 1
- ☐ add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- ☐ multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)
- ☐ divide proper fractions by whole numbers (for example, $\frac{1}{3} \div 2 = \frac{1}{6}$)
- ☐ associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375) for a simple fraction (for example, $\frac{3}{8}$)

- ☐ identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
- ☐ multiply one digit numbers with up to two decimal places by whole numbers
- ☐ use written division methods in cases where the answer has up to two decimal places
- ☐ solve problems which require answers to be rounded to specified degrees of accuracy
- ☐ recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Measurement

I can:

- ☐ solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- ☐ use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places
- ☐ convert between miles and kilometres
- ☐ recognise that shapes with the same areas can have different perimeters and vice versa
- ☐ recognise when it is possible to use formulae for area and volume of shapes
- ☐ calculate the area of parallelograms and triangles
- ☐ calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (for example, mm^3 and km^3)

Geometry – Properties of Shapes

I can:

- ☐ draw 2-D shapes using given dimensions and angles
- ☐ recognise, describe and build simple 3-D shapes, including making nets
- ☐ compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- ☐ illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- ☐ recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Geometry – Position and Direction

I can:

- ☐ describe positions on the full coordinate grid (all four quadrants)
- ☐ draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Statistics

I can:

- ☐ interpret and construct pie charts and line graphs and use these to solve problems
- ☐ calculate and interpret the mean as an average

Ratio and Proportion

I can:

- ☐ solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- ☐ solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison
- ☐ solve problems involving similar shapes where the scale factor is known or can be found
- ☐ solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Algebra

I can:

- ☐ use simple formulae
- ☐ generate and describe linear number sequences
- ☐ express missing number problems algebraically
- ☐ find pairs of numbers that satisfy an equation with two unknowns
- ☐ enumerate possibilities of combinations of two variables

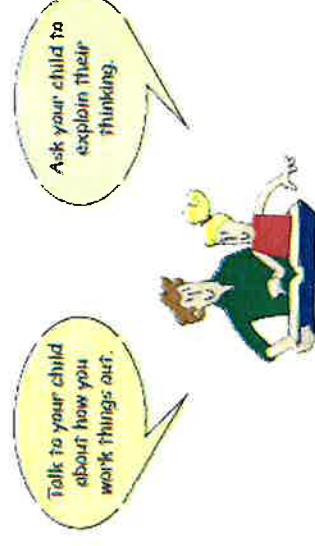
COUNTING IDEAS

- Practise chanting the number names. Encourage your child to join in with you. When they are confident, try starting from different numbers - 4, 5, 6, 12
- Sing number rhymes together - there are lots of commercial tapes and CD's available.
- Give your child the opportunity to count a range of interesting objects (coins, pasta shapes, buttons etc.). Encourage them to touch and move each object as they count.
- Count things you cannot touch or see (more difficult!!). Try lights on the ceiling, window panes, jumps, claps or oranges in a bag.
- Play games that involve counting (e.g. snakes and ladders, dice games, games that involve collecting objects).
- Look for numerals in the environment. You can spot numerals at home, in the street or when out shopping.
- Cut out numerals from newspapers, magazines or birthday cards. Then help your child to put the numbers in orders.
- Make mistakes when chanting, counting or ordering numbers. Can your child spot what you have done wrong?
- Choose a number of the week e.g. 5. Practise counting to 5 and on from 5. Count out groups of 5 objects (5 dolls, 5 bricks, 5 pens). See how many places you can spot the numeral 5.



CALCULATIONS

The maths work your child is doing at school may look very different to the kind of 'sums' you remember. This is because children are encouraged to work mentally, where possible, using personal jottings to help support their thinking. Even when children are taught more formal written methods they are encouraged to use these methods to support the calculations they cannot solve in their heads.



When faced with a calculation problem, encourage your child to ask...

- Can I do this in my head?
- Could I do this in my head using drawings or jottings to help me?
- Do I need to use a written method?
- Should I use a calculator?



Also help your child to estimate and then check the answer. Encourage them to ask...

Is the answer sensible?

PRACTISING NUMBER FACTS

- Find out which number facts your child is learning
- at school (addition facts to 10, times tables, doubles etc). Try to practise for a few minutes each day using a range of vocabulary.
- Have a 'fact of the day'. Pin this fact up around the house. Practise reading it in a quiet, loud, squeaky voice. Ask your child over the day if they can recall the fact.
- Play 'ping pong' to practise complements with your child. You say a number. They reply with how much more is needed to make 10. You can also play this game with numbers totalling 20, 100 or 1000. Encourage your child to answer quickly, without counting or using fingers.
- Throw 2 dice. Ask your child to find the total of the numbers (+), the difference between them (-) or the product (x). Can they do this without counting?
- Use a set of playing cards (no pictures). Turn over two cards and ask your child to add or multiply the numbers. If they answer correctly, they keep the cards. How many cards can they collect in 2 minutes?
- Play Bingo. Each player chooses five answers (e.g. numbers to 10 to practise simple addition, multiples of 5 to practise the five times tables). Ask a question and if a player has the answer, they can cross it off. The winner is the first player to cross off all their answers.
- Give your child an answer. Ask them to write as many addition sentences as they can with this answer (e.g. $10 = 6 + 4$). Try with multiplication or subtraction.
- Give your child a number fact (e.g. $5+3=8$). Ask them what else they can find out from this fact (e.g. $3+5=8$, $8-5=3$, $8-3=5$, $50+30=80$, $500+300=800$, $5+4=9$, $15+3=18$). Add to the list over the next few days. Try starting with a x fact as well.