Year 3 and 4 Maths Long Term Plan

PHASE 1

	Number and Place Value	Addition and Subtraction	Multiplication and Division
Year 3	Recognise the place value of each digit in 3-digit numbers (100s, 10s and ones) up to 1000 Identify, represent, and estimate numbers using different representations such as number lines Find 10 or 100 more or less Round any number to the nearest 10, 100 Compare and order numbers using < , > , = signs (Y2) Read and write numbers to at least 100 in numerals and in words.	Add and subtract numbers mentally including a 3-digit number and ones tens, and hundreds. Estimate the answer to a calculation and use inverse operations to check answers	Recall and use multiplication and division facts for the 2x, 5x and 10x tables. Use grid arrays for representing x and ÷ facts rather than dotty arrays Count in multiples of 3 and 4 from zero Derive and recall 3x and 4x tables and associated division facts Write/ recall mathematical statements using mental strategies and known facts (x / ÷) Solve problems involving multiplication and division using number lines, arrays and bars
Year 4	Recognise the place value of each digit in 4-digit numbers (1000s, 100s, 10s and ones) up to 10,000 Identify, represent, and estimate numbers using different representations such as number lines Find 10, 100 or 1000 more or less Round any number to the nearest 10, 100, 1000 Recall and use addition and subtraction facts to 20 fluently and derive facts to 100 (Y2) Compare and order numbers up to 1000 using < , > , = signs (Y3)	Add and subtract numbers mentally including a 3-digit number and ones tens, and hundreds. (Y3) Estimate the answer to a calculation and use inverse operations to check answers Solve addition and subtraction two-step problems in contexts,	Use place value, known and derived facts to multiply and divide mentally Recall and use multiplication and division facts for 2x, 3x, 4x, 5x, 8x, 10x tables (Y3) Use grid arrays for representing x and ÷ facts rather than dotty arrays (Y3) Count in multiples of 3 and 4 from zero (Y3) Derive, recall and use multiplication and division facts for 6x and 12x tables Solve missing number problems and problems involving multiplying and adding (partitioning and recombining) such as 37 x 8 = (30 x 8) + (7 x 8)

PHASE 2

	Multiplication and Division	Money	Fractions/Decimals (4)	Length and Perimeter	Area
Year 3	Recall and use multiplication and division facts for 2x, 5x and 10 x (Y2) Derive, recall and use multiplication and division facts for 3x, 4x and 8x and count in steps of 3 , 4 and 8 from zero Write and calculate multiplication and division problems using known facts and mental or diagrammatic strategies (arrays) Use place value to divide one-and two-digit numbers by 10. Link this to tenths. Solve problems, including missing number problems, involving multiplication and division. Being to use arrays and number-partitioning to underpin the grid method for multiplication when multiplying two-digit numbers by one-digit numbers (36 x 4 = 30 x 4 + 6 x 4) Solve integer scaling problems such as 'four times as long and correspondence problems such as 48 sweets shared equally between 4 children ,	Add and subtract amounts of money to give change using both £ and p in practical contexts Find different combinations of coins that equal the same amounts of money (Y2) Record money calculations pictorially using bar models and number lines Add and subtract amounts of money to give change, using both £ and p in practical contexts	Recognise, find, and write unit fractions of a discrete set of objects Compare and order fractions with the same denominators (bar model and number line) Recognise that tenths arise from dividing an object or quantity into ten equal parts Count up and down in halves, quarters, thirds, and tenths on a number line Develop fraction families using fraction walls and bar models as an introduction to equivalence Recognise and use unit fractions as numbers on a number line Recognise and show, using diagrams, equivalent fractions with small, related denominators (fraction families) Add and subtract fractions with the same denominator within one whole(using bar models) Solve problems involving simple fractions	Measure, compare, add and subtract length in m and cm Measure the perimeter of simple 2D shapes Measure and compare lengths in m, cm and mm Know 10mm = 1cm; 100cm = 1m; 1000mm = 1m Derive associated facts: 50cm = 12 m , 25cm = 14 m , 75cm = 34 m	Find the area of rectilinear shapes by counting squares.
Year 4	Recall and use multiplication and division facts for 2x, 3x, 4x, 5x,6x, 8x, 10x and 12x Count in multiples of 6, 7 and 9 from zero	Add and subtract amounts of money to give change using both £ and p and to solve problems	Count up and down in tenths (proper and decimal fractions); recognise that tenths arise from dividing into ten equal parts	Convert between kilometres, metres, centimetres and millimetres Estimate, compare and calculate with measures of length	Find the area of rectilinear shapes by counting squares.

	Use place value and known and derived facts to multiply and divide mentally, including by 0 and 1 Multiply three numbers together Solve multiplication and division problems with whole numbers Multiply two-and one-digit numbers by a one-digit number Divide one-and two-digit numbers by 10 and 100 Write and calculate mathematical statements for multiplication and division using known tables facts and mental strategies. Recognise and use factor pairs and commutativity in mental calculations Multiply two-digit and three-digit numbers by a one-digit number using a formal written layout	Know 100p = £1 = 2x50p = 10 x 10p = 5 x 20p = 50 x 2p; relate to multiplication and repeated addition facts Record addition and subtraction money calculations using number lines and bar models. Estimate, compare and calculate with money in £ and p. Convert between £ and p Solve simple money problems involving fractions and decimals to two decimal places	Count up and down in hundredths, recognise that hundredths arise from dividing by 100 Round decimals numbers with one decimal place to the nearest whole number. Find the effect of dividing a one- or two-digit number by 10 or 100 Recognise and show families of equivalent fractions using bar model diagrams Add and subtract fractions with the same denominator , bridging one whole Recognise and show common equivalent fractions with diagrams Solve problems with fractions , fractions of quantities and fractions as division, including non-unit fractions where the answer is a whole number. Find the effect of dividing a one- or two-digit number to 10 and 100, identifying the value fo the digits in the answer as ones, tenths and hundredths. Round decimals with one decimal place to the nearest whole number Link hundredths to dividing by 100 Recognise and write decimal equivalents	Measure and calculate the perimeter of a rectilinear figure in cm and m Solve length problems involving fractions and decimals to two decimal places Round decimals in the context of length to the nearest whole number Compare lengths with the same number of decimal places (up to 2 dps)	

PHASE 3

	Shape	Statistics	Measurement	Position and Direction
Year 3	Sort and classify 2D and 3D shapes using known properties Describe and classify 2D shapes using the language parallel, perpendicular, horizontal, and vertical Recognise 3D shapes in different orientations and describe them Sort and group different prisms and pyramids Construct prisms and pyramids with prepared nets, describe the shape of the faces Recognise angles as a property of shape Know that two right-angles make a half-turn, three make a three-quarter turn and four make a complete turn. Identify whether angles are greater or less than a right angle.	Interpret and present data using bar charts, pictograms and tables Solve one-step problems interpreting scaled bar charts, pictograms with non-unit symbols and tables	Measure and compare mass in g and kg Know 1000g = 1kg and derive associated facts 500 g = 12 kg , 250 g = 14 kg , 750 g = 34 kg and 100 g = 110 kg Count up and down in fractions of measure Tell the time from an analogue 12-hour clock Use vocabulary of time (am/pm) Solve problems in practical contexts Tell and write the time using 12- and 24-hour clocks Estimate and read the time to the nearest minute Record and compare times in terms of seconds, minutes and hours Know 1 hour = 60 minutes; 12 hour = 30 mins, 14 hour = 15 mins; 34 hour = 45 mins; 60 seconds = 1 minute Tell the time from an analogue clock, including using Roman numerals I to XII, 12-hour and 24-hour representations, using am/pm vocabulary as appropriate Estimate and tell the time to the nearest minute Record and compare time in terms of duration of events Know 60 seconds = 1 minute and the number of days in each month, year and leap-year	Draw 2D shapes and make 3D shapes using modelling materials and simple nets Identify right angles Identify horizontal and vertical lines
Ye	Compare and classify geometric shapes, including quadrilaterals and	Solve comparison, sum and difference problems using information in bar charts for	Measure and compare mass (kg and g)	Identify acute and obtuse angles Complete a simple symmetric

a r 4	triangles, based on their properties and sizes. Identify acute and obtuse angles and compare and order angles up to two right angles by size Find the area of rectilinear shapes by counting squares Compare and classify geometric shapes Identify acute and obtuse angles Identify lines of symmetry in 2D shapes Describe positions on a 2D grid as coordinates in the first quadrant	discrete data, time graphs for continuous data pictograms and other graphs	Know 1000g = 1kg and derive associated facts 500 g = 12 kg , 250 g = 14 kg , 750 g = 34 kg and 100 g = 110 kg (Y3) Read, write and convert time between analogue and digital 12- and 24-hour clocks Solve problems converting between hours, minutes, seconds, years, months, weeks and days Solve problems involving converting between hours, minutes, seconds, years, months, weeks and days. Represent time intervals on a number line Know 1 hour = 60 minutes; 12 hour = 30 mins, 14 hour = 15 mins; 34 hour = 45 mins; 60 seconds = 1 minute (Y3) and 365 days in a year, with 366 I a leap year, 14 days in a fortnight	figure with respect to a specific line of symmetry Describe positions on a 2D grid as coordinates in the first quadrant Find the area of rectilinear shapes by counting squares Plot specified points on a 2D grid as coordinates in the first quadrant and draw sides to complete a given polygon. Describe movements between positions as translations of a given unit to the left/right or up/down

Then – revision, consolidation, time to be flexible with the units if children have had misconceptions and we have had to spend longer on certain areas.