Inspire Maths 4 Medium-term Plan

Unit 1: Whole Numbers (1)

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Numbers to 100 000** Pupils will be able to: • recognise that 10 thousands = 1 ten thousand • translate 5-digit numbers from: (i) numerals and words to place value models (ii) numerals to words (iii) words to numerals • recognise that 10 ten thousands = 1 hundred thousand • state the place and value of each digit in a 5-digit number • write a number as the sum of the values of each digit in the number	• Comparing • Sequencing • Identifying relationships	• Pupil Textbook 4A, pp 8 to 14 • Practice Book 4A, pp 7 to 10 • Teacher's Guide 4A, pp 4 to 10
1–2	**(2) Comparing numbers within 100 000** Pupils will be able to: • compare and order numbers up to 100 000 • state how much more or less one number is than another • find the pattern in a number sequence	• Comparing • Sequencing • Identifying relationships	• Pupil Textbook 4A, pp 15 to 18 • Practice Book 4A, pp 11 to 12 • Teacher's Guide 4A, pp 11 to 14
2	*Let's Explore!* The *Let's Explore!* task enables pupils to explore the patterns in sequences of numbers given in a table. *Maths Journal* This *Maths Journal* enables pupils to: • express their understanding of how numbers are ordered • explain the process of comparing two numbers • recognise that a sequence of numbers can have more than one pattern • express their understanding of numbers by describing the number in terms of its digits	• Comparing	• Pupil Textbook 4A, pp 18 to 19 • Practice Book 4A, pp 13 to 14 • Teacher's Guide 4A, pp 14 to 15
2	*Put On Your Thinking Caps!* Pupils will be able to: • write the number by looking at the patterns provided and applying place value concepts • mark numbers on a number line between: (i) 10 000 and 20 000 (ii) 16 500 and 16 600	• Spatial visualisation • Comparing	• Pupil Textbook 4A, pp 20 to 21 • Practice Book 4A, pp 15 to 16 • Teacher's Guide 4A, pp 16 to 17

Unit 2: Whole Numbers (2)

Week	Learning Objectives	Thinking Skills	Resources
2	**(1) Rounding numbers to the nearest ten** Pupils will be able to: • use the number line representation to round numbers to the nearest ten • use the symbol ≈ to show a number has been approximated or rounded to the nearest ten • make a list of whole numbers that can round to a number	• Comparing • Applying ordering skills and place value concepts	• Pupil Textbook 4A, pp 22 to 26 • Practice Book 4A, pp 17 to 20 • Teacher's Guide 4A, pp 28 to 32
2	**(2) Rounding numbers to the nearest hundred** Pupils will be able to: • use the number line representation to round numbers to the nearest hundred • use the symbol ≈ to show a number has been approximated or rounded to the nearest hundred • make a list of numbers that can round to a number	• Comparing • Applying ordering skills and place value concepts	• Pupil Textbook 4A, pp 27 to 31 • Practice Book 4A, pp 21 to 24 • Teacher's Guide 4A, pp 33 to 37
2–3	**(3) Estimation** Pupils will be able to: • use the 'rounding' strategy to estimate the answers in calculations involving addition, subtraction, multiplication and division • estimate to check the reasonableness of their answers by rounding the numbers in calculations involving addition, subtraction, multiplication and division	• Comparing • Applying rounding skills • Mental calculation	• Pupil Textbook 4A, pp 32 to 35 • Practice Book 4A, pp 25 to 26 • Teacher's Guide 4A, pp 38 to 41

3	**(4) Factors** Pupils will be able to: • state that if $a \div b = c$, where a, b and c are whole numbers, then b is a factor of a • determine if a 1-digit whole number is a factor of another whole number by division • recognise that if $c = a \times b$, then a and b are factors of c, where a, b and c are whole numbers • list the factors of a whole number (up to 100) • identify the common factors of two whole numbers • determine if a 1-digit number is a common factor of two numbers *Let's Explore!* Pupils will be able to: • discover that even numbers are divisible by 2 • discover that numbers with 0 or 5 in the ones place are divisible by 5 *Maths Journal* Pupils will be able to show their understanding of the concept of factors by explaining how to find the common factors of two numbers.	• Identifying relationships • Applying multiplication and division facts	• Pupil Textbook 4A, pp 36 to 40 • Practice Book 4A, pp 27 to 28 • Teacher's Guide 4A, pp 42 to 46
3–4	**(5) Multiples** Pupils will be able to: • state that a multiple of a whole number is a product of this whole number and another whole number • determine if a whole number is a multiple of another 1-digit whole number by division • list the first 12 multiples of a given 1-digit whole number • identify the common multiples of two or three 1-digit whole numbers • relate the concepts of 'factors' and 'multiples'	• Identifying relationships • Applying multiplication and division facts	• Pupil Textbook 4A, pp 41 to 43 • Practice Book 4A, pp 29 to 31 • Teacher's Guide 4A, pp 47 to 49
4	*Put On Your Thinking Caps!* Pupils will be able to use the strategies for eliminating options and make a list/table to solve these problems.	Heuristics for problem solving: • Eliminating options • Making a systematic list	• Pupil Textbook 4A, p 44 • Practice Book 4A, pp 32 to 34 • Teacher's Guide 4A, p 50
	Review 1		• Practice Book 4A, pp 35 to 38
Summative assessment opportunity			
Assessment Book 4, Test 1, pp 1 to 5			

Unit 3: Whole Numbers (3)

Week	Learning Objectives	Thinking Skills	Resources
4	**(1) Multiplication by a 1-digit number** Pupils will be able to: • use the procedures in multiplication to multiply whole numbers (up to 4 digits) by a 1-digit number with or without regrouping • use an alternative method to multiply whole numbers (up to 4 digits) by a 1-digit number • estimate the product of a 4-digit whole number and a 1-digit whole number to determine whether the answer is reasonable *Let's Explore!* Pupils will be able to show their understanding of multiplication through the discussion of mistakes in the calculations shown.	• Applying multiplication facts, place value concepts and rounding skills	• Pupil Textbook 4A, pp 45 to 49 • Practice Book 4A, pp 39 to 42 • Teacher's Guide 4A, pp 67 to 71
5	**(2) Multiplication by a 2-digit number** Pupils will be able to: • use the procedures in multiplication to multiply a whole number (up to 3 digits) by 10 or tens using two different methods with or without regrouping • multiply a whole number (2 or 3 digits) by another 2-digit whole number with or without regrouping • estimate the product of a 2- or 3-digit whole number and a 2-digit whole number to determine whether the answer is reasonable *Let's Explore!* Pupils will be able to show their understanding of multiplication through the discussion of mistakes in the calculations shown. *Maths Journal* Pupils will be able to show their understanding of the multiplication procedure by listing the steps to follow.	• Applying multiplication facts, place value concepts and rounding skills	• Pupil Textbook 4A, pp 50 to 56 • Practice Book 4A, pp 43 to 46 • Teacher's Guide 4A, pp 72 to 78

5	**(3) Division by a 1-digit number** Pupils will be able to: • use the procedures in division to divide a whole number (up to 4 digits) by a 1-digit number with or without regrouping and without remainder • use the procedures in division to divide a whole number (up to 4 digits) by a 1-digit number with or without regrouping and with remainder • estimate the quotient when a whole number (up to 4 digits) is divided by a 1-digit whole number to determine whether the answer is reasonable *Let's Explore!* Pupils will be able to see how estimation can be used to determine whether their answers are reasonable.	• Applying division facts, place value concepts and rounding skills	• Pupil Textbook 4A, pp 57 to 62 • Practice Book 4A, pp 47 to 50 • Teacher's Guide 4A, pp 79 to 84
6	**(4) Word problems** Pupils will be able to: • solve up to three-step whole number word problems involving the four operations • use model drawing and the unitary method to solve word problems • use part-whole, comparison, adding on or taking away model drawings to solve word problems *Let's Explore!* Pupils will be able to look for a pattern to solve the problem and to predict future outcomes based on the pattern.	• Translating verbal statements to models • Identifying relationships Heuristic for problem solving: • Looking for a pattern	• Pupil Textbook 4A, pp 63 to 69 • Practice Book 4A, pp 51 to 54 • Teacher's Guide 4A, pp 85 to 91
6	*Put On Your Thinking Caps!* Pupils will be able to: • apply estimation skills • use the strategy of drawing a model/diagram to solve the problems	Heuristics for problem solving: • Draw a model • Use a diagram	• Pupil Textbook 4A, p 70 • Practice Book 4A, pp 55 to 58 • Teacher's Guide 4A, p 92

Unit 4: Tables and Line Graphs

Week	Learning Objectives	Thinking Skills	Resources
6	**(1) Presenting and interpreting data in a table** Pupils will be able to: • collect data and enter the data into a table • use tallies to collect data using a table • read and interpret simple data presented in a table involving terms such as 'more than', 'less than', 'the most' and 'the least', etc. • transfer data from a graph to a table	• Interpreting • Comparing • Translating a graph into a table	• Pupil Textbook 4A, pp 71 to 75 • Practice Book 4A, pp 59 to 62 • Teacher's Guide 4A, pp 107 to 111
7	**(2) More tables** Pupils will be able to: • read and interpret more complex data presented in a table • complete a table and interpret the data • collect data and present the data in a table	• Interpreting • Comparing	• Pupil Textbook 4A, pp 76 to 78 • Practice Book 4A, pp 63 to 64 • Teacher's Guide 4A, pp 112 to 114
7–8	**(3) Line graphs** Pupils will be able to: • use the strategy to read and interpret line graphs • transfer data from a table to a line graph • read and interpret line graphs with different scales • read the values on the *y*-axis and *x*-axis given a point on the graph • complete a table by reading the graph • recognise the relationship between two values *Maths Journal* Pupils will be able to demonstrate their understanding of or difficulty with the concepts, skills and processes they have learnt in this topic.	• Identifying relationships • Comparing	• Pupil Textbook 4A, pp 79 to 85 • Practice Book 4A, pp 65 to 68 • Teacher's Guide 4A, pp 115 to 121
8	*Put on Your Thinking Caps!* Pupils will be able to read and compare two different tables simultaneously.	• Comparing • Identifying relationships	• Pupil Textbook 4A, p 86 • Practice Book 4A, pp 69 to 70 • Teacher's Guide 4A, p 122
	Review 2		• Practice Book 4A, pp 71 to 78

Summative assessment opportunities
Assessment Book 4, Test 2, pp 7 to 14 For extension, Assessment Book 4, Challenging Problems 1, pp 15 to 16 Assessment Book 4, Check-up 1, pp 17 to 26

Unit 5: Fractions

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Mixed numbers** Pupils will be able to: • express the sum of a whole number and a proper fraction as a mixed number • interpret region models of mixed numbers • read and interpret mixed numbers on a number line • draw region models of mixed numbers • mark mixed numbers on a number line • reduce the fractional part of a mixed number to its simplest form	• Translating pictorial representations of mixed numbers to symbolic representations and vice versa	• Pupil Textbook 4A, pp 87 to 91 • Practice Book 4A, pp 79 to 84 • Teacher's Guide 4A, pp 137 to 141
1	**(2) Improper fractions** Pupils will be able to: • interpret an improper fraction as an extension of a proper fraction • express region models of a mixed number as an improper fraction • read and interpret improper fractions on a number line • draw region models of improper fractions • mark improper fractions on a number line • reduce improper fractions to their simplest form	• Translating pictorial representations of improper fractions to symbolic representations and vice versa	• Pupil Textbook 4A, pp 92 to 95 • Practice Book 4A, pp 85 to 88 • Teacher's Guide 4A, pp 142 to 145
1–2	**(3) Conversion of fractions** Pupils will be able to: • convert an improper fraction to a mixed number by separating it into a whole and part of a whole • convert an improper fraction to a mixed number by division • convert a mixed number to an improper fraction by multiplication	• Relating improper fractions to mixed numbers	• Pupil Textbook 4A, pp 96 to 100 • Practice Book 4A, pp 89 to 92 • Teacher's Guide 4A, pp 146 to 150
2	**(4) Adding and subtracting fractions** Pupils will be able to: • add two or three related fractions • subtract two related fractions • subtract a fraction from a whole number • find equivalent fractions of a given fraction	• Translating verbal statements to models and fraction operations	• Pupil Textbook 4A, pp 101 to 103 • Practice Book 4A, pp 93 to 94 • Teacher's Guide 4A, pp 151 to 153

2–3	**(5) Fractions of a set** Pupils will be able to: • interpret a fraction as part of a set (e.g. $^3/_4$ is 3 apples out of 4 apples or 3 groups of *y* apples out of 4 groups of *y* apples) • calculate the fraction of a set of items using the unitary method • calculate the fraction of a set of items using multiplication and division • interpret a bar model of a fraction as a set divided into equal subsets	• Visualising a subset or equal subsets of a set as part of the whole set • Translating pictorial representations of fractions of a set to symbolic representations	• Pupil Textbook 4A, pp 104 to 107 • Practice Book 4A, pp 95 to 98 • Teacher's Guide 4A, pp 154 to 157
3	**(6) Word problems** Pupils will be able to: • solve up to two-step word problems on addition and subtraction of fractions • solve up to two-step word problems on fractions of a set • use models to represent problem situations and solve the problems *Maths Journal* Pupils will be able to demonstrate their understanding of or difficulty with the concepts, skills and processes they have learnt in this topic and describe how fractions are used in daily life.	• Translating verbal statements to models and fraction operations • Visualising part-whole relationships in fraction situations	• Pupil Textbook 4A, pp 108 to 116 • Practice Book 4A, pp 99 to 105 • Teacher's Guide 4A, pp 158 to 166
3	*Put On Your Thinking Caps!* Pupils will be able to relate and interpret before/after models of a situation.	• Translating • Comparing	• Pupil Textbook 4A, p 117 • Practice Book 4A, pp 106 to 108 • Teacher's Guide 4A, p 167

Unit 6: Angles

Week	Learning Objectives	Thinking Skills	Resources
4	**(1) Understanding angles** *Naming angles* Pupils will be able to: • state that an angle is made when two straight lines meet at a point (or vertex) • use three ways of naming an angle as ∠ABC, ∠CBA or ∠*x* *Measuring angles* Pupils will be able to: • state that an angle is measured in degrees (°) • measure angles (up to 180°) with a protractor • use the outer scale and the inner scale of the protractor discriminately • compare angles and state whether an angle is greater or smaller than a right angle • estimate the size of an angle • estimate if an angle is a right angle, smaller than a right angle or greater than a right angle	• Comparing • Spatial visualisation	• Pupil Textbook 4A, pp 118 to 121 • Practice Book 4A, pp 109 to 112 • Teacher's Guide 4A, pp 186 to 189
4	**(2) Drawing angles to 180°** Pupils will be able to: • draw an angle (up to 180°) using a protractor and ruler • draw an angle at a point on a line in two ways using a protractor and ruler	• Spatial visualisation	• Pupil Textbook 4A, pp 122 to 124 • Practice Book 4A, pp 113 to 116 • Teacher's Guide 4A, pp 190 to 192
4	**(3) Turns and right angles** Pupils will be able to: • associate a $^1/_4$ turn with 90° or 1 right angle • associate a $^1/_2$ turn with 180° or 2 right angles • associate a $^3/_4$ turn with 270° or 3 right angles • associate a complete turn with 360° or 4 right angles	• Spatial visualisation • Comparing • Identifying relationships	• Pupil Textbook 4A, pp 125 to 126 • Practice Book 4A, pp 117 to 118 • Teacher's Guide 4A, pp 193 to 194
5	**(4) 8-point compass** Pupils will be able to: • name these 8 directions on the compass: north (N), south (S), east (E), west (W), north-east (NE), north-west (NW), south-east (SE), south-west (SW) • state that the angle between any two adjacent directions above is 45° • recognise the direction of a turn as clockwise or anticlockwise	• Spatial visualisation • Comparing • Identifying relationships	• Pupil Textbook 4A, pp 127 to 131 • Practice Book 4A, pp 119 to 120 • Teacher's Guide 4A, pp 195 to 199

	• state the direction of a place, person or object with respect to a given north • state the direction faced after turning through an angle from a given direction • locate or name the direction of a place in relationship to a person or object • locate a point or name the position of the point on a square grid in relationship to another point		
5	*Put On Your Thinking Caps!* Pupils will be able to: • interpret the result of two turns made one after another • work backwards by reversing the directions of the steps taken to solve the problem	• Spatial visualisation • Comparing • Induction Heuristic for problem solving: • Work backwards	• Pupil Textbook 4A, p 132 • Practice Book 4A, pp 121 to 124 • Teacher's Guide 4A, p 200
	Review 3		• Practice Book 4A, pp 125 to 132
Summative assessment opportunity			
Assessment Book 4, Test 3, pp 27 to 33			

Unit 7: Perpendicular and Parallel Lines

Week	Learning Objectives	Thinking Skills	Resources
5	**(1) Drawing perpendicular lines** Pupils will be able to: • draw perpendicular lines using a ruler and a set-square • draw a perpendicular line that passes through a given point outside the line using a ruler and a set-square • draw lines perpendicular to a given line on grid lines without using a set-square	• Spatial visualisation • Identifying relationships	• Pupil Textbook 4A, pp 133 to 135 • Practice Book 4A, pp 133 to 134 • Teacher's Guide 4A, pp 215 to 217
6	**(2) Drawing parallel lines** Pupils will be able to: • draw parallel lines using a set-square and a ruler • draw a parallel line that passes through a given point outside the line using a ruler and a set-square	• Spatial visualisation • Identifying relationships	• Pupil Textbook 4A, pp 136 to 138 • Practice Book 4A, pp 135 to 136 • Teacher's Guide 4A, pp 218 to 220
6	**(3) Horizontal and vertical lines** Pupils will be able to: • identify horizontal and vertical lines • state that a vertical line is perpendicular to a horizontal line it meets	• Spatial visualisation • Identifying relationships	• Pupil Textbook 4A, pp 139 to 140 • Practice Book 4A, pp 137 to 138 • Teacher's Guide 4A, pp 221 to 222
6	*Put On Your Thinking Caps!* Pupils will be able to relate the drawing of perpendicular lines to the properties of a rectangle.	• Spatial visualisation Heuristic for problem solving: • Act it out	• Pupil Textbook 4A, p 141 • Practice Book 4A, pp 139 to 140 • Teacher's Guide 4A, p 223

Unit 8: Squares and Rectangles

Week	Learning Objectives	Thinking Skills	Resources
7	**(1) Squares and rectangles** Pupils will be able to: • state that a square has four equal sides and four right angles • state that the opposite sides of a square are parallel • state that the opposite sides of a rectangle are equal and parallel • state that a rectangle has four right angles • differentiate a square from a rectangle and vice versa • solve simple geometrical problems using properties of squares and rectangles *Let's Explore!* Pupils will be able to: • apply their knowledge of the properties of squares and rectangles to construct all possible squares and rectangles using straws of given lengths • create different composite shapes with a square and a rectangle	• Identifying relationships • Spatial visualisation	• Pupil Textbook 4A, pp 142 to 147 • Practice Book 4A, pp 141 to 144 • Teacher's Guide 4A, pp 230 to 235
7	**(2) More on squares and rectangles** Pupils will be able to find unknown angles and sides of squares and rectangles.	• Identifying relationships • Spatial visualisation	• Pupil Textbook 4A, pp 148 to 151 • Practice Book 4A, pp 145 to 148 • Teacher's Guide 4A, pp 236 to 239
7	*Put On Your Thinking Caps!* These questions enable pupils to use the strategies for acting out and drawing a diagram to solve the questions.	• Identifying relationships Heuristics for problem solving: • Act it out • Draw a diagram	• Pupil Textbook 4A, p 152 • Practice Book 4A, pp 149 to 152 • Teacher's Guide 4A, p 240
	Review 4 Revision 1		• Practice Book 4A, pp 153 to 168

Summative assessment opportunities
Assessment Book 4, Test 4, pp 35 to 42 For extension, Assessment Book 4, Challenging Problems 2, pp 43 to 44 Assessment Book 4, Check-up 2, pp 45 to 56

Unit 9: Decimals (1)

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Understanding tenths** Pupils will be able to: • read and write tenths as decimals (1 decimal place) • represent and interpret tenths in region, number line and place value models • recognise that 10 tenths = 1 one • write a fraction with denominator 10 as a decimal	• Translating decimal representation to models and vice versa • Translating fraction statements and verbal statements to decimals • Relating number line representation to decimals • Applying place value concepts	• Pupil Textbook 4B, pp 8 to 13 • Practice Book 4B, pp 7 to 10 • Teacher's Guide 4B, pp 6 to 11
1	**(2) Understanding hundredths** Pupils will be able to: • read and write hundredths as decimals (2 decimal places) • represent and interpret hundredths in region, number line and place value models • recognise that 10 hundredths = 1 tenth • write a fraction with denominator 100 as a decimal	• Translating decimal representation to models and vice versa • Translating fraction statements and verbal statements to decimals • Relating number line representation to decimals • Applying place value concepts	• Pupil Textbook 4B, pp 14 to 20 • Practice Book 4B, pp 11 to 14 • Teacher's Guide 4B, pp 12 to 18
1–2	**(3) Understanding thousandths** Pupils will be able to: • read and write thousandths as decimals (3 decimal places) • represent and interpret thousandths in region, number line and place value models • recognise that 10 thousandths = 1 hundredth • write a fraction with denominator 1000 as a decimal	• Translating decimal representation to models and vice versa • Translating fraction statements and verbal statements to decimals • Relating number line representation to decimals • Applying place value concepts	• Pupil Textbook 4B, pp 21 to 27 • Practice Book 4B, pp 15 to 18 • Teacher's Guide 4B, pp 19 to 25
2	**(4) Comparing decimals** Pupils will be able to compare and order decimals. *Let's Explore!* This activity enables pupils to explore how inserting a zero in a decimal affects its value.	• Comparing • Applying place value concepts	• Pupil Textbook 4B, pp 28 to 33 • Practice Book 4B, pp 19 to 24 • Teacher's Guide 4B, pp 26 to 31

2	**(5) Rounding decimals** Pupils will be able to: • round decimals to the nearest whole number • round decimals to the nearest tenth or 1 decimal place • round decimals to the nearest hundredth or 2 decimal places *Let's Explore!* These tasks enable pupils to do the reverse of rounding. They need to reverse their thinking process to find the possible numbers which can be rounded to a given value.	• Applying ordering skills and place value concepts • Applying rounding skills to practical problems	• Pupil Textbook 4B, pp 34 to 39 • Practice Book 4B, pp 25 to 30 • Teacher's Guide 4B, pp 32 to 37
2–3	**(6) Fractions and decimals** Pupils will be able to: • express a fraction (whose denominator is a factor of 10 or 100) as a decimal by changing the denominator to 10 or 100 • express a decimal as a fraction in its simplest form *Maths Journal* This *Maths Journal* enables pupils to explain why the procedure Peter and Miya use in comparing decimals is incorrect.	• Applying concept of equivalent fractions • Translating fractions to decimals and vice versa • Comparing • Inductive reasoning	• Pupil Textbook 4B, pp 40 to 45 • Practice Book 4B, pp 31 to 32 • Teacher's Guide 4B, pp 38 to 43
3	*Put On Your Thinking Caps!* Pupils will be able to use tenths and hundredths for estimating lengths.	• Analysing parts and wholes • Comparing	• Pupil Textbook 4B, pp 46 to 47 • Practice Book 4B, pp 33 to 34 • Teacher's Guide 4B, pp 44 to 45

Unit 10: Decimals (2)

Week	Learning Objectives	Thinking Skills	Resources
3	**(1) Addition** Pupils will be able to: • regroup decimals • add decimals up to 2 decimal places	• Recalling addition facts • Applying place value relationships	• Pupil Textbook 4B, pp 48 to 51 • Practice Book 4B, pp 35 to 40 • Teacher's Guide 4B, pp 64 to 67
3	**(2) Subtraction** Pupils will be able to: • regroup decimals • subtract decimals up to 2 decimal places • subtract a decimal up to 2 decimal places from a whole number	• Recalling subtraction facts • Applying place value relationships	• Pupil Textbook 4B, pp 52 to 57 • Practice Book 4B, pp 41 to 46 • Teacher's Guide 4B, pp 68 to 73
4	**(3) Word problems** Pupils will be able to solve up to two-step word problems involving addition and subtraction of decimals.	• Applying concepts of addition and subtraction • Translating verbal statements to models and/or number sentences	• Pupil Textbook 4B, pp 58 to 60 • Practice Book 4B, pp 47 to 48 • Teacher's Guide 4B, pp 74 to 76
4	**(4) Multiplication** Pupils will be able to multiply decimals up to 2 decimal places by a 1-digit whole number.	• Recalling multiplication facts • Applying place value concepts	• Pupil Textbook 4B, pp 61 to 65 • Practice Book 4B, pp 49 to 52 • Teacher's Guide 4B, pp 77 to 81
4	**(5) Division** Pupils will be able to: • divide decimals up to 2 decimal places by a 1-digit whole number • round quotients to 1 or 2 decimal places	• Recalling division facts • Applying place value concepts • Applying rounding skills	• Pupil Textbook 4B, pp 66 to 72 • Practice Book 4B, pp 53 to 58 • Teacher's Guide 4B, pp 82 to 88
5	**(6) Estimation of decimals** Pupils will be able to estimate the answers in calculations involving addition, subtraction, multiplication and division.	• Applying rounding skills • Mental calculation	• Pupil Textbook 4B, pp 73 to 76 • Practice Book 4B, pp 59 to 62 • Teacher's Guide 4B, pp 89 to 92
5	**(7) Word problems** Pupils will be able to solve up to two-step word problems involving multiplication and division of decimals.	• Applying concepts of multiplication and division • Translating verbal statements to models and/or number sentences • Identifying relationships	• Pupil Textbook 4B, pp 77 to 79 • Practice Book 4B, pp 63 to 66 • Teacher's Guide 4B, pp 93 to 94

5	*Let's Explore!* *Let's Explore!* enables pupils to find the possible combinations of 5p and 20p coins which add up to £1·15. *Maths Journal* *Maths Journal* enables pupils to use their creativity to write a word problem from given information.		• Pupil Textbook 4B, p 79 • Teacher's Guide 4B, p 95
5	*Put On Your Thinking Caps!* Pupils will be able to use the strategy of 'guess and check' to solve these questions.	• Logical reasoning Heuristic for problem solving: • Guess and check	• Pupil Textbook 4B, p 80 • Practice Book 4B, pp 67 to 68 • Teacher's Guide 4B, p 96
	Review 5		• Practice Book 4B, pp 69 to 78

Unit 11: Time

Week	Learning Objectives	Thinking Skills	Resources
6	**(1) Seconds** Pupils will be able to: • state that 60 seconds = 1 minute • use seconds to measure duration • estimate duration in seconds	• Identifying relationships	• Pupil Textbook 4B, pp 81 to 85 • Practice Book 4B, pp 79 to 80 • Teacher's Guide 4B, pp 121 to 125
6	**(2) 24-hour clock** Pupils will be able to: • write the time using the 24-hour clock • convert time from the 12-hour clock to the 24-hour clock and vice versa • find the duration between two given times using the 24-hour clock • find the starting/ending time given the duration and the ending/starting time *Maths Journal* • *Maths Journal* enables pupils to make practical use of the 24-hour clock to record their daily activities. • *Maths Journal* enables pupils to express their understanding of or difficulty with the concepts, skills and processes they have learnt in this topic.	• Identifying relationships • Sequencing	• Pupil Textbook 4B, pp 86 to 97 • Practice Book 4B, pp 81 to 86 • Teacher's Guide 4B, pp 126 to 137
6	*Put On Your Thinking Caps!* This *Put On Your Thinking Caps!* question enables pupils to apply the strategy of using a diagram (a time line) to solve the problem.	Heuristic for problem solving: • Draw a diagram	• Pupil Textbook 4B, p 97 • Practice Book 4B, pp 87 to 88 • Teacher's Guide 4B, p 137

Summative assessment opportunities
Assessment Book 4, Test 5, pp 57 to 62 For extension, Assessment Book 4, Challenging Problems 3, p 63 Assessment Book 4, Check-up 3, pp 65 to 74

Unit 12: Area and Perimeter

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Rectangles and squares** Pupils will be able to: • recall the formulas to find the perimeter and area of a square and a rectangle • use the formula that the sum of the length and width of a rectangle is half of its perimeter • find the length or width of a rectangle given its perimeter and the width or length respectively • find the side of a square given its perimeter • find the length or width of a rectangle given its area and the width or length respectively • find the side of a square given its area	• Applying concepts of perimeter and area • Relating addition to subtraction and multiplication to division • Identifying relationships • Spatial visualisation	• Pupil Textbook 4B, pp 98 to 103 • Practice Book 4B, pp 89 to 92 • Teacher's Guide 4B, pp 148 to 153
1	*Let's Explore!* Pupils will be able to: • investigate whether there is any relationship between the area and the perimeter of a rectangle • determine how the area of a rectangle changes when the length or width is changed		• Pupil Textbook 4B, p 104 • Teacher's Guide 4B, p 154
1–2	**(2) Composite shapes** Pupils will be able to: • find the perimeter of a composite shape made up of squares and/or rectangles • find the area of a composite shape made up of squares and/or rectangles • visualise that a composite shape can be dissected into two or more shapes	• Comparing • Spatial visualisation • Applying concepts of perimeter and area to composite shapes	• Pupil Textbook 4B, pp 105 to 109 • Practice Book 4B, pp 93 to 96 • Teacher's Guide 4B, pp 155 to 159

2	**(3) Solving word problems** Pupils will be able to: • solve word problems involving composite shapes • apply the strategy 'whole – parts = parts' when solving problems • visualise new and old shapes when a shape has been folded *Let's Explore!* Pupils will be able to visualise that some parts (length or width) do not change when a rectangular piece of paper is folded in a certain way. *Maths Journal* In *Maths Journal*, pupils will be able to recall the skills that they have learnt in this topic.	• Translating verbal statements to diagrammatic representation • Visualising 'part-whole' relationships	• Pupil Textbook 4B, pp 110 to 115 • Practice Book 4B, pp 97 to 98 • Teacher's Guide 4B, pp 160 to 165
2	*Put On Your Thinking Caps!* In *Put On Your Thinking Caps!* pupils will be able to use the strategies of making a list/table for problems **a** and **d**, and drawing a diagram for problem **b**.	• Spatial visualisation • Comparing Heuristics for problem solving: • Make a systematic list • Draw a diagram • Simplify the problem • Act it out	• Pupil Textbook 4B, pp 115 to 116 • Practice Book 4B, pp 101 to 104 • Teacher's Guide 4B, pp 165 to 166
	Review 6		• Practice Book 4B, pp 105 to 108

Unit 13: Symmetry

Week	Learning Objectives	Thinking Skills	Resources
2–3	**(1) Identifying symmetrical shapes** Pupils will be able to: • recognise symmetrical shapes • demonstrate whether a shape is symmetrical by folding paper	• Spatial visualisation • Comparing	• Pupil Textbook 4B, pp 117 to 122 • Practice Book 4B, pp 109 to 110 • Teacher's Guide 4B, pp 179 to 184
3	**(2) Identifying lines of symmetry** Pupils will be able to determine whether a straight line is a line of symmetry of a shape.	• Spatial visualisation • Comparing	• Pupil Textbook 4B, pp 123 to 126 • Practice Book 4B, pp 111 to 112 • Teacher's Guide 4B, pp 185 to 188
3	**(3) Making symmetrical shapes and patterns** Pupils will be able to: • cut out a symmetrical shape from a folded piece of paper • use a symmetrical shape to make a pattern • complete a symmetrical shape or pattern using a given line of symmetry *Let's Explore!* This task enables pupils to explore how symmetrical patterns can be created on square grid paper using a given line of symmetry.	• Comparing	• Pupil Textbook 4B, pp 127 to 132 • Practice Book 4B, pp 113 to 115 • Teacher's Guide 4B, pp 189 to 194
3	*Put On Your Thinking Caps!* These questions enable pupils to make use of the strategies of looking for patterns and acting it out to solve them.	• Spatial visualisation Heuristics for problem solving: • Look for a pattern • Act it out	• Pupil Textbook 4B, pp 133 to 134 • Practice Book 4B, pp 116 to 118 • Teacher's Guide 4B, pp 195 to 196

Unit 14: Tessellations

Week	Learning Objectives	Thinking Skills	Resources
4	**(1) Identifying tessellations** Pupils will be able to: • recognise a tessellation • identify the unit shape used in a tessellation • make a tessellation using a given shape *Let's Explore!* *Let's Explore!* enables pupils to find out whether all triangles can tessellate.	• Spatial visualisation	• Pupil Textbook 4B, pp 135 to 138 • Practice Book 4B, pp 119 to 122 • Teacher's Guide 4B, pp 205 to 208
4–5	**(2) More tessellations** Pupils will be able to: • tessellate a given unit shape in different ways • create a new tessellating shape from a given shape which tessellates	• Spatial visualisation	• Pupil Textbook 4B, pp 139 to 143 • Practice Book 4B, pp 123 to 126 • Teacher's Guide 4B, pp 209 to 213
5	*Put On Your Thinking Caps!* *Put On Your Thinking Caps!* enables pupils to discover that all four-sided shapes can tessellate. *Maths Journal* *Maths Journal* enables pupils to express whether they have mastered the concepts, skills and processes of this topic.	• Spatial visualisation Heuristic for problem solving: • Act it out	• Pupil Textbook 4B, p 144 • Practice Book 4B, pp 127 to 130 • Teacher's Guide 4B, p 214
	Review 7 Revision 2		• Practice Book 4B, pp 131 to 151
Summative assessment opportunity			
Assessment Book 4, Test 6, pp 75 to 82 For extension, Assessment Book 4, Challenging Problems 4, pp 83 to 85 Assessment Book 4, Check-up 4, pp 87 to 98			