Primary Numeracy Strategy

5 BLocks are covered 3 times in a Year

- A – Counting, Partitioning and Calculating – 2 week blocks
- B – Securing number facts, understanding shapes – 3 week blocks
- C – Handling Data and Measures – 2 week blocks
- D– Calculating, Measuring and Understanding Shape – 2 week blocks
- E– Securing number Facts, Relationships and Calculating – 3 week blocks

Vocabulary for Each Block

A – Counting, Partitioning and Calculating

Year 5

problem, solution, calculate, calculation, equation, operation, answer, method, explain, reasoning, reason, predict, relationship, rule, formula, pattern, sequence, term, consecutive

place value, digit, numeral, partition, decimal point, decimal place, thousands, ten thousands, hundred thousands, millions, tenths, hundredths, positive, negative, above/below zero, compare, order, ascending, descending, greater than (>), less than (<), round, estimate, approximately

add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, factor, multiple

calculator, display, key, enter, clear, constant

pound (£), penny/pence (p), units of measurement and their abbreviations, degree Celsius (°C)

Year 6

problem, solution, calculate, calculation, equation, operation, answer, method, strategy, explain, reason, predict, relationship, rule, formula, pattern, sequence, term, consecutive, represent

place value, digit, numeral, partition, integer, decimal point, decimal place, thousandths, positive, negative, compare, order, ascending, descending, greater than (>), less than (<), round, estimate, approximate, approximately

add, subtract, multiply, divide, convert, sum, total, difference, plus, minus, product, quotient, dividend, divisor, remainder calculator, display, key, enter, clear, constant

pound (£), penny/pence (p), note, coin, units of measurement and their abbreviations

B – Securing number facts, understanding shapes

Year 5

problem, solution, calculate, calculation, equation, method, explain, reasoning, reason, predict, pattern, relationship, formula, rule, classify, property, criterion/criteria, generalise, general statement

integer, square number, multiple, factor, divisor, divisible by, decimal, decimal point, decimal place

operation, inverse, add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, double, halve, factor, multiple, divisor, round, estimate, approximate

3-D, three-dimensional, vertex, vertices, face, edge, 2-D, two-dimensional, regular, irregular, polygon, side, parallel, perpendicular, angle, degree (°), acute, obtuse, protractor, angle measurer, names of shapes, including equilateral triangle, isosceles triangle, scalene triangle, quadrilateral, octahedron

reflection, reflective symmetry, line of symmetry, mirror line, rotation, translation, origin, coordinates, x-coordinate, y-coordinate, x-axis, y-axis

Year 6

problem, solution, calculate, calculation, equation, method, explain, reasoning, reason, predict, rule, formula, relationship, sequence, pattern, classify, property, criterion/criteria, generalise, construct

integer, decimal, fraction, square number, multiple, factor, factorise, divisor, divisible, divisibility, prime, prime factor, consecutive, operation, inverse, product, quotient, round, estimate, approximate

parallel, perpendicular, regular, irregular, face, edge, vertex/vertices, polyhedron, dodecahedron, octahedron, tetrahedron, polygon, quadrilateral, rhombus, kite, parallelogram, trapezium, triangle, isosceles, equilateral, scalene, radius, diameter, circumference, intersecting, intersection, plane

C – Handling Data and Measures

Year 5

problem, solution, calculate, calculation, method, explain, reasoning, reason, predict, pattern, relationship, classify, represent, analyse, interpret

fair, unfair, risk, doubt, likely, unlikely, likelihood, certain, uncertain, probable, possible, impossible, chance, good chance, poor chance, no chance, outcome
units of measurement and their abbreviations

data, information, survey, questionnaire, graph, chart, table, horizontal axis, vertical axis, axes, label, title, scale, pictogram, bar chart, bar-line chart, line graph, mode, maximum/minimum value

Year 6

problem, solution, calculate, calculation, method, explain, reasoning, reason, predict, pattern, relationship, classify, represent, analyse, interpret

fair, unfair, risk, doubt, likely, unlikely, equally likely, likelihood, certain, uncertain, probable, possible, impossible, chance, good chance, poor chance, no chance, equal chance, even chance, outcome, biased, random

estimate, measure, standard metric units of measurement and their abbreviations

data, information, survey, questionnaire, graph, chart, table, scale, interval, division, horizontal axis, vertical axis, axes, label, title, pictogram, bar chart, bar-line chart, line graph, pie chart

frequency, mode, maximum/minimum value, range, mean, average, median, statistics

D– Calculating, Measuring and Understanding Shape

Year 5

problem, solution, answer, method, strategy, compare, order, explain, predict, reason, reasoning, pattern, relationship

operation, calculation, calculate, calculator, equation, add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, calculator, memory, display, key, enter, clear

place, place value, decimal, decimal point, decimal place, estimate, approximate, approximately

measure, measurement, measuring scale, scales, balance, metre stick, tape measure, ruler, measuring cylinder, metric unit, standard unit, length, distance, perimeter, area, surface area, mass, weight, capacity, units of measurement and their abbreviations

days of the week, months of the year, second (s), minute (min), hour (h), day, month, calendar, timetable, 12-hour clock, 24-hour clock, am and pm

angle, degree (°), angle measurer, protractor, set-square, acute, obtuse, right angle position, direction, parallel, perpendicular, reflection, reflective symmetry, line of symmetry, mirror line, translation, coordinates, x-coordinate, y-coordinate, origin, x-axis, y-axis

Year 6

problem, solution, answer, method, strategy, compare, order, explain, predict, reason, reasoning, pattern, relationship

operation, calculation, calculate, equation, decimal, decimal point, decimal place, add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, calculator, memory, display, key, enter, clear

numerator, denominator, divisible by, multiple, factor

measure, estimate, approximately, metric unit, standard unit, length, distance, perimeter, area, surface area, mass, weight, capacity, angle, degree (°), angle measurer, protractor, set-square, balance, scales, units of measurement and their abbreviations, pound (£), penny/pence (p)

position, direction, reflection, reflective symmetry, line of symmetry, mirror line, rotation, centre of rotation, clockwise, anticlockwise, translation, origin, coordinates, x-coordinate, y-coordinate, x-axis, y-axis, axes, quadrant

E– Securing number Facts, Relationships and Calculating

Year 5

problem, solution, calculator, calculate, calculation, equation, operation, symbol, inverse, answer, method, explain, predict, reason, reasoning, pattern, relationship

add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, multiple, common multiple, factor, divisor, divisible by

decimal fraction, decimal place, decimal point, percentage, per cent (%)

fraction, proper fraction, improper fraction, mixed number, numerator, denominator, unit fraction, equivalent, cancel

proportion, in every, for every, to every

Year 6

problem, solution, calculator, calculate, calculation, jotting, equation, operation, symbol, inverse, answer, method, strategy, explain, predict, reason, reasoning, pattern, relationship

add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, multiple, common multiple, factor, divisor, divisible by

decimal fraction, decimal place, decimal point, percentage, per cent (%)

fraction, proper fraction, improper fraction, mixed number, numerator, denominator, unit fraction, equivalent, cancel

proportion, ratio, in every, for every, to every

Overcoming Barriers in Mathematics – Helping Children to move from Level 3 to Level 4
Ref: 00695-2007PCK-EN

CD Strand Link	Year 5 Block A Unit 1	Year 5 Block A Unit 2	Year 5 Block A Unit 3	Key Questions for Year 5 have been taken mainly from Example Review questions and Using and Applying Opportunities
Counting and Understanding Number	Count from any given number in whole number and decimal steps, extending beyond zero when counting backwards; relate the numbers to their position on a numberline	Count from any given number in whole number and decimal steps, extending beyond zero when counting backwards; relate the numbers to their position on a numberline	Count from any given number in whole number and decimal steps, extending beyond zero when counting backwards; relate the numbers to their position on a numberline	A sequence starts 520, 440, 360…What are the first 2 negative numbers in this sequence? A submarine is submerging at a rate of 4m per second. How far below the surface is it after 5 seconds, 10 seconds and 20 seconds?
Counting and Understanding Number	Explain what each digit represents in whole numbers and decimals with up to two places, and partition, round and order these numbers	Explain what each digit represents in whole numbers and decimals with up to two places, and partition, round and order these numbers	Explain what each digit represents in whole numbers and decimals with up to two places, and partition, round and order these numbers	Tell me a number that lies between 5.2 and 5.3. What does the 4 mean in each of these numbers? 3.4, 4.5, 0.34, 3.654
Knowing and Using Number Facts	Use knowledge of place value and addition and subtraction of 2 digit numbers to derive sums and differences and doubles and halves of decimals	Use knowledge of place value and addition and subtraction of 2 digit numbers to derive sums and differences and doubles and halves of decimals	Use knowledge of place value and addition and subtraction of 2 digit numbers to derive sums and differences and doubles and halves of decimals	What is half of 6.3? 0.15 divided by 2 =
Knowing and Using Number Facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts	5 second mental qs. What is 7 multiplied by 8? Divide 48 by 6 Multiply 8 by 6 What is the product of 6 and 9
Calculating	Extend mental methods for whole number calculations. Use understanding of place value to multiply and divide whole numbers by 10, 100 or 1000	Extend mental methods for whole number calculations. Use understanding of place value to multiply and divide whole numbers by 10, 100 or 1000		15 second mental qs. Multiply 45 by 40 What is 5000 divided by 20?
Calculating	Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	
Calculating		Use a calculator to solve problems	Use a calculator to solve problems	A bus holds 52 people. How many buses are needed for 327 people?

CD Strand Link	Year 5 Block B Unit 1	Year 5 Block B Unit 2	Year 5 Block B Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Knowing and Using Number Facts		Use knowledge of place value and addition and subtraction of 2 digit numbers to derive sums and differences and doubles and halves of decimals	Use knowledge of place value and addition and subtraction of 2 digit numbers to derive sums and differences and doubles and halves of decimals	Find a number whose double lies between 1.3 and 1.4
Knowing and Using Number Facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts	10 second mental qs. What is 25 times 5? What is 3 multiplied by 5 multiplied by 2? How many 50s are there in 1000?
Calculating	Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers		Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	Can I use a written method to multiply: 72 x 38 417 x 20 At the beginning of the cricket match there were 742 people watching. At tea time 218 went home. How many were left?
Calculating			Use a calculator to solve problems	Nicola has £50. She buys CDs at £12.75 each and a DVD at £9.65. How much money does she have left?

CD Strand Link	Year 5 Block C Unit 1	Year 5 Block C Unit 2	Year 5 Block C Unit 3	Key Questions for Year 5 have been taken mainly from Example Review questions and Using and Applying Opportunities
Measuring	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy; convert larger to smaller units using decimals to one place	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy; convert larger to smaller units using decimals to one place	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy; convert larger to smaller units using decimals to one place	Tell me an example of something you would measure in: Kilometres, metres, centimetres, millimetres 10 second qs. How many mms are there in 1¼ litres?
Measuring	Interpret a reading that lies between 2 unnumbered divisions on a scale	Interpret a reading that lies between 2 unnumbered divisions on a scale	Interpret a reading that lies between 2 unnumbered divisions on a scale	Show children a scale and ask qs such as: What is the reading at this point? What does each division represent? What is the maximum this scale can represent?
Handling Data		Describe the occurrence of familiar events using the language of chance or likelihood	Describe the occurrence of familiar events using the language of chance or likelihood	Discuss probabilities in other curriculum areas e.g. different chances of rain in different countries
Handling Data	Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask	Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask	Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask	Classify materials according to 2 different criteria in science lessons Write a climate report for different locations drawing on a range of information
Handling Data	Construct frequency tables, pictograms, and bar and line graphs to represent the frequencies of events and changes over time	Construct frequency tables, pictograms, and bar and line graphs to represent the frequencies of events and changes over time	Construct frequency tables, pictograms, and bar and line graphs to represent the frequencies of events and changes over time	Show a graph plotting temperature and time Ask qs like: What was the temperature at the beginning of the experiment? How do you know?
Handling Data	Find and interpret the mode of a set of data		Find and interpret the mode of a set of data	During the 12days of Christmas, the midday temperatures in ºC were 3, -1, 5, -1, 1, 0, 2, 5, 5, 1, 0, -2, -2 What is the mode of these temperatures? What is the range?

CD Strand Link	Year 5 Block D Unit 1	Year 5 Block D Unit 2	Year 5 Block D Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Calculating	Extend mental methods for whole number calculations. Use understanding of place value to multiply and divide whole numbers by 10, 100 or 1000	Extend mental methods for whole number calculations. Use understanding of place value to multiply and divide whole numbers by 10, 100 or 1000		10 second mental questions Ten times a number is 36; what is the number? How many mms are there in 2.5 litres?
Calculating		Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	Can I use a written method to answer: There is space in the car park for 17 rows of 32 cars. How many cars can I park? Calculate 12.4 – 3.6 Calculate 2003 - 279
Calculating	Use a calculator to solve problems	Use a calculator to solve problems	Use a calculator to solve problems	A rope is 12 metres long. How many lengths of 85cm can I cut from it?
Understanding Shape	Read and plot co-ordinates in the first quadrant	Read and plot co-ordinates in the first quadrant	Read and plot co-ordinates in the first quadrant	Why is t he point (4,1) not the same as(1,4)? Can you draw a diagram to explain. Tell me 4 coordinates that could be the vertices of a rectangle
Understanding Shape		Estimate, draw and measure acute and obtuse angles using an angle measurer or protractor to a suitable degree of accuracy; calculate angles in a straight line	Estimate, draw and measure acute and obtuse angles using an angle measurer or protractor to a suitable degree of accuracy; calculate angles in a straight line	Use 2 strips of paper. Show me an acute/obtuse/right angle. Show me an angle of 45º. Show me one of 180º.
Measuring	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy; convert larger to smaller units using decimals to one place	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy; convert larger to smaller units using decimals to one place	Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy; convert larger to smaller units using decimals to one place	What unit of measure would you use for: Weighing a tomato Measuring the amount of water in a teaspoon 5 second qs. How many cms are there in 1½ metres? How many grams are there in 11 kilograms?
Measuring	Interpret a reading that lies between 2 unnumbered divisions on a scale	Interpret a reading that lies between 2 unnumbered divisions on a scale	Interpret a reading that lies between 2 unnumbered divisions on a scale	Practical experiences could include: Making fruit cocktails using precise measurements of juice
Measuring	Draw and measure lines to the nearest mm; measure and calculate the perimeter of regular and irregular polygons; use the formula for the area of a rectangle to calculate the rectangle's area	Draw and measure lines to the nearest mm; measure and calculate the perimeter of regular and irregular polygons; use the formula for the area of a rectangle to calculate the rectangle's area	Draw and measure lines to the nearest mm; measure and calculate the perimeter of regular and irregular polygons; use the formula for the area of a rectangle to calculate the rectangle's area	A square has a perimeter of 64cm. How long is each side? What is the rectangle with the greatest area you can create if you have a perimeter of 24cm?

CD Strand Link	Year 5 Block E Unit 1	Year 5 Block E Unit 2	Year 5 Block E Unit 3	Key Questions for Year 5 have been taken mainly from Example Review questions and Using and Applying Opportunities
Counting and Understanding Number		Understand percentage as the number of parts in every 100 and express tenths and hundredths as percentages	Understand percentage as the number of parts in every 100 and express tenths and hundredths as percentages	What is 30 out of 100 as a percentage? What is 10% of £1, £10, £100?
Knowing and Using Number Facts		Use knowledge of place value and addition and subtraction of 2 digit numbers to derive sums and differences and doubles and halves of decimals		What is 2 x 0.7?
Knowing and Using Number Facts	Recall quickly multiplication facts to 10 x 10 and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts			15 second multiplication qs What is 300 divided by 15? What is 0.7 x 5?
Calculating	Extend mental methods for whole number calculations. Use understanding of place value to multiply and divide whole numbers by 10, 100 or 1000			5 second mental questions Divide 420 by 10 What is 54 multiplied by 10? Divide 31 by 10
Calculating	Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers		Refine and use efficient written methods to multiply HTU xU, TU xTU, U.t x U. Use efficient written methods to subtract whole numbers	Can I use a written method to work out how many hours there are in 1 year.
Calculating	Find fractions using division, and percentages of numbers and quantities	Find fractions using division, and percentages of numbers and quantities	Find fractions using division, and percentages of numbers and quantities	What fraction of 1 litre is 750ml? Use a calculator to calculate ¾ of 18 Three quarters of a number is 48. What is the number? Use a calculator to find 20% of £362
Calculating	Use a calculator to solve problems	Use a calculator to solve problems		A full box holds 180 pins. How many boxes can be filled from 100000 pins?

CD Strand Link	Year 6 Block A Unit 1	Year 6 Block A Unit 2	Year 6 Block A Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Counting and Understanding Number	Find the difference between a positive integer, or two negative integers, in context			The temperature in Rome is 4 degrees. The temperature in York is 7 degrees lower than that in Rome. Can you mark these temperatures on a numberline? The difference between 2 numbers is 18 and one of them is negative. What could the 2 numbers be?
Counting and Understanding Number	Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to 3 places, and position them on a numberline	Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to 3 places, and position them on a numberline	Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to 3 places, and position them on a numberline	What do you look for first when you order a set of decimal numbers? Which part of each number do you look at to help you? Which number lies exactly between 1.2 and 1.5?
Knowing and Using Number Facts	Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals	Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals		Explain how you would find half of 38.78
Calculating	Calculate mentally with integers and decimals	Calculate mentally with integers and decimals	Calculate mentally with integers and decimals	How do I change 4527p into pounds? Why do 6 x100 and 60 x 10 give the same answer?
Calculating		Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer	Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer	Work out 3275 – 1837 explaining every step that you write.
Calculating	Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Tom buys some trainers for £24.99 and a new CD for £10.75. He pays with a £50 note. How much change does he receive?

CD Strand Link	Year 6 Block B Unit 1	Year 6 Block B Unit 2	Year 6 Block B Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Knowing and Using Number Facts	Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals	Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals	Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals	How many different multiplication and division facts can you make using what you know about 72? What if you started with 7.2?
Calculating		Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Make decisions across the curriculum when it is and is not appropriate to use a calculator

CD Strand Link	Year 6 Block C Unit 1	Year 6 Block C Unit 2	Year 6 Block C Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Measuring		Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	I think of a number, subtract 17, and divide by 6. The answer is 20. What was my number?
Measuring	Select and use standard metric units of measure and convert between units using decimals to two places	Select and use standard metric units of measure and convert between units using decimals to two places	Select and use standard metric units of measure and convert between units using decimals to two places	I have 3 punnets of strawberries holding 1.4kg, 754g and 1040g. What mass of strawberries do I have altogether?
Measuring	Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments	Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments	Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments	See CD for illustrated examples
Handling Data		Describe and predict outcomes from data using the language of chance or likelihood.	Describe and predict outcomes from data using the language of chance or likelihood.	When we toss a coin I will win a token if it lands on heads, you will win one if it lands on tails. Is this fair? Explain why.
Handling Data	Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask	Solve problems by interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask	Solve problems by interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask	Draw conclusions from graphs within science settings e.g. deciding what is the most effective thermal insulator, comparing translucency of different materials using light sensors
Handling Data	Interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts	Interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts	Interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts	Use spreadsheet programs to create pie charts, setting qs for other children to answer What information do you need in order to be able to work out what the unlabelled divisions on this axis represent?
Handling Data	Describe and interpret results and solutions to problems using the mode and range	Describe and interpret results and solutions to problems using the mode and range	Describe and interpret results and solutions to problems using the mode and range	Write a different number in each of these boxes so that the range of the 3 numbers is 8. ▮ ▮ ▮ Find out the range of heights of children in Foundation Stage

CD Strand Link	Year 6 Block D Unit 1	Year 6 Block D Unit 2	Year 6 Block D Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Calculating	Calculate mentally with integers and decimals	Calculate mentally with integers and decimals	Calculate mentally with integers and decimals	Describe the connection between 6, 7 and 42 using the words multiple and factor. Multiples of 7 are all even. Is this statement true or false?
Calculating	Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer	Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer	Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer	Make up an example of a subtraction involving decimals that you would do in your head and one that you would do on paper. Explain why. Show your method for solving: What is the total mass of 235 screws each weighing 6 grams?
Calculating	Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Decide on the playground equipment to buy after a fund raising event.
Understanding Shape		Use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties		Three of the 4 vertices of a square are (3,10) (5,12) and (7,10) Work out the coordinates of the 4th vertex. What could the coordinates be for a square with sides that are not parallel or perpendicular to the axes?
Understanding Shape		Estimate angles, use a protractor to measure and draw them, on their own and in shapes; calculate angles in a triangle or around a point		What important tips would you give someone about using a protractor to measure angles? Describe what you would do to estimate the size of an angle. Would any annotation help?
Measuring	Select and use standard metric units of measure and convert between units using decimals to two places	Select and use standard metric units of measure and convert between units using decimals to two places	Select and use standard metric units of measure and convert between units using decimals to two places	Circle one amount to make this conversion correct. 0.37litres = 37ml 3700ml 3.7m 370ml Jo circles 37ml. What might she be doing wrong? How could you explain how to find the right answer?
Measuring	Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments		Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments	See CD for illustrated examples
Measuring	Calculate the perimeter and area of rectilinear shapes		Calculate the perimeter and area of rectilinear shapes	What is the approximate area of a rectangle 2.8cm x 6.1cm? Tell me a rule for working out the area of a rectangle. What is the rectangle with the greatest area you can create if you have a perimeter of 24cm?

CD Strand Link	Year 6 Block E Unit 1	Year 6 Block E Unit 2	Year 6 Block E Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Counting and Understanding Number		Find equivalent decimals and fractions	Find equivalent decimals and fractions	Circle the 2 fractions that have the same value ½ ⅓ ¼ 2/5 5/10 Tell me a fraction that is equivalent to 2/3 and has a denominator of 9. How did you work it out?
Knowing and Using Number Facts	Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals		Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals	The answer to a multiplication or division calculation is 0.56. What could the calculation be?
Calculating	Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer		Use efficient written methods to subtract integers and to multiply 2 digit and 3 digit integers by a 2 digit integer	Two numbers have a total of 1000 and a difference of 246. What are the 2 numbers? How would partitioning help you calculate 237 x 6?
Calculating	Find fractions and percentages of whole number quantities	Find fractions and percentages of whole number quantities	Find fractions and percentages of whole number quantities	When finding percentages of quantities what percentage do you usually start from? How does this percentage help you work out other percentages? Tell me 2 amounts where one is 25% of the other.
Calculating	Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Use a calculator to solve problems involving multi-step calculations	Angela buys 11 rolls of wallpaper. Eight of the rolls cost £4.80 each. The other rolls are sold half price. How much do the 11 rolls cost Angela? Write down the calculator key presses you made to solve that problem. Could you do it with fewer key presses? What information did you use?

I have put in an example questions for each objective but there are lots more questions, practical ideas and guidance on the Overcoming Barriers Disc.