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 3

problem, solution, calculate, calculation, answer, method, explain, reasoning, pattern, predict

place value, partition, digit, ones, tens, hundreds, one–digit number, two–digit number, three–digit number, compare, order, equals (=)

count on/back, add, subtract, multiply, times, divide, share, group, sum, total, difference, plus, minus

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

Year 4

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

place value, partition, thousands, digit, four-digit number, decimal point, decimal place, tenths, hundredths

positive, negative, above/below zero, compare, order, greater than (>), less than (<), equal to (=), round, estimate, approximately

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

calculator, display, key, enter, clear, constant

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

B – Securing number facts, understanding shapes

Year 3

problem, solution, calculate, calculation, operation, inverse, answer, method, explain, reasoning, pattern, predict, estimate, approximate

add, subtract, multiply, divide, group, sum, total, difference, plus, minus, double, halve, multiple, product

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

triangle, square, rectangle, quadrilateral, pentagon, hexagon, octagon, circle, semicircle, cube, cuboid, pyramid, cone, cylinder, prism, sphere, hemisphere, face, edge, vertex/vertices, surface, solid, side, straight, curved, diagram, right–angled

line of symmetry, mirror line, reflection, symmetrical, reflective symmetry

Year 4

problem, solution, calculator, calculate, calculation, equation, operation, inverse, answer, method, explain, predict, reason, reasoning, pattern, relationship, rule, sequence, sort, classify, property

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

3-D, three-dimensional, 2-D, two-dimensional, net, construct, regular, irregular, concave, convex, symmetrical, line of symmetry, vertex, vertices, face, edge, polygon, equilateral triangle, isosceles triangle, quadrilateral, rectangle, square, oblong, hexagon, heptagon, octagon

C – Handling Data and Measures

Year 3

problem, enquiry, solution, calculate, calculation, method, explain, reasoning, reason, predict, pattern, relationship, collect, organise, compare, sort, classify, represent, interpret, effect

information, data, survey, questionnaire, table, frequency table, block graph, bar chart, Carroll diagram, Venn diagram, axis/axes, horizontal axis, vertical axis, label, title, scale, interval, division

frequency, how often?, how frequently?, more/less, most/least, most/least popular, most/least frequent, greatest/least value, approximately, close, about the same as, ten times, hundred times

metric unit, standard unit, millimetre (mm), centimetre (cm), metre (m), kilogram (kg), gram (g), litre (l), millilitre (ml), degree Celsius °, ruler, tape measure, balance, scales, thermometer, capacity, weight, length, width, height, depth, temperature

time, timer, clock, second, minute, hour, day, week, month, year, before, after, interval, start time, end time, how long ago?, how long will it take to ...?, how long will it be to ...

Year 4

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

data, information, survey, questionnaire, graph, chart, table, diagram, horizontal axis, vertical axis, axes, label, title, scale, interval, pictogram, bar chart, tally chart, greatest/least value

metric unit, standard unit, millimetre (mm), centimetre (cm), metre (m), kilogram (kg), gram (g), litre (l), millilitre (ml)

D– Calculating, Measuring and Understanding Shape

Year 3

problem, solution, puzzle, pattern, methods, sign, operation, symbol, number sentence, equation, mental calculation, written calculation, informal method, jottings, diagrams, pictures, images

add, plus, sum, total, subtract, take away, minus, difference, double, halve, inverse, multiply, times, multiplied by, product, multiple, share, share equally, divide, divided by, divided into, left, left over, remainder

fraction, part, equal parts, one whole, one half, one third, one quarter, one fifth, one sixth, one tenth

grid, row, column, horizontal, vertical, diagonal, higher, lower

map, plan, compass point, north (N), south (S), east (E), west (W), turn, whole turn, half turn, quarter turn, clockwise, anticlockwise, right, left, up, down, ascend, descend, forwards, backwards, sideways, across

measuring scale, interval, division, unit, standard unit, approximately, close, about the same as, ten times, hundred times measure, estimate, unit, length, distance, weight, capacity, ruler, tape measure, balance, scales, measuring cylinder/jug, angle, right angle, set–square, units of measurement and abbreviations: metre (m), centimetre (cm), millimetre (mm), kilogram (kg), gram (g), litre (l), millilitre (ml)

time, clock, watch, hour (h), minute (min), second (s)

Year 4

problem, solution, answer, method, explain, predict, reason, reasoning, pattern, relationship,

calculation, equation, decimal, decimal point, decimal place, add, subtract, multiply, divide, order, compare, sum, total, difference, plus, minus, product, remainder, calculator, pound (£), penny/pence (p)

measure, estimate, metric unit, standard unit, length, distance, perimeter, area, mass, weight, capacity, ruler, measuring tape, balance, scales, measuring cylinder/jug, angle, right angle, set-square, units of measurement and abbreviations: kilometre (km), metre (m), centimetre (cm), millimetre (mm), kilogram (kg), gram (g), litre (l), millilitre (ml), square centimetre (cm^2), degree (°)

time, am, pm, digital, analogue, timetable, arrive, depart, hour (h), minute (min), second (s),
position, direction, north-east (NE), north-west (NW), south-west (SW), south-east (SE), clockwise, anticlockwise, horizontal, vertical, grid

E– Securing number Facts, Relationships and Calculating

Year 3

problem, solution, calculate, calculation, inverse, answer, method, explain, predict, estimate, reason, pattern, relationship, compare, order, information, test, list, table, diagram

place value, partition, ones, tens, hundreds, one-digit number, two-digit number, three-digit number

sign, equals (=), operation, symbol, number sentence, equation, mental calculation, written calculation, informal method, jottings, number line

count on, count back, add, plus, sum, total, subtract, take away, minus, difference, double, halve, inverse, multiply, times, multiplied by, product, multiple, share, share equally, divide, divided by, divided into, left, left over, remainder, round up, round down

fraction, part, equal parts, one whole, parts of a whole, number of parts, one half, one third, one quarter, one fifth, one sixth, one tenth, two thirds, three quarters, three fifths, unit fraction

Year 4

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

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

fraction, unit fraction, mixed number, numerator, denominator, equivalent

proportion, in every, for every, to every

Overcoming Barriers in Mathematics – Helping Children to move from Level 2 to Level 3

Ref: 00149-2008PCK-EN

CD Strand Link	Year 3 Block A Unit 1	Year 3 Block A Unit 2	Year 3 Block A Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Counting and Understanding Number		- Round 2 digit or 3 digit nos. to nearest 10/100 and give estimates for sums/differences	Round 2 digit or 3 digit nos. to nearest 10/100 and give estimates for sums/differences	What tips would you give to someone who is learning how to round numbers to the nearest 10 or 100? A number is rounded to the nearest 10. The answer is 720. how many different possible start nos. are there? What are they?
Knowing and Using Number Facts	- Derive and reacall all + and – facts for nos. to 20, sums and differences of multiples of 10 and no. pairs that total 100	- Derive and reacall all + and – facts for nos. to 20, sums and differences of multiples of 10 and no. pairs that total 100		Work out 4 + 7 + 16. What number facts did you use? How many ways can you use 6,8 and 14 in a number sentence? Join the numbers that total 100: 37 52 73 62 48 63
Knowing and Using Number Facts		Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000	Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000	How many 4s give the same answer as 8 threes? What is 10 added together 4 times? Write this as an addition then as a multiplication.
Calculating	Add/Subtract mentally combinations of 1 and 2 digit nos.	Add/Subtract mentally combinations of 1 and 2 digit nos.	Add/Subtract mentally combinations of 1 and 2 digit nos.	There were 24 biscuits in a box. There are now only 18 left. How many have been eaten? What is the number sentence? What is 14 -8? How can we check this with addition?
Calculating		Multiply 1 and 2 digit nos. by 10 or 100 and describe the effect		What is 8 x 10? What is 8 x 100? How do you know?
Calculating			Use practical and informal written methods to multiply and divide 2 digit nos., round remainders up and down depending on context	What is double 37? Did you record anything to help you find your answer?

CD Strand Link	Year 3 Block B Unit 1	Year 3 Block B Unit 2	Year 3 Block B Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Counting and Understanding Number		Read/write proper fractions interpreting denominator as the parts of a whole and the numerator as the no. of parts. Identify and estimate fractions of shapes. Use diagrams to compare fractions and establish equivalents	Read/write proper fractions interpreting denominator as the parts of a whole and the numerator as the no. of parts. Identify and estimate fractions of shapes. Use diagrams to compare fractions and establish equivalents	Draw a rectangle with 3 unequal sections. I say it is divided into thirds because it is divided into 3 parts. Am I right? Explain your answer.
Knowing and Using Number Facts	- Derive and reacall all + and – facts for nos. to 20, sums and differences of multiples of 10 and no. pairs that total 100	- Derive and reacall all + and – facts for nos. to 20, sums and differences of multiples of 10 and no. pairs that total 100	- Derive and reacall all + and – facts for nos. to 20, sums and differences of multiples of 10 and no. pairs that total 100	Word Problems – Sam has saved £7 and earns another £5. How much more does he need to buy trainers that cost £20? How much longer is a metre stick than a 30cm ruler?
Knowing and Using Number Facts	Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000	Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000	Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000	If I have 30p in 5p coins, how many coins do I have?
Understanding Shape	Relate 2 d shapes and 3d solids to drawings of them – describe, classify, draw and make the shapes	Relate 2 d shapes and 3d solids to drawings of them – describe, classify, draw and make the shapes	Relate 2 d shapes and 3d solids to drawings of them – describe, classify, draw and make the shapes	Put some 2d shapes out – can you identify and name the shapes that have no right angles? Shapes that have all equal sides? Pick one shape and describe it to a friend. Can your friend identify your shape? Use shapes on an ICT package to create a symmetrical logo and describe how you made it.

CD Strand Link	Year 3 Block C Unit 1	Year 3 Block C Unit 2	Year 3 Block C Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Measuring	Know the relationship between kms and ms, ms and cms, kgs and gs, ls and mls, choose and use appropriate units to estimate, measure and record measurements	Know the relationship between kms and ms, ms and cms, kgs and gs, ls and mls, choose and use appropriate units to estimate, measure and record measurements	Know the relationship between kms and ms, ms and cms, kgs and gs, ls and mls, choose and use appropriate units to estimate, measure and record measurements	Can you fill in the gaps? 100cm = □ m , □ cm= ½ m, □g = 2kg If you had a 4 litre container of milk, how many mls would that be?
Measuring	Read to the nearest division and half division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy	Read to the nearest division and half division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy	Read to the nearest division and half division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy	Weigh a set of parcels to the nearest 100g. work out postage costs if each 100g costs 20p Sort a set of containers of varying sizes and shapes by estimating their capacity, then measure to see whether the order was correct.
Measuring		Read the time on a 12 hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval		How many minutes in an hour? How many in half an hour? What do we usually say instead of 15 past 9?
Handling Data	Answer a qs by collecting, organisisng and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart	Answer a qs by collecting, organisisng and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart	Answer a qs by collecting, organisisng and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart	John thinks of 2 numbers with a total of 15. List all possible pairs of numbers. John's numbers multiply to give 54. What were the numbers?

CD Strand Link	Year 3 Block D Unit 1	Year 3 Block D Unit 2	Year 3 Block D Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Calculating	Add/Subtract mentally combinations of 1 and 2 digit nos.	Add/Subtract mentally combinations of 1 and 2 digit nos.		Nisha and Charlie play skittles. Nisha scores 38. Charlie scores 50. How much more does Charlie score than Nisha? I think of a number, double it and add 11. I get the answer 17. What was my number?
Calculating		Use practical and informal written methods to multiply and divide 2 digit nos., round remainders up and down depending on context	Use practical and informal written methods to multiply and divide 2 digit nos., round remainders up and down depending on context	Find 13 lots of 3. Use a number line to show this calculation. Jot down the facts you could use to work out 4 x 12.How many 2p coins would you need to make 32p?
Caclulating			Understand that division is the inverse of multiplication and vica versa, use this to derive and record related x and division number sequences	I cut two 30cm pieces from 1m of ribbon. How much ribbon is left? Wayne starts to solve this problem by working out 30 x 2 = 60. Which part of the problem does this solve? What does he need to do next?
Calculating	Find unit fractions of numbers and quantities	Find unit fractions of numbers and quantities		What calculation would you do to find 1/5 of 20? How could you find one quarter of a piece of string?
Measuring	Know the relationship between kms and ms, ms and cms, kgs and gs, ls and mls, choose and use appropriate units to estimate, measure and record measurements	Know the relationship between kms and ms, ms and cms, kgs and gs, ls and mls, choose and use appropriate units to estimate, measure and record measurements		Would you expect: a handspan to be 5,15 or 50cm wide? A new born baby to weigh 3kg or 30kg? A teapot to hold 1 litre, 10 litres or 100 litres? Make towers of bricks a given size e.g. half a metre
Measuring	Read to the nearest division and half division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy		Read to the nearest division and half division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy	Can you measure and draw lines that are 8.5cm, 13½ cm and 19.5cm long?
Measuring	Read the time on a 12 hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval		Read the time on a 12 hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval	Keep a diary of events at home

CD Strand Link	Year 3 Block E Unit 1	Year 3 Block E Unit 2	Year 3 Block E Unit 3	Key Questions for Year 3 have been taken mainly from Example Review questions and Using and Applying Opportunities
Counting and Understanding Number		Read/write proper fractions interpreting denominator as the parts of a whole and the numerator as the no. of parts. Identify and estimate fractions of shapes. Use diagrams to compare fractions and establish equivalents	Read/write proper fractions interpreting denominator as the parts of a whole and the numerator as the no. of parts. Identify and estimate fractions of shapes. Use diagrams to compare fractions and establish equivalents	Suggest a fraction that is bigger than ½. How do you know? Take a sheet of paper. Fold it in half, in half again and in half again. Open up the sheet and colour in 3 sections. What fraction of the paper have you shaded?
Knowing and Using Number Facts	- Derive and recall all + and – facts for nos. to 20, sums and differences of multiples of 10 and no. pairs that total 100			What is 13 -8? What other subtractions using numbers up to 20 give an answer of 5?
Knowing and Using Number Facts	Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000		Derive and recall x facts for 2,3,4,5,6 and 10 times tables and corresponding division facts, recognise multiples of 2, 5 or 10 up to 1000	Find some division calculations that have the answer 4. How did you do this?
Calculating		Multiply 1 and 2 digit nos. by 10 or 100 and describe the effect		There are 23 ten pence pieces in my money bank. How much does this make? How many pennies would have the same value as 12 10p coins? How many pennies would have the same value as 12 £1 coins? How many 10p coins would be worth the same as 3 £1 coins?
Calculating	Use practical and informal written methods to multiply and divide 2 digit nos., round remainders up and down depending on context	Use practical and informal written methods to multiply and divide 2 digit nos., round remainders up and down depending on context	Use practical and informal written methods to multiply and divide 2 digit nos., round remainders up and down depending on context	An exercise book is 15mm thick. How thick will a pile of 5 exercise books be? How do you know? It takes 12 minutes to bake 1 batch of cookies. How long does it take to bake 4 batches? How many 3p lollies can you buy with 45p. Record your method.
Calculating			Understand that division is the inverse of multiplication and vica versa, use this to derive and record related x and division number sequences	
Calculating	Find unit fractions of numbers and quantities	Find unit fractions of numbers and quantities	Find unit fractions of numbers and quantities	How many minutes are there in one quarter of an hour? What calculation would you use to work this out?

CD Strand Link	Year 4 Block A Unit 1	Year 4 Block A Unit 2	Year 4 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	Partition, round and order 4 digit whole nos; use positive and negative nos in context and position them on a numberline; state inequalities using the symbols < and >		Partition, round and order 4 digit whole nos; use positive and negative nos in context and position them on a numberline; state inequalities using the symbols < and >	When ordering a set of nos. what do you look for first? Write down 5 nos. that lie between 750 and 850. Position them on a numberline. Say the multiples of 100 between 0 and 1000. Which of these is 753 closest to? How do you know?
Counting and Understanding Number		Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position 1 place and 2 place decimals on a numberline	Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position 1 place and 2 place decimals on a numberline	What does the digit 3 in 4.3 represent? Can you write a no. that has one ten and six tenths? Which is longer 5.05m or 550cm? Which is greater 239p or £2.93? Why?
Knowing and Using Number Facts	.Use knowledge of + and – facts and place value to derive sums and differences of pairs of multiples of 10,100 or 1000			Which addition fact could you use to answer 12 – 4? Rick says that 34 + 76 = 100. Is he right? What mistake has he made? 40 + 60 = 100 43 + □ = 100. Will the number in the box be bigger or smaller than 60? Explain how you know.
Knowing and Using Number Facts	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	How many sides do 6 triangles have altogether? What multiplication fact do you use to answer this problem?
Calculating	Add/Subtract mentally pairs of 2 digit whole nos	Add/Subtract mentally pairs of 2 digit whole nos	Add/Subtract mentally pairs of 2 digit whole nos	Sam says the answer to 75 – 28 is 53. Kit says it is 47. Who is right? How can you check? What mistakes do you think were made? Explain how you would find the difference between 47 and 63. 11 is 3 more than 8. Make a sentence using the same numbers and the words ‘ less than’
Calculating	Multiply and divide nos to 1000 by 10 and then 100 understanding the effect; relate to scaling up or down	Multiply and divide nos to 1000 by 10 and then 100 understanding the effect; relate to scaling up or down		Josh says that 31 multiplied by 10 is 301. Is he right? Explain how you know. What operation would you key into the calculator to turn 74 into 740?
Calculating		Develop and use written methods to record, support and explain x and division of 2 digit nos by a 1 digit no. including division with remainders	Develop and use written methods to record, support and explain x and division of 2 digit nos by a 1 digit no. including division with remainders	How many 19p pencils can I buy with 60p. How much change will I get? Record your workings. When a number is divided by 5 it gives a remainder of 2. Tell me 3 different numbers between 10 and 30 that it could be.
Calculating	Use a calculator to carry out 1 step and 2 step calculations involving all 4 operations; recognise negative nos. in the display, correct mistaken entries and interpret the display correctly in the context of money		Use a calculator to carry out 1 step and 2 step calculations involving all 4 operations; recognise negative nos. in the display, correct mistaken entries and interpret the display correctly in the context of money	A notebook costs 40p and ruler costs 25p. What word problems could I ask based on this information? Can you write down the calculation number sentence to match each of your word problems?

CD Strand Link	Year 4 Block B Unit 1	Year 4 Block B Unit 2	Year 4 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 + and – facts and place value to derive sums and differences of pairs of multiples of 10,100 or 1000	.Use knowledge of + and – facts and place value to derive sums and differences of pairs of multiples of 10,100 or 1000	Write one of these numbers into each box to make a correct sum. 14 7 9 16 5 □ = □ +□ I use 45cm of a 1m roll of tape. How much is left?
Knowing and Using Number Facts	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	How many multiplication calculations can you write with the answer of 24? How many 5s make the same number as 3 tens? The answer to 4 x O lies between 25 and 35. What numbers could go in the circle?
Understanding Shape	Draw polygons and classify them by identifying their properties, including their line of symmetry Visualise 3d objects from 2d drawings; make nets of common solid shapes	Draw polygons and classify them by identifying their properties, including their line of symmetry Visualise 3d objects from 2d drawings; make nets of common solid shapes	Draw polygons and classify them by identifying their properties, including their line of symmetry Visualise 3d objects from 2d drawings; make nets of common solid shapes	How many different shapes can you make by placing 2 identical right-angled triangles edge to edge? How do you know you have found them all? Describe each shape. To draw a picture of a cube, would you use straight or curved lines? What about a cylinder? Sort 3d shapes into 2 sets. Explain how you sorted them.

CD Strand Link	Year 4 Block C Unit 1	Year 4 Block C Unit 2	Year 4 Block C Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Measuring	Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements	Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements	Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements	Sort these measurements by size 1000m 2km 3cm ½metre 40cm How did you know what order they came in? were there any that were difficult to sort out? Do the same with mass and capacity.
Measuring	Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit	Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit	Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit	What tips would you give someone who is learning how to read a measurement using a weighing scale/ruler/measuring jug? How do you know what the unlabelled marks mean? How many different ways can you read and write the time that is 15 mins before 1 o'clock?
Handling Data	Answer a qs by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate	Answer a qs by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate	Answer a qs by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate	What lists/tables can you see in the classroom? Explain how and why you might use them.

CD Strand Link	Year 4 Block D Unit 1	Year 4 Block D Unit 2	Year 4 Block D Unit 3	Key Questions for Year 4 have been taken mainly from Using and Applying Opportunities and Confirming Learning
Counting and Understanding Number		Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position 1 place and 2 place decimals on a numberline	Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position 1 place and 2 place decimals on a numberline	How would you enter £1.10 on a calculator? Write a no. that is bigger than 7 but smaller than 8. Can you explain what makes it bigger than 7? Can you explain what 3 represents in £3.50, 36.5m, £1.53, 263.5cm £0.35?
Knowing and Using Number Facts		Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple		A theatre ticket costs £6. How much will 4 tickets cost? How many lengths of 6m can you cut from a 48m rope? Write the number fact that represents this. How did you work it out? Ross saves 20p a day for a week. How much money has he saved?
Calculating	Add/Subtract mentally pairs of 2 digit whole nos			One sunflower is now 38cm high. Another is 83cm high. What is the difference between the height of the sunflowers? Ben starts at 52 and counts back in 9s. find a number between 10 and 20 that he will land on. 17 + 47 = 64 Give 3 other calculations that use the same numbers.
Calculating		Develop and use written methods to record, support and explain x and division of 2 digit nos by a 1 digit no. including division with remainders		Work out the missing number □ x 2 =56 How does knowing 10 x 6 = 60 help you work out the answer to 72
Measuring	Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements	Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements	Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of kilo, centi and milli and, where appropriate, use decimal notation to record measurements	What would be heavier, ½ kilogram or 50g? Can you tell me another way to say 500ml, 2kg,¼ metre?
Measuring	Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit	Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit	Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit	Is it easier to measure a line accurately using a ruler divided into cm of half cm? explain your answer.
Measuring	Read time to the nearest minute; use am,pm and 12 hour clock notation; choose units of time to measure time intervals; calculate time intervals from clocks and timetables		Read time to the nearest minute; use am,pm and 12 hour clock notation; choose units of time to measure time intervals; calculate time intervals from clocks and timetables	Why is it useful to have 2 hands on a clock face? What do we usually say instead of '50 minutes past 12'? What instructions would you give someone for displaying on an analogue clock a time you have read on a digital display? Children need to eat their lunch between 12 o'clock and 1:30pm. Can you tell me 3 possible pairs of start and end times?

CD Strand Link	Year 4 Block E Unit 1	Year 4 Block E Unit 2	Year 4 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	Use diagrams to identify equivalent fractions; interpret mixed numbers and position them on a numberline	Use diagrams to identify equivalent fractions; interpret mixed numbers and position them on a numberline	Use diagrams to identify equivalent fractions; interpret mixed numbers and position them on a numberline	Which would you rather have, ¼ of a bar of chocolate or ⅛ of a bar of chocolate? Why? Draw a sketch to explain your answer. Draw a numberline 0 to 1 with 4 divisions. Draw an arrow pointing to division 4 and ask what fraction the arrow is pointing to.
Knowing and Using Number Facts	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Derive and recall x facts up to 10 x 10, the corresponding division facts and multiples of numbers to 10 up to the 10th multiple	Find ¼ of £28 A gardener plants 3 rows of cabbages. Each row contains 8 cabbages. How many cabbages are there altogether? How many pairs can be made from 26 socks? How do you know?
Calculating			Develop and use written methods to record, support and explain x and division of 2 digit nos by a 1 digit no. including division with remainders	How could partitioning help you to calculate 27 x 6? Give me an example of a 2 digit by 1 digit multiplication you could do mentally. Give me an example of a multiplication where it would help you to jot something down. Jack says that 71 divided by 4 = 17 remainder 5. Can he be correct?
Calculating	Find fractions of numbers, quantities or shapes	Find fractions of numbers, quantities or shapes	Find fractions of numbers, quantities or shapes	18 tomatoes are shared equally onto 6 plates. What fraction of the tomatoes is on each plate? How many tomatoes is this? There are 24 stickers on a roll.¼ of them are red.⅓ are blue. The rest are yellow. How many stickers are yellow? There are 20 chocolates in a box. Would you rather have ¼ or 1/5 of the chocolates? Explain your answer. What is 1/10 of : 30 litres, 200g, 1 metre, £1?

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.