Inspire Maths 2 Medium-term Plan

Unit 1: Numbers to 1000

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Counting** Pupils will be able to: • recognise concrete representations of numbers (100 to 1000), read and write their corresponding numbers and number words • recognise, read and write numbers (100 to 1000) and their corresponding number words (one hundred to one thousand) • count within 1000 by making hundreds and tens first • use the strategies of counting in ones, tens and hundreds to count to 1000 • recognise and interpret sentences associated with tens and ones	• Comparing • Classifying • Identifying relationships • Sequencing	• Pupil Textbook 2A, pp 6 to 9 • Practice Book 2A, pp 5 to 8 • Teacher's Guide 2A, pp 6 to 9
1	**(2) Place value** Pupils will be able to: • represent numbers as hundreds, tens and ones in a place value chart • show concrete representations in hundreds, tens and ones given a number up to 1000 • read and write numerals given a set of concrete representation and vice versa, with or without a place value chart	• Comparing • Classifying	• Pupil Textbook 2A, pp 10 to 13 • Practice Book 2A, pp 9 to 14 • Teacher's Guide 2A, pp 10 to 13
1	**(3) Comparing numbers within 1000** Pupils will be able to: • use the 'comparing the tens and then the ones' strategy to compare numbers up to 1000 • compare numbers up to 1000 using the terms 'greater than' and 'smaller than' with and without concrete representations • compare numbers up to 1000 using the terms 'greatest' and 'smallest' with and without concrete representations • compare numbers up to 1000 using the terms 'more than' and 'less than' with and without concrete representations	• Comparing • Classifying • Identifying relationships	• Pupil Textbook 2A, pp 14 to 18 • Practice Book 2A, pp 15 to 16 • Teacher's Guide 2A, pp 14 to 18

2	**(4) Order and pattern** Pupils will be able to: • compare two or more 3-digit numbers • identify the 'greatest number' and the 'smallest number' • compare a number with the previous number using the terms '1 more than', '1 less than', '10 more than', '10 less than', '100 more than' and '100 less than' • arrange numbers up to 1000 in an ascending or a descending order • recognise, read and write missing numbers in a given number sequence	• Comparing • Classifying • Identifying relationships • Sequencing	• Pupil Textbook 2A, pp 19, 21 to 23 • Practice Book 2A, pp 17 to 18 • Teacher's Guide 2A, pp 19, 21 to 23
2	*Maths Journal* Pupils will be able to: • recall steps to compare numbers and then arrange them (in ascending or descending order) • write down the necessary steps for comparing two or more numbers up to 1000 • recall and apply the 'compare the hundreds first, then the tens and the ones' strategy to compare and arrange numbers up to 1000 in an ascending or a descending order • identify mistakes in the sample journal and give reasons why they are incorrect	• Comparing • Identifying relationships • Recalling • Sequencing	• Pupil Textbook 2A, p 20 • Teacher's Guide 2A, p 20
2	*Let's Explore!* Pupils will be able to recognise that they always need to add 1 when using the 'find the difference' method to get the correct answer.	• Classifying • Identifying relationships • Sequencing	• Pupil Textbook 2A, pp 24 to 25 • Teacher's Guide 2A, pp 24 to 25
2	*Put On Your Thinking Caps!* Pupils will be able to: • apply the concepts learnt to find the missing numbers in '___more than' and '___ less than' by counting on • apply the concepts learnt to find the missing number in '___ more than' or '___ less than' by working back	• Classifying • Identifying relationships • Deduction • Sequencing	• Pupil Textbook 2A, pp 25 to 26 • Practice Book 2A, pp 19 to 22 • Teacher's Guide 2A, pp 25 to 26

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Unit 2: Addition and Subtraction within 1000

Week	Learning Objectives	Thinking Skills	Resources
3	**(1) Simple addition within 1000** Pupils will be able to: • use place value charts with concrete representations to show addition of a 1-digit, 2-digit or 3-digit number to a 3-digit number without regrouping • add a 1-digit, 2-digit or 3-digit number to a 3-digit number without regrouping using both horizontal and column additions • solve simple addition word problems involving addition of a 1-digit, 2-digit or 3-digit number to a 3-digit number without regrouping	• Comparing	• Pupil Textbook 2A, pp 27 to 30 • Practice Book 2A, pp 23 to 26 • Teacher's Guide 2A, pp 43 to 46
3	**(2) Simple subtraction within 1000** Pupils will be able to: • use place value charts and concrete representations to show subtraction of a 1-digit, 2-digit or 3-digit number from a 3-digit number • subtract a 1-digit, 2-digit or 3-digit number from a 3-digit number without regrouping using both horizontal and column subtraction • solve simple subtraction word problems involving subtraction of a 1-digit, 2-digit or 3-digit number from a 3-digit number without regrouping	• Comparing	• Pupil Textbook 2A, pp 31 to 34 • Practice Book 2A, pp 27 to 30 • Teacher's Guide 2A, pp 47 to 50
3	**(3) Addition with regrouping the ones** Pupils will be able to: • use place value charts and concrete representations to show addition of two 3-digit numbers with regrouping the ones • add a 3-digit number to another 3-digit number with regrouping the ones in both horizontal and column additions • solve simple addition word problems involving addition of a 3-digit number to another 3-digit number with regrouping the ones	• Comparing • Regrouping	• Pupil Textbook 2A, pp 35 to 37 • Practice Book 2A, pp 31 to 34 • Teacher's Guide 2A, pp 51 to 53
3	**(4) Addition with regrouping the tens** Pupils will be able to: • use place value charts and concrete representations to show addition of a 2-digit number to a 3-digit number with regrouping the tens • add a 3-digit number to another 3-digit number with regrouping the tens in both horizontal and column additions • solve simple addition word problems involving addition of a 3-digit number to another 3-digit number with regrouping the tens	• Comparing • Regrouping	• Pupil Textbook 2A, pp 38 to 39 • Practice Book 2A, pp 35 to 38 • Teacher's Guide 2A, pp 54 to 55

4	**(5) Addition with regrouping the tens and ones** Pupils will be able to: • use place value charts and concrete representations to show regrouping from ones to tens and from tens to hundreds in addition • add a 3-digit number to another 3-digit number with regrouping in ones and tens using both horizontal and column additions • solve simple addition word problems involving addition of a 3-digit number to another 3-digit number with regrouping the ones and tens	• Comparing • Regrouping	• Pupil Textbook 2A, pp 40 to 43 • Practice Book 2A, pp 39 to 42 • Teacher's Guide 2A, pp 56 to 59
4	**(6) Subtraction with regrouping the tens and ones** Pupils will be able to: • use place value charts and concrete representations to show regrouping from tens to ones in subtraction • subtract a 3-digit number from another 3-digit number with regrouping the tens to ones using both horizontal and column subtractions • solve simple subtraction word problems involving subtraction of a 3-digit number from another 3-digit number with regrouping from tens to ones	• Comparing • Regrouping	• Pupil Textbook 2A, pp 44 to 46 • Practice Book 2A, pp 43 to 46 • Teacher's Guide 2A, pp 60 to 62
4	**(7) Subtraction with regrouping the hundreds and tens** Pupils will be able to: • use place value charts and concrete representations to show regrouping from hundreds to tens in subtraction • subtract a 3-digit number from another 3-digit number with regrouping from hundreds to tens using both horizontal and column subtractions • solve simple subtraction word problems involving subtraction of a 3-digit number from another 3-digit number with regrouping from hundreds to tens	• Comparing • Regrouping	• Pupil Textbook 2A, pp 47 to 51 • Practice Book 2A, pp 47 to 50 • Teacher's Guide 2A, pp 63 to 67
5	**(8) Subtraction with regrouping the hundreds, tens and ones** Pupils will be able to: • use place value charts and concrete representations to show regrouping from hundreds to tens and from tens to ones in subtraction • subtract a 3-digit number from another 3-digit number with regrouping from hundreds to tens and from tens to ones using both horizontal and column subtractions • solve simple subtraction word problems involving subtraction of a 3-digit number from another 3-digit number with regrouping from hundreds to tens and from tens to ones	• Comparing • Regrouping	• Pupil Textbook 2A, pp 52 to 55 • Practice Book 2A, pp 51 to 54 • Teacher's Guide 2A, pp 68 to 71

5	**(9) Subtraction with numbers that have zeros** Pupils will be able to: • use place value charts and concrete representations to show regrouping from hundreds to tens and then from tens to ones in subtraction when the minuend is in hundreds • subtract a 2-digit or 3-digit number from another 3-digit number in hundreds with regrouping from hundreds to tens and then from tens to ones using both horizontal and column subtraction • solve simple subtraction word problems involving subtraction of a 2-digit or 3-digit number from a 3-digit number in hundreds with regrouping from hundreds to tens and then from tens to ones	• Comparing • Regrouping	• Pupil Textbook 2A, pp 56 to 58 • Practice Book 2A, pp 55 to 56 • Teacher's Guide 2A, pp 72 to 74
5	*Put On Your Thinking Caps!* Pupils will be able to use the deductive approach and work back to solve the problem.	• Deduction Heuristic for problem solving: • Work back	• Pupil Textbook 2A, p 59 • Practice Book 2A, pp 57 to 58 • Teacher's Guide 2A, p 75
	Review 1		• Practice Book 2A, pp 59 to 64
Summative assessment opportunity			
Assessment Book 2, Test 1, pp 1 to 6			

Unit 3: Using Models: Addition and Subtraction

Week	Learning Objectives	Thinking Skills	Resources
6	**(1) Simple word problems (1)** Pupils will be able to: • see the link between unit cube representation in 2D with bar diagrams in model drawings • interpret and represent the 'part-whole' concept in addition using models either with paper strips or by drawing bars • interpret and represent the 'part-whole' concept in subtraction using models either with paper strips or by drawing bars	• Analysing the 'part-whole' concept in addition and subtraction	• Pupil Textbook 2A, pp 60 to 64 • Practice Book 2A, pp 65 to 68 • Teacher's Guide 2A, pp 100 to 104
6	**(2) Simple word problems (2)** Pupils will be able to: • interpret and represent the 'adding on' concept in addition using models either with paper strips or by drawing bars • interpret and represent the 'taking away' concept in subtraction using models either with paper strips or by drawing bars	• Analysing the 'adding on' and 'taking away' concepts in addition and subtraction	• Pupil Textbook 2A, pp 65 to 68 • Practice Book 2A, pp 69 to 72 • Teacher's Guide 2A, pp 105 to 108
6	**(3) Simple word problems (3)** Pupils will be able to interpret and represent the 'comparing' concept in addition or subtraction using models either with paper strips or by drawing bars.	• Analysing the 'comparing' concept in addition and subtraction	• Pupil Textbook 2A, pp 69 to 72 • Practice Book 2A, pp 73 to 76 • Teacher's Guide 2A, pp 109 to 112
6	**(4) Two-step word problems** Pupils will be able to interpret and represent 2-step problems in addition and subtraction using models either with paper strips or by drawing bars. *Let's Explore!* Pupils will be able to reflect on the concepts in addition and subtraction by writing word problems.	• Interpreting and analysing complex addition and subtraction concepts	• Pupil Textbook 2A, pp 73 to 78 • Practice Book 2A, pp 77 to 83 • Teacher's Guide 2A, pp 113 to 118

Unit 4: Multiplication and Division

Week	Learning Objectives	Thinking Skills	Resources
7	**(1) How to multiply** Pupils will be able to: • interpret the concept of multiplication as the number of groups by the number of items and as repeated addition • interpret the concept of multiplication as multiplying a set of items by number of times • calculate multiplication using repeated addition	• Analysing the 'group and item' concept in multiplication	• Pupil Textbook 2A, pp 79 to 80 • Practice Book 2A, pp 85 to 86 • Teacher's Guide 2A, pp 131 to 132
7	**(2) How to divide** Pupils will be able to: • interpret the concept of division as sharing a number of items equally between a number of groups • interpret the concept of division as dividing a set of items into groups given a fixed set of items in each group • calculate division by relating to multiplication or repeated addition	• Analysing the 'sharing equally' concept in division	• Pupil Textbook 2A, pp 81 to 85 • Practice Book 2A, pp 87 to 88 • Teacher's Guide 2A, pp 133 to 137
7	*Put On Your Thinking Caps!*	• Identifying patterns and relationships	• Pupil Textbook 2A, p 85 • Practice Book 2A, pp 89 to 90 • Teacher's Guide 2A, p 137
	Review 2		• Practice Book 2A, pp 91 to 96
Summative assessment opportunities			

Assessment Book 2, Test 2, pp 7 to 14
For extension, Assessment Book 2, Challenging Problems 1, pp 15 to 16
Assessment Book 2, Check-up 1, pp 17 to 28

Unit 5: Multiplying by 2 and 3

Week	Learning Objectives	Thinking Skills	Resources
8	**(1) Multiplying by 2: skip-counting** Pupils will be able to: • recall the 'multiplication' concept in groups of two • use the 'skip-count in twos' strategy to find the two times table facts • write the multiplication sentence from a word problem • commit the two times table facts to memory	• Associating and relating	• Pupil Textbook 2A, pp 86 to 88 • Practice Book 2B, pp 5 to 6 • Teacher's Guide 2A, pp 148 to 150
8	**(2) Multiplying by 2: using dot paper** Pupils will be able to: • recall the 'multiplication' concept as multiplying • relate the multiples of 2 to dot paper that has two dots on each row • use dot paper as a strategy to find the two times table facts • use the 'commutative property' with dot paper as a strategy to find the two times table facts • use the 'connecting fact' strategy starting from 5 × 2 to find a more difficult fact • use the 'connecting fact' strategy starting from 10 × 2 to find a more difficult fact	• Relating and connecting related facts	• Pupil Textbook 2A, pp 89 to 94 • Practice Book 2B, pp 7 to 10 • Teacher's Guide 2A, pp 151 to 156
8	**(3) Multiplying by 3: skip-counting** Pupils will be able to: • recall the 'multiplication' concept in groups of three • use the 'skip-count in threes' strategy to find the three times table facts • write the multiplication sentence from a word problem • commit the three times table facts to memory	• Associating and relating	• Pupil Textbook 2A, pp 95 to 97 • Practice Book 2B, pp 11 to 12 • Teacher's Guide 2A, pp 157 to 159

8	**(4) Multiplying by 3: using dot paper** Pupils will be able to: • recall the 'multiplication' concept as multiplying • relate the multiples of 3 with dot paper that has three dots on each row • use dot paper as a strategy to find the three times table facts • use the 'commutative property' with dot paper as a strategy to find the three times table facts • use the 'connecting fact' strategy starting from 5 × 3 to find a more difficult fact • use the 'connecting fact' strategy starting from 10 × 3 to find a more difficult fact	• Relating and connecting related facts	• Pupil Textbook 2A, pp 98 to 101 • Practice Book 2B, pp 13 to 16 • Teacher's Guide 2A, pp 160 to 163
8 – 9	**(5) Division** Pupils will be able to: • find the number of items in each equal group given a total number of items and number of groups (2 or 3 equal groups) • find the number of groups given the total number of items and the number of items in each group • recall multiplication facts to find division facts involving 3 as a dividend • write division number statements • solve simple division word problems involving finding the number of items or number of groups *Let's Explore!* Pupils will be able to apply multiples of 2 and 3 or two or three times table facts, and make a list strategy to solve the problem.	• Relating division with multiplication • Deduction Heuristic for problem solving: • Guess and check	• Pupil Textbook 2A, pp 102 to 105 • Practice Book 2B, pp 17 to 20 • Teacher's Guide 2A, pp 164 to 167
9	*Put On Your Thinking Caps!* Pupils will be able to use skip-counting in 2s and 3s to find the missing numbers.	• Deduction • Sequencing Heuristics for problem solving: • Guess and check • Work back	• Pupil Textbook 2A, p 105 • Practice Book 2B, pp 21 to 22 • Teacher's Guide 2A, p 167

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Unit 6: Multiplying by 4, 5 and 10

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Multiplying by 4: skip-counting** Pupils will be able to: • recall the 'multiplication' concept in groups of 4 or multiplying by 4 • use the 'skip-count in fours' strategy to find the four times table facts • write the multiplication sentence from a word problem • commit the four times table facts to memory	• Associating and relating	• Pupil Textbook 2A, pp 106 to 108 • Practice Book 2B, pp 23 to 24 • Teacher's Guide 2A, pp 182 to 184
1	**(2) Multiplying by 4: using dot paper** Pupils will be able to: • relate the multiples of 4 to dot paper that has four dots on each row • use dot paper as a strategy to find the four times table facts • use the 'commutative property' with dot paper as a strategy to find the four times table facts • use the 'connecting fact' strategy starting from 5 × 4 to find a more difficult fact • use the 'connecting fact' strategy starting from 10 × 4 to find a more difficult fact	• Relating and connecting related facts	• Pupil Textbook 2A, pp 109 to 114 • Practice Book 2B, pp 25 to 28 • Teacher's Guide 2A, pp 185 to 190
1	**(3) Multiplying by 5: skip-counting** Pupils will be able to: • recall the 'multiplication' concept in groups of 5 or multiplying by 5 • use the 'skip-count in fives' strategy to find the five times table facts • write the multiplication sentence from a word problem • commit the five times table facts to memory	• Associating and relating	• Pupil Textbook 2A, pp 115 to 117 • Practice Book 2B, pp 29 to 32 • Teacher's Guide 2A, pp 191 to 193
1 – 2	**(4) Multiplying by 5: using dot paper** Pupils will be able to: • relate the multiples of 5 to dot paper that has five dots on each row • use dot paper as a strategy to find the five times table facts • use the 'commutative property' with dot paper as a strategy to find the five times table facts • use the 'connecting fact' strategy starting from 5 × 5 to find a more difficult fact • use the 'connecting fact' strategy starting from 10 × 5 to find a more difficult fact	• Relating and connecting related facts	• Pupil Textbook 2A, pp 118 to 121 • Practice Book 2B, pp 33 to 34 • Teacher's Guide 2A, pp 194 to 197

2	**(5) Multiplying by 10: skip-counting and using dot paper** Pupils will be able to: • recall the 'multiplication' concept in groups of 10 or multiplying 10 • use the 'skip-count in tens' strategy to find the ten times table facts • write the multiplication sentence from a word problem • use dot paper as a strategy to find the ten times table facts • use the 'commutative property' with dot paper as a strategy to find the ten times table facts • use the 'short-cut' strategy starting from a simple fact to find a more complicated fact with '0' • commit the ten times table facts to memory	• Relating and connecting related facts	• Pupil Textbook 2A, pp 122 to 125 • Practice Book 2B, pp 35 to 38 • Teacher's Guide 2A, pp 198 to 201
2	**(6) Division** Pupils will be able to: • recall division concepts in finding the number of groups or the number of items in each group • find division facts by recalling multiplication facts • relate division and multiplication facts • write division facts from given multiplication facts	• Relating two different concepts	• Pupil Textbook 2A, pp 126 to 130 • Practice Book 2B, pp 39 to 42 • Teacher's Guide 2A, pp 202 to 206
2	*Put On Your Thinking Caps!* Pupils will be able to apply the 'drawing diagram' strategy and 'division' strategy to solve the problem.	• Deduction • Identifying relationships • Sequencing	• Pupil Textbook 2A, p 131 • Practice Book 2B, pp 43 to 44 • Teacher's Guide 2A, p 207
	Review 3		• Practice Book 2B, pp 45 to 48
Summative assessment opportunity				
Assessment Book 2, Test 3, pp 29 to 34				

Unit 7: Using Models: Multiplication and Division

Week	Learning Objectives	Thinking Skills	Resources
3	**(1) Multiplication** Pupils will be able to interpret and represent the 'group and item' concept in multiplication using models either with paper strips or drawing bars.	• Analysing the 'group and item' concept in multiplication	• Pupil Textbook 2A, pp 132 to 133 • Practice Book 2B, pp 49 to 52 • Teacher's Guide 2A, pp 224 to 225
3	**(2) Division** Pupils will be able to interpret and represent the 'group and item' concept in division using models either with paper strips or drawing bars to find the number of items or groups	• Analysing the 'sharing equally' concept in division	• Pupil Textbook 2A, pp 134 to 136 • Practice Book 2B, pp 53 to 58 • Teacher's Guide 2A, pp 226 to 228

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Unit 8: Length

Week	Learning Objectives	Thinking Skills	Resources
4	**(1) Measuring in metres** Pupils will be able to: • recognise the unit of measurement for length as metre (m) • estimate and measure 1 metre (1 m) lengths • name objects that are more than 1 m long, and objects that are less than 1 m long • estimate and measure the lengths of objects in metres	• Estimation	• Pupil Textbook 2A, pp 137 to 139 • Practice Book 2B, pp 59 to 62 • Teacher's Guide 2A, pp 239 to 241
4	**(2) Comparing lengths in metres** Pupils will be able to: • compare the lengths of objects by measuring their lengths in metres • find the difference (how much more or less) in the lengths of objects by subtracting the lengths	• Estimation • Comparing	• Pupil Textbook 2A, pp 140 to 141 • Practice Book 2B, pp 63 to 64 • Teacher's Guide 2A, pp 242 to 243
4	**(3) Measuring in centimetres** Pupils will be able to: • recognise the unit of measurement centimetres (cm) and that it is used for measuring shorter lengths as compared to the metre • measure lengths of objects in centimetres (cm) using a ruler • use a string to measure the lengths of curves • draw lines given their lengths in centimetres using a ruler	• Comparing • Sequencing	• Pupil Textbook 2A, pp 142 to 145 • Practice Book 2B, pp 65 to 66 • Teacher's Guide 2A, pp 244 to 247
4 – 5	**(4) Comparing lengths in centimetres** Pupils will be able to: • measure lengths of objects in cm using a ruler • compare the lengths of objects in cm and identify the longer and the shorter objects • find the length of an object when the object is not placed at the '0' mark • find the difference (how much more or less) in the lengths of objects by subtracting the lengths	• Comparing	• Pupil Textbook 2A, pp 146 to 147 • Practice Book 2B, pp 67 to 70 • Teacher's Guide 2A, pp 248 to 249

5	**(5) Addition and subtraction of length** Pupils will be able to: • solve one- and two-step word problems by relating them to addition and subtraction concepts such as 'part-whole', 'adding on', 'taking away' and 'comparing' • draw models to help them solve word problems	• Estimation • Comparing	• Pupil Textbook 2A, pp 148 to 151 • Practice Book 2B, pp 71 to 76 • Teacher's Guide 2A, pp 250 to 253
5	**(6) Multiplication and division of length** Pupils will be able to: • solve one- and two-step word problems by relating them to multiplication and division concepts such as 'group and item' and 'multiplying' • draw models to help them solve word problems	• Deduction	• Pupil Textbook 2A, pp 152 to 153 • Practice Book 2B, pp 77 to 78 • Teacher's Guide 2A, pp 254 to 255
5	*Put On Your Thinking Caps!* Pupils will be able to guess and check the path taken by the ant such that the path is of a certain length.	• Deduction • Sequencing Heuristic for problem solving: • Guess and check	• Pupil Textbook 2A, p 154 • Practice Book 2B, pp 79 to 80 • Teacher's Guide 2A, p 256

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Unit 9: Mass

Week	Learning Objectives	Thinking Skills	Resources
6	**(1) Measuring in kilograms** Pupils will be able to: • use the unit kilogram (kg) for measuring mass and have a sense of how heavy 1 kg is • tell how heavy 1 kg is by weighing an object, e.g. a bag of flour • read a scale which shows '1 kg', 'less than 1 kg' or 'more than 1 kg' • estimate the mass of an object and then check by measuring its mass using a weighing scale • find the mass of an object in kg using the balance with 1 kg weights • compare the masses of objects and tell which is heavier or lighter • solve problems by applying the 'balancing' concept	• Estimation	• Pupil Textbook 2A, pp 155 to 159 • Practice Book 2B, pp 81 to 82 • Teacher's Guide 2A, pp 273 to 277
6	**(2) Comparing masses in kilograms** Pupils will be able to: • read a scale to determine the mass of objects • tell which object or person is heavier and how much heavier by weighing the objects separately • read a scale where the indicator does not point exactly to the numbers on the scale • use a kitchen scale to determine the order of the masses of two or three items	• Comparing • Estimation	• Pupil Textbook 2A, pp 160 to 161 • Practice Book 2B, pp 83 to 86 • Teacher's Guide 2A, pp 278 to 279
6	**(3) Measuring in grams** Pupils will be able to: • use the unit gram (g) for measuring mass and have a sense of how heavy 1 g is • tell how heavy 1 g is by weighing an item, e.g. a paper clip • read a scale which shows masses less than 500 g • find the mass of an object in grams using the balance with 1 g masses • determine the correct weighing scale for different items	• Comparing • Estimation	• Pupil Textbook 2A, pp 162 to 164 • Practice Book 2B, pp 87 to 92 • Teacher's Guide 2A, pp 280 to 282

7	**(4) Comparing masses in grams** Pupils will be able to: • measure and compare masses in g • identify which object is heavier/lighter/heaviest/lightest • state how much heavier an object is by subtracting • estimate the mass of an object and then verify it by using a weighing scale • solve problems by comparing the masses of combinations of items	• Comparing • Sequencing	• Pupil Textbook 2A, pp 165 to 168 • Practice Book 2B, pp 93 to 94 • Teacher's Guide 2A, pp 283 to 286
7	**(5) Addition and subtraction of mass** Pupils will be able to: • find the total mass of two or more items (in kg) by adding the masses • find the difference in the masses by subtracting • solve problems and determine the operations used based on the addition and subtraction concepts • use models to help them solve problems • solve two-step word problems involving addition and subtraction of masses using the 'part-whole', 'comparison', 'adding on' and 'taking away' models	• Comparing	• Pupil Textbook 2A, pp 169 to 172 • Practice Book 2B, pp 95 to 96 • Teacher's Guide 2A, pp 287 to 290
7	**(6) Multiplication and division of mass** Pupils will be able to: • solve problems involving multiplication concepts • use models to help them solve problems • solve one-step word problems involving multiplication • solve problems involving the division concept • read a word problem and decide if it is a multiplication or division calculation	• Comparing	• Pupil Textbook 2A, pp 173 to 175 • Practice Book 2B, pp 97 to 98 • Teacher's Guide 2A, pp 291 to 293
7	*Put On Your Thinking Caps!* Pupils will be able to solve problems using deduction.	• Deduction • Inference	• Pupil Textbook 2A, p 175 • Practice Book 2B, pp 99 to 100 • Teacher's Guide 2A, p 293
	Revision 1		• Practice Book 2B, pp 101 to 112

Summative assessment opportunities

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

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Unit 10: Mental Calculations

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Mental addition** Pupils will be able to: • use number bonds for 10s to mentally add a 1-digit number to a 2-digit number within 100 without regrouping • use number bonds to mentally add a 1-digit number to a 3-digit number with or without regrouping the ones • use number bonds to mentally add a 3-digit number and tens with or without regrouping in tens • use number bonds to mentally add a 3-digit number and hundreds without regrouping in hundreds	• Classifying • Identifying patterns and relationships	• Pupil Textbook 2B, pp 6 to 12 • Practice Book 2C, pp 5 to 8 • Teacher's Guide 2B, pp 4 to 10
1	**(2) Mental subtraction** Pupils will be able to: • use number bonds to mentally subtract a 1-digit number from a 2-digit number within 100 with or without regrouping • use number bonds to mentally subtract a 1-digit number from a 3-digit number within 1000 with or without regrouping the tens into ones • use number bonds to mentally subtract tens from a 3-digit number within 1000 with or without regrouping the hundreds into tens • use number bonds to mentally subtract hundreds from a 3-digit number without regrouping	• Identifying patterns and relationships	• Pupil Textbook 2B, pp 13 to 18 • Practice Book 2C, pp 9 to 10 • Teacher's Guide 2B, pp 11 to 16

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Unit 11: Money

Week	Learning Objectives	Thinking Skills	Resources
2	**(1) Counting pounds and pence** Pupils will be able to: • recognise different coins and notes and know the value of each • state the total value of a set of notes and coins • write amounts of money in numbers, given the amount written in words *Let's Explore!* Pupils will be able to: • show different ways of making up a value with different notes and coins • show different ways of making up a value in pounds only, pence only or in pounds and pence	• Comparing • Identifying attributes and components • Recalling number bonds	• Pupil Textbook 2B, pp 19 to 23 • Practice Book 2C, pp 11 to 16 • Teacher's Guide 2B, pp 25 to 29
2	**(2) Changing pounds and pence** Pupils will be able to: • convert pence to pounds • convert pence to pounds and pence • convert pounds to pence • convert pounds and pence to pence	• Comparing	• Pupil Textbook 2B, pp 24 to 25 • Practice Book 2C, pp 17 to 18 • Teacher's Guide 2B, pp 30 to 31
3	**(3) Comparing amounts of money** Pupils will be able to: • write the amount of money in a place value chart in pounds and pence • use a strategy to compare the amounts of money by first comparing the pounds followed by the pence • state the greater/greatest or smaller/smallest amount of money using the 'comparing pounds and pence' strategy	• Comparing	• Pupil Textbook 2B, pp 26 to 27 • Practice Book 2C, pp 19 to 22 • Teacher's Guide 2B, pp 32 to 33

3	**(4) Word problems:**	• Making links between addition and subtraction	• Pupil Textbook 2B, pp 28 to 31
	Addition and subtraction of money	• Applying addition and subtraction concepts	• Practice Book 2C, pp 23 to 26
	Pupils will be able to:	• Making links between multiplication and division	• Teacher's Guide 2B, pp 34 to 37
	• solve one-step or two-step word problems in addition or subtraction involving 'part-whole', 'adding on', 'taking away' or 'comparing' concepts; in pounds only or in pence only		
	• draw models to solve word problems in pounds only or in pence only		
	Multiplication and division of money		
	Pupils will be able to:		
	• solve one-step word problems in multiplication and division involving 'group and item' and 'multiplying' concepts		
	• draw models to solve word problems		
3	*Put On Your Thinking Caps!*	• Comparing	• Pupil Textbook 2B, p 31
	Pupils will be able to use the 'making a list' method to solve a challenging problem.	Heuristics for problem solving:	• Practice Book 2C, pp 27 to 28
		• Make a list	• Teacher's Guide 2B, p 37
		• Guess and check	
	Review 4		• Practice Book 2C, pp 29 to 36
Summative assessment opportunity			
Assessment Book 2, Test 5, pp 57 to 63			

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Unit 12: Fractions

Week	Learning Objectives	Thinking Skills	Resources
4	**(1) Understanding fractions** Pupils will be able to: • use shapes to represent one whole and fractions with denominators of up to 12 • write fractions with denominators of up to 12 from given shapes with equal divisions • identify whether a shape has been cut into equal fractional parts • read and write fractions in words • identify parts and whole from a given situation • write fractions to represent the parts of a whole from a given situation *Let's Explore!* Pupils will be able to fold pieces of paper into equal parts in different ways.	• Analysing parts and whole • Visualising equal parts	• Pupil Textbook 2B, pp 32 to 37 • Practice Book 2C, pp 37 to 42 • Teacher's Guide 2B, pp 56 to 61
4	**(2) More fractions** Pupils will be able to: • represent fractions using model drawings • represent a situation in terms of fractions and then model drawings • represent fractions using drawings of shapes *Let's Explore!* Pupils will be able to analyse and visualise different ways in which an object can be divided equally given a fraction. *Maths Journal* Pupils will be able to recall the fraction concepts to tell a story based on model diagrams.	• Analysing and visualising parts and whole	• Pupil Textbook 2B, pp 38 to 43 • Practice Book 2C, pp 43 to 46 • Teacher's Guide 2B, pp 62 to 67

5	**(3) Comparing and ordering fractions** Pupils will be able to: • compare and order two or more fractions with the same denominator using rectangular strips or model drawings of the same size • compare and order two or more fractions with different denominators using rectangular strips or model drawings of the same size • order two or more fractions with or without the use of rectangular strips of the same size or model drawings *Let's Explore!* Pupils will be able to use the 'comparing' strategy to describe which fraction is greater/smaller or the greatest/smallest.	• Comparing and contrasting two or more fractions	• Pupil Textbook 2B, pp 44 to 49 • Practice Book 2C, pp 47 to 52 • Teacher's Guide 2B, pp 68 to 73
5	**(4) Adding and subtracting like fractions** Pupils will be able to: • add two or three fractions with the same denominator taken from a whole • subtract a fraction from another fraction with the same denominator taken from a whole • subtract two fractions with the same denominator from the same whole • conceptualise addition and subtraction of fractions by representing the subtraction with model drawings	• Applying parts and whole in addition and subtraction	• Pupil Textbook 2B, pp 50 to 55 • Practice Book 2C, pp 53 to 56 • Teacher's Guide 2B, pp 74 to 79
6	**(5) Solving word problems** Pupils will be able to: • recall and apply 'part-whole' and 'adding on' concepts in addition of two fractions using model drawing to solve word problems • recall and apply 'part-whole' and 'taking away' concepts in subtraction of fractions using model drawing to solve word problems	• Applying 'part-whole', 'adding on' and 'taking away' concepts in fractions • Visualising equal parts of a whole	• Pupil Textbook 2B, pp 56 to 59 • Practice Book 2C, pp 57 to 58 • Teacher's Guide 2B, pp 80 to 83
6	*Put On Your Thinking Caps!* Pupils will be able to apply the 'adding on' and 'taking away' concepts to solve model drawing problems.	• Comparing and contrasting two or more fractions	• Pupil Textbook 2B, p 59 • Practice Book 2C, pp 59 to 60 • Teacher's Guide 2B, p 83

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Unit 13: Time

Week	Learning Objectives	Thinking Skills	Resources
6	**(1) The minute hand** Pupils will be able to: • recite the 5 times table and relate it to the clock's minute markings • recall and use the conversion: 60 minutes = 1 h • tell the time as __ mins after __ o'clock • read and write the time in minutes to intervals of 5 minutes • name the numeral or draw the minute hand given the time in hours and minutes	• Recall the 5 times table and relate it to the minute hand	• Pupil Textbook 2B, pp 60 to 63 • Practice Book 2C, pp 61 to 64 • Teacher's Guide 2B, pp 100 to 103
6	**(2) Reading and writing the time** Pupils will be able to: • tell the time in hours and minutes by looking at the positions of the hour and minute hands • write the time in hours and minutes in numerals • draw the position of the hour hand or the minute hand given the time in numerals • make up stories about what they were doing at the times shown	• Analysing positions of hour and minute hands	• Pupil Textbook 2B, pp 64 to 68 • Practice Book 2C, pp 65 to 68 • Teacher's Guide 2B, pp 104 to 108
7	**(3) Learning a.m. and p.m.** Pupils will be able to: • write times in a.m. or p.m. to differentiate between morning, afternoon and evening • choose a.m. or p.m. based on clues such as 'in the morning', 'afternoon', 'evening' or 'night' • arrange a sequence of events in order, beginning with the earliest *Maths Journal* Pupils will be able to reinforce their understanding of time and events and relate time with events.	• Analysing events and relating to a.m. or p.m. • Recalling and relating	• Pupil Textbook 2B, pp 69 to 73 • Practice Book 2C, pp 69 to 70 • Teacher's Guide 2B, pp 109 to 113

7	**(4) Time taken in hours and minutes** Pupils will be able to: • find the duration in terms of 1 hour or half an hour given start and end times • find the start time given the end time and duration of 1 hour or half an hour • find the end time given the start time and duration of 1 hour or half an hour	• Analysing time and event	• Pupil Textbook 2B, pp 74 to 77 • Practice Book 2C, pp 71 to 77 • Teacher's Guide 2B, pp 114 to 117
7	*Put on Your Thinking Caps!* Pupils will be able to: • tell the correct time for a clock that is running slow • tell the correct time for a clock that is running fast	• Analysing time and events	• Pupil Textbook 2B, p 78 • Practice Book 2C, pp 78 to 80 • Teacher's Guide 2B, p 118
	Review 5		• Practice Book 2C, pp 81 to 88
Summative assessment opportunities		
Assessment Book 2, Test 6, pp 65 to 70 For extension, Assessment Book 2, Challenging Problems 3, pp 71 to 72 Assessment Book 2, Check-up 3, pp 73 to 82		

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Unit 14: Volume

Week	Learning Objectives	Thinking Skills	Resources
1	**(1) Getting to know volume:** *Understanding volume* Pupils will be able to: • understand and explain that the volume of a liquid is the amount of that liquid in a container • understand that the volume of water is conserved no matter which container is used to contain the water *Comparing volumes* Pupils will be able to: • compare the volumes of liquids in identical containers by comparing the levels of liquid in the containers • compare levels of liquids in identical containers to determine which container has the most or least liquid • compare the volumes of water in identical containers and arrange them in ascending or descending order • compare the amounts of water in identical or non-identical containers by counting the number of non-standard units (glasses) that fill each container	• Spatial visualisation (conceptualising volume of liquid) • Comparing	• Pupil Textbook 2B, pp 79 to 84 • Practice Book 2D, pp 5 to 10 • Teacher's Guide 2B, pp 137 to 142
1	**(2) Measuring in litres** Pupils will be able to: • state that the unit of measurement for volume is the litre (ℓ) • know how much 1 litre of liquid is and give examples of containers that can contain 1 litre of liquid • compare a measuring cylinder with 1 litre of liquid with another cylinder with more/less liquid • estimate the number of litres of water a container can hold and then check by measuring with 1ℓ containers • use a scale on a container to find the volume of water it contains in litres	• Comparing and visualising volumes	• Pupil Textbook 2B, pp 85 to 88 • Practice Book 2D, pp 11 to 14 • Teacher's Guide 2B, pp 143 to 146

1	**(3) Addition and subtraction of volumes** Pupils will be able to: • solve problems by relating the problems to addition and subtraction concepts such as 'part-whole', 'adding on', 'taking away' and 'comparing' • draw models to help solve one-step word problems • solve two-step word problems involving the use of addition and subtraction concepts • draw models to help solve two-step word problems	• Applying concepts of addition and subtraction	• Pupil Textbook 2B, pp 89 to 91 • Practice Book 2D, pp 15 to 16 • Teacher's Guide 2B, pp 147 to 149
2	**(4) Multiplication and division of volumes** Pupils will be able to: • solve problems by relating them to multiplication and division concepts such as 'group and item' and 'multiplying' • draw 'part-whole' models to help solve one-step word problems	• Applying concepts of multiplication and division	• Pupil Textbook 2B, pp 92 to 93 • Practice Book 2D, pp 17 to 18 • Teacher's Guide 2B, pp 150 to 151
2	*Put On Your Thinking Caps!* Pupils will be able to use 'drawing a diagram', comparing and deduction to solve problems.	• Comparing • Deduction Heuristic for problem solving: • Draw a diagram	• Pupil Textbook 2B, p 94 • Practice Book 2D, pp 19 to 20 • Teacher's Guide 2B, p 152

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Unit 15: Graphs

Week	Learning Objectives	Thinking Skills	Resources
2	**(1) Reading picture graphs** Pupils will be able to: • read and interpret picture graphs with scales in 1, 2, 3, 4, 5 or 10 • find the scale given the total number of items for a category and the number of units represented by each symbol • compare the differences between two or more types of items • find the sum of the number of items of two categories given in the picture graph • find the number of symbols to be drawn in the picture graph with sufficient information given	• Comparing • Classifying • Identifying relationships Heuristic For Problem Solving: • Guess and check	• Pupil Textbook 2B, pp 95 to 101 • Practice Book 2D, pp 21 to 24 • Teacher's Guide 2B, pp 165 to 171
2 – 3	**(2) Making picture graphs** Pupils will be able to: • make picture graphs with scales in 1, 2, 3, 4, 5 or 10 • record items and make tables from information found in picture graphs • draw picture graphs with scales from the table, using appropriate scales for each picture graph • interpret information from picture graphs	• Comparing • Classifying • Identifying relationships • Sequencing	• Pupil Textbook 2B, pp 102 to 105 • Practice Book 2D, pp 25 to 30 • Teacher's Guide 2B, pp 172 to 175
3	**(3) More graphs** Pupils will be able to: • interpret graphs related to scale, make comparisons and find sums and differences • solve problems using picture graphs involving two variables	• Comparing • Classifying • Identifying relationships • Sequencing • Deduction • Inference	• Pupil Textbook 2B, pp 106 to 107 • Practice Book 2D, pp 31 to 34 • Teacher's Guide 2B, pp 176 to 177
3	*Put On Your Thinking Caps!* Pupils will be able to: • read, understand and interpret the information in the picture graph given • use the given information to answer and explain higher order thinking skills questions	• Comparing • Classifying • Identifying relationships • Sequencing • Deduction • Inference	• Pupil Textbook 2B, pp 108 to 109 • Practice Book 2D, pp 35 to 36 • Teacher's Guide 2B, pp 178 to 179
	Review 6		• Practice Book 2D, pp 37 to 42
Summative assessment opportunity			
Assessment Book 2, Test 7, pp 83 to 91			

Unit 16: Lines and Surfaces

Week	Learning Objectives	Thinking Skills	Resources
4	**(1) Straight lines and curves** Pupils will be able to: • identify and differentiate straight lines and curves • use a ruler and pencil to draw straight lines • use a pencil to draw curves • use 'finger-tracing' to feel and tell whether a line is a curve or a straight line • identify straight lines and curves in pictures and 3D shapes • draw pictures with only straight lines, pictures with only curves or pictures with straight lines and curves *Let's Explore!* Pupils will be able to create pictures with straight lines and curves.	• Comparing • Classifying • Identifying relationships • Visualising	• Pupil Textbook 2B, pp 110 to 114 • Practice Book 2D, pp 43 to 48 • Teacher's Guide 2B, pp 194 to 198
4 – 5	**(2) Flat surfaces** Pupils will be able to: • differentiate between a flat surface and a curved surface by moving their hand over the surfaces • identify 3D objects that have flat surfaces • count the number of flat surfaces of a given set of geometrical shapes • find objects that have flat surfaces	• Comparing • Classifying • Visualising	• Pupil Textbook 2B, pp 115 to 118 • Practice Book 2D, pp 49 to 52 • Teacher's Guide 2B, pp 199 to 202
5	*Put On Your Thinking Caps!* Pupils will be able to: • identify and count the number of curves in pictures • identify objects with curves that match	• Spatial visualisation	• Pupil Textbook 2B, p 119 • Practice Book 2D, p 53 • Teacher's Guide 2B, p 203

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Unit 17: Shapes and Patterns

Week	Learning Objectives	Thinking Skills	Resources
5 – 6	**(1) 2D shapes** Pupils will be able to: • recognise a semicircle as half a circle and a quarter circle as one quarter of a circle • recognise things with semicircular shapes and things with quarter circle shapes • recognise semicircles and quarter circles in composite shapes • make pictures using shapes including semicircles and quarter circles • make pictures from cut-out shapes • draw shapes • copy shapes onto square dotty paper • copy shapes onto squared paper	• Visualising shapes	• Pupil Textbook 2B, pp 120 to 128 • Practice Book 2D, pp 55 to 66 • Teacher's Guide 2B, pp 212 to 220
6	**(2) 3D shapes** Pupils will be able to: • recognise, identify and name the 3D shapes: cube, cuboid, cone and cylinder • identify and name the 3D shapes used in making a given model • make models using the 3D shapes	• Visualising shapes	• Pupil Textbook 2B, pp 129 to 131 • Practice Book 2D, pp 67 to 68 • Teacher's Guide 2B, pp 221 to 223
6	**(3) Making patterns** Pupils will be able to: • identify patterns using the attributes: size, shape, colour and orientation • identify shapes in repeating sequences • identify missing shapes from patterns • explain a pattern and continue the pattern • make simple repeating patterns using 1 or 2 attributes and explain how they made the pattern • make new patterns with the given basic shapes	• Classifying • Comparing • Identifying patterns and shapes • Spatial visualisation	• Pupil Textbook 2B, pp 132 to 135 • Practice Book 2D, pp 69 to 71 • Teacher's Guide 2B, pp 224 to 227
6	*Put On Your Thinking Caps!* Pupils will be able to use tangram pieces to make a square.	• Comparing • Spatial visualisation	• Pupil Textbook 2B, p 136 • Practice Book 2D, pp 73 to 74 • Teacher's Guide 2B, p 228
	Revision 2		• Practice Book 2D, pp 75 to 88

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Summative assessment opportunities

Assessment Book 2, Test 8, pp 93 to 100
For extension, Assessment Book 2, Challenging Problems 4, pp 101 to 102
Assessment Book 2, Check-up 4, pp 103 to 116