

# PRIMARY MATHS SERIES

# SCHEME OF WORK – YEAR 2



This scheme of work is taken from the Maths — No Problem! Primary Maths Series, which is fully aligned with the 2014 English national curriculum for maths. It outlines the content and topic order of the series and indicates the level of depth needed to teach maths for mastery. It can also help you and your school to plan and monitor progress.

## A TRIED AND TESTED STRUCTURE

Unlike many free schemes of work, the Maths — No Problem! syllabus is based on the model developed in Singapore, which has been tested and refined over the last 30 years.

- Founded on the learning theories of Piaget, Dienes, Bruner, Skemp and Vygotsky.
- Adapted from the New Syllabus Primary Mathematics Series and approved by the Ministry of Education in Singapore.
- Co-authored by Dr Yeap Ban Har, a world-recognised expert in Singapore maths teaching.
- Fully aligned with the 2014 English national curriculum for maths.

## HOW TO USE OUR SCHEME OF WORK

Our scheme of work demonstrates the spiral approach used in our programme, which builds pupils' depth of understanding and mathematical fluency without the need for rote learning. Learning is presented in small-step, logical sequences organised into individual lessons with a title indicating the focus of learning for that lesson. The sequence of lessons is carefully organised with clear lines of progression.

This scheme of work provides:

- An overview of the national curriculum topics covered during the school year by term.
- A full lesson breakdown for each national curriculum topic and the learning objective for each lesson.

The topics are colour coded to reflect the national curriculum content domain strands. This also allows you to see when the different topics are introduced and revisited.

Please note that the time allocated to each topic is only provided as a guide and is not meant to be prescriptive. The concepts are broken down into a number of lessons, which offer small-step progression for the most struggling of learners. As such, teachers can use their professional judgement to combine two consecutive lessons into one session as appropriate for their learners. Though teachers can merge lessons within a chapter, we do not recommend skipping or combining chapters.

## WHAT OTHER SUPPORT IS AVAILABLE

The scheme of work provides a researched structure, which is ideal for teachers who are confident teaching maths for mastery and have received Maths — No Problem! professional development.

Schools that don't always have the time to create their own lesson content should consider using our Primary Maths Series textbooks and workbooks. The series provides carefully varied exercises, which are designed to deepen pupils' understanding, and is complemented by an online Teacher Guide, which provides a step-by-step guide to each lesson, including assessment and differentiation support.

For a free trial of our Primary Maths Series go to [www.mathsnoproblem.co.uk/free](http://www.mathsnoproblem.co.uk/free)

Phone +44 (0) 1892 537 706

 MathsNoProblem.com

 @MathsNoProblem

 facebook.com/MathsNoProblem

# PRIMARY MATHS SERIES – YEAR 2 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	<b>Number and Place Value: Numbers to 100</b> <small>LESSON BREAKDOWN</small>	<b>Statistics: Picture Graphs</b> <small>LESSON BREAKDOWN</small>	<b>Measurement: Time</b> <small>LESSON BREAKDOWN</small>  <b>Measurement: Volume</b> <small>LESSON BREAKDOWN</small>
Week 2		<b>Mid-year (A) Tests and Remediation</b>	
Week 3	<b>Calculations: Addition and Subtraction</b> <small>LESSON BREAKDOWN</small>	<b>Calculations: More Word Problems</b> <small>LESSON BREAKDOWN</small>	
Week 4		<b>Measurement: Money</b> <small>LESSON BREAKDOWN</small>	<b>SATs</b>
Week 5	<b>Calculations: Multiplication of 2, 5 and 10</b> <small>LESSON BREAKDOWN</small>		<b>Geometry – Properties of Shapes: 2-D Shapes</b> <small>LESSON BREAKDOWN</small>
Week 6			
Week 7	<b>Calculations: Multiplication and Division of 2, 5 and 10</b> <small>LESSON BREAKDOWN</small>	<b>Geometry – Properties of Shapes: 3-D Shapes</b> <small>LESSON BREAKDOWN</small>	<b>Revision and End-of-year (B) Tests</b>
Week 8			
Week 9	<b>Measurement: Length</b> <small>LESSON BREAKDOWN</small>	<b>Fractions: Fractions</b> <small>LESSON BREAKDOWN</small>	<b>Review and Revisit Topics</b>
Week 10			
Week 11	<b>Measurement: Mass</b> <small>LESSON BREAKDOWN</small>		
Week 12	<b>Measurement: Temperature</b> <small>LESSON BREAKDOWN</small>	<b>Review and Revisit Topics</b>	

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Number and Place Value: Numbers to 100

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 1</b> – Numbers to 100	Lesson 1 – Counting to 100	To count numbers up to 100 using concrete objects: counting up by ones and tens.
	Lesson 2 – Place Value	To understand each digit in a number has its own value.
	Lesson 3 – Comparing Numbers	To be able to compare numbers using place-value knowledge gained from previous lessons.
	Lesson 4 – Number Bonds	To use the number bond strategy to deepen understanding of place value.
	Lesson 5 – Number Patterns	To count in ones and tens; to introduce boundary crossing using tens and ones.
	Lesson 6 – Number Patterns	To recognise and describe patterns with more complex numbers, in particular 3 and 5.
	Chapter consolidation	To use place-value knowledge to think about the effects of each digit in a number.
	1 consolidation day	To be used if lessons take longer than expected or a topic needs to be revisited.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Calculations: Addition and Subtraction

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 2 – Addition and Subtraction</b>	Lesson 1 – Simple Adding	To be able to add a 1-digit number to a 2-digit number without regrouping the ones.
	Lesson 2 – Simple Adding	To add tens by recognising its relationship to adding ones.
	Lesson 3 – Simple Adding	To add 2-digit numbers where one is a multiple of 10.
	Lesson 4 – Simple Adding	To add with tens and ones where the ones are both more than zero.
	Lesson 5 – Adding with Renaming	To add 1-digit numbers to a 2-digit number resulting in renaming of ones.
	Lesson 6 – Adding with Renaming	To add two 2-digit numbers where renaming is expected.
	Lesson 7 – Simple Subtracting	To subtract ones from a 2-digit number.
	Lesson 8 – Simple Subtracting	To subtract 2-digit multiples of 10 from 2-digit multiples of 10.
	Lesson 9 – Simple Subtracting	To subtract tens from a 2-digit number with the ones being more than zero.
	Lesson 10 – Simple Subtracting	To subtract a 2-digit number by another 2-digit number.
	Lesson 11 – Subtracting with Renaming	To subtract a 2-digit number by a 1-digit number with renaming.
	Lesson 12 – Subtracting with Renaming	To subtract a 2-digit number by another 2-digit number where renaming has to occur.
	Lesson 13 – Addition of Three Numbers	To add three 1-digit numbers.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Calculations: Multiplication of 2, 5 and 10

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 3</b> <b>– Multiplication</b> <b>of 2, 5 and 10</b>	Lesson 1 – Multiplication as Equal Groups	To realise that multiplication is the same as repeated addition with equal groups.
	Lesson 2 – 2 Times Table	To focus on understanding and learning the 2 times table.
	Lesson 3 – 2 Times Table	To use concrete materials and pictorial representations to multiply by 2.
	Lesson 4 – 5 Times Table	To cover the basics of the 5 times table and to highlight multiplication visually as equal groups.
	Lesson 5 – 5 Times Table	To recall and use the 5 times table.
	Lesson 6 – 10 Times Table	To introduce the 10 times table by focusing on the numbers found in the 10 times table.
	Lesson 7 – 10 Times Table	To look at the 10 times table in more detail by looking at patterns and relationships.
	Lesson 8 – Multiplying by 2, 5 and 10	To investigate links between the 2, 5 and 10 times tables. To understand commutative law.
	Lesson 9 – Multiplying by 2, 5 and 10	To use knowledge of the 2, 5 and 10 times tables to further investigate commutative law.
	Lesson 10 – Solving Word Problems	To use the 2, 5 and 10 times tables to solve word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Calculations: Multiplication and Division of 2, 5 and 10

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 4</b> – <b>Multiplication and</b> <b>Division of 2, 5 and 10</b>	Lesson 1 – Grouping	To understand that grouping is a way of dividing.
	Lesson 2 – Sharing	To be able to divide by sharing an amount.
	Lesson 3 – Dividing by 2	To be able to divide by 2. The two strategies used here are splitting into groups of $x$ and splitting into equal groups of many.
	Lesson 4 – Dividing by 5	To be able to divide by 5 and identify links with multiplying by 5.
	Lesson 5 – Dividing by 10	To be able to divide by 10 and identify links with multiplying by 10.
	Lesson 6 – Multiplication and Division	To use multiplication and division skills to identify family facts in a number sentence.
	Lesson 7 – Solving Word Problems	To understand and solve word problems which require the use of the multiplication and division skills covered in this chapter.
	Lesson 8 – Odd and Even Numbers	To be able to link whether odd or even numbers can be divisible by 2, 5 or 10.
	Chapter consolidation	To use multiplication and division knowledge in problem solving and to create equations from questions.
	1 consolidation day	To be used if lessons take longer than expected or a topic needs to be revisited.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Measurement: Length

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 5 – Length</b>	Lesson 1 – Measuring Length in Metres	To measure length in metres.
	Lesson 2 – Measuring Length in Centimetres	To measure length in centimetres.
	Lesson 3 – Comparing Length in Metres	To be able to compare length for objects using ‘greater than’ and ‘less than’ symbols.
	Lesson 4 – Comparing Length in Centimetres	To be able to compare different lengths using centimetres as the unit of measure.
	Lesson 5 – Comparing the Length of Lines	To be able to compare and measure various line lengths: both straight and curvy.
	Lesson 6 – Solving Word Problems	To be able to solve problems involving measurement in the context of word problems.
	Lesson 7 – Solving Word Problems	To be able to solve addition and multiplication word problems involving measurement.
	Lesson 8 – Solving Word Problems	To be able to solve addition and division word problems involving measurement.
	Chapter consolidation	To practise various concepts covered in the chapter.
	1 consolidation day	To be used if lessons take longer than expected or a topic needs to be revisited.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Measurement: Mass

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 6</b> – Mass	Lesson 1 – Measuring Mass in Kilograms	To understand that mass is measured in kilograms and by using weighing scales.
	Lesson 2 – Measuring Mass in Grams	To be able to measure mass in grams and to understand that it is a smaller unit of measure than a kilogram.
	Lesson 3 – Measuring Mass in Grams	To be able to measure mass accurately in grams using weighing scales.
	Lesson 4 – Comparing Masses of Two Objects	To be able to compare the mass of two different objects accurately.
	Lesson 5 – Comparing the Mass of Three Objects	To be able to compare the mass of three objects and use the appropriate vocabulary.
	Lesson 6 – Solving Word Problems	To solve word problems in the context of mass.
	Lesson 7 – Solving More Word Problems	To solve word problems involving mass.
	Chapter consolidation	To practise various concepts covered in the chapter.



# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 2A

### Measurement: Temperature

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7 – Temperature	Lesson 1 – Reading Temperature	To be able to accurately read temperature in Celsius.
	Lesson 2 – Estimating temperature	To be able to estimate temperature and to read thermometers to confirm the estimate.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 2A

### Statistics: Picture Graphs

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 8</b> – <b>Picture Graphs</b>	Lesson 1 – Reading Picture Graphs	To be able to read a picture graph with confidence.
	Lesson 2 – Reading Picture Graphs	To be able to read and interpret a picture graph with confidence.
	Lesson 3 – Reading Picture Graphs	To be able to read and interpret a picture graph where the value of the picture can represent more than 1.
	Lesson 4 – Reading Picture Graphs	To be able to read and interpret a picture graph where the value of the picture can represent more than 1.
	Lesson 5 – Reading Picture Graphs	To be able to read, interpret and create a picture graph where the value of the picture can represent more than 1.
	Chapter consolidation	To practise various concepts covered in the chapter.
<b>Week 2</b>	<b>MID-YEAR (A) TESTS AND REMEDIATION</b>	

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 2B

### Calculations: More Word Problems

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 9</b> – <b>More Word Problems</b>	Lesson 1 – Solving Word Problems	To decide when it is appropriate to add and/or subtract when solving word problems; to improve the use of bar modelling and decision making based on visual representations.
	Lesson 2 – Solving Word Problems	To use the bar model method to solve word problems looking at the difference between two amounts.
	Lesson 3 – Solving Word Problems	To solve multi-step word problems using bar modelling; to use more than one bar model in a problem to work out the answer.
	Lesson 4 – Solving Word Problems	To use bar modelling to solve multi-step word problems involving unknown quantities.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 2B

### Measurement: Money

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 10 – Money</b>	Lesson 1 – Writing Amounts of Money	To identify standard UK coins and notes and write their names.
	Lesson 2 – Counting Money	To count notes in sequences of 5 and 10; to recognise the value of notes by appearance.
	Lesson 3 – Counting Money	To count coins in sequences of their value; to recognise the value of coins by appearance.
	Lesson 4 – Counting Money	To represent amounts of money using coins and notes; to count coins and notes using their denominations.
	Lesson 5 – Showing Equal Amounts of Money	To create equal amounts of money using different coins.
	Lesson 6 – Exchanging Money	To exchange denominations of money for different coins.
	Lesson 7 – Comparing Amounts of Money	To compare different amounts of money using coins.
	Lesson 8 – Calculating Total Amount	To add money together to determine the total amount.
	Lesson 9 – Calculating Change	To calculate change from £100 or less; to use the bar model approach to represent amounts of money.
	Lesson 10 – Solving Word Problems	To solve more complex word problems using bar modelling as a primary method.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 2B

### Geometry – Properties of Shapes: 2-D Shapes

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 11</b> <b>– 2-D Shapes</b>	Lesson 1 – Identifying Sides	To identify the number of sides on basic 2-D shapes.
	Lesson 2 – Identifying Vertices	To identify and count the vertices in regular polygons.
	Lesson 3 – Identifying Lines of Symmetry	To identify lines of symmetry in basic 2-D shapes.
	Lesson 4 – Making Figures	To construct shapes using pattern blocks that have lines of symmetry.
	Lesson 5 – Sorting Shapes	To sort shapes based on number of sides, vertices and other factors.
	Lesson 6 – Drawing Shapes	To draw shapes using square grid and dot grid paper; to copy shapes from sight using grid paper.
	Lesson 7 – Making Patterns	To recognise patterns of familiar shapes and colours of up to three objects.
	Lesson 8 – Describing Patterns	To describe patterns using ordinal numbers and shape names.
	Lesson 9 – Moving Shapes	To move shapes on a square grid from one position to another using common language.
	Lesson 10 – Turning Shapes	To turn objects using quarter, half and three-quarter turns both clockwise and anticlockwise on a square grid.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 2B

### Geometry – Properties of Shapes: 3-D shapes

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 12</b> <b>– 3-D Shapes</b>	Lesson 1 – Recognising Three-Dimensional Shapes	To recognise 3-D shapes by identifying their properties.
	Lesson 2 – Describing Three-Dimensional Shapes	To describe 3-D shapes and classify them using faces, vertices and edges.
	Lesson 3 – Describing Three-Dimensional Shapes	To describe 3-D shapes based on the number of faces and the 2-D shapes of these faces; to construct nets of shapes into 3-D shapes.
	Lesson 4 – Grouping Three-Dimensional Shapes	To group 3-D shapes by similar properties.
	Lesson 5 – Forming Three-Dimensional Structures	To form 3-D structures using multiple 3-D objects.
	Lesson 6 – Making Patterns	To make and recognise patterns using 3-D shapes.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 2B

### Fractions: Fractions

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 13</b> – Fractions	Lesson 1 – Making Equal Parts	To make equal parts from a whole using simple and complex methods.
	Lesson 2 – Showing Half and Quarter	To show and recognise halves and quarters.
	Lesson 3 – Showing Quarters	To show and identify more than one quarter using materials and pictures.
	Lesson 4 – Showing Thirds	To show and identify thirds in shapes; to use the vocabulary 'numerator' and 'denominator' when referring to fractions.
	Lesson 5 – Naming Fractions	To identify and name fractions by looking at the number of pieces and how many are shaded in.
	Lesson 6 – Making Equal Fractions	To recognise equivalent fractions in quarters, thirds and halves.
	Lesson 7 – Comparing and Ordering Fractions	To compare and order similar fractions by looking at the size of the pieces shaded.
	Lesson 8 – Comparing and Ordering Fractions	To compare and order fractions with different denominators.
	Lesson 9 – Counting Wholes and Parts	To count the number of wholes and parts to form mixed numbers.
	Lesson 10 – Counting in Halves	To count in halves and place halves onto a number line using pictures.
	Lesson 11 – Counting in Quarters	To count in quarters and place quarters onto a number line using pictures.
	Lesson 12 – Counting in Thirds	To count in thirds and place thirds onto a number line using pictures.
	Lesson 13 – Finding Part of a Set	To find fractions (half) of whole numbers.
	Lesson 14 – Finding Part of a Set	To find a fraction (third) of a whole number.
	Lesson 15 – Finding Part of a Set	To find a fraction (quarter) of a number.
	Lesson 16 – Finding Part of a Quantity	To find a fraction (half, third, quarter) of a quantity (length).
	Chapter consolidation	To practise various concepts covered in the chapter.
<b>Week 12</b>	<b>REVIEW AND REVISIT TOPICS</b>	

# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 2B

### Measurement: Time

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 14</b> – Time	Lesson 1 – Telling and Writing Time to 5 Minutes	To tell and write time to 5-minute intervals.
	Lesson 2 – Telling and Writing Time	To tell time to 5-minute intervals and to the hour.
	Lesson 3 – Sequencing Events	To sequence events of the day by looking at analogue clocks and pictures.
	Lesson 4 – Drawing Clock Hands	To draw hands on an analogue clock to show the correct time.
	Lesson 5 – Finding Durations of Time	To find the duration of time using an analogue clock in 30- and 60-minute intervals.
	Lesson 6 – Finding Durations of Time	To find the duration of time to 5-minute intervals.
	Lesson 7 – Finding Ending Times	To find the ending of a duration of time from different 5-minute starting points.
	Lesson 8 – Finding Ending Times	To find the ending time in intervals of 5 minutes from delayed starts.
	Lesson 9 – Finding Starting Times	To find the starting time from 30-minute and 1-hour interval durations.
	Lesson 10 – Finding Starting Times	To find the start of multiple durations of time using a common end time.
	Lesson 11 – Comparing Time	To compare durations of time from the least amount to the most amount of time and vice versa.
	Chapter consolidation	To practise various concepts that were covered in the chapter



# PRIMARY MATHS SERIES – YEAR 2 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 2B

### Measurement: Volume

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 15</b> – Volume	Lesson 1 – Comparing Volume	To compare volume in different-sized containers using the terms 'greater than,' 'less than,' 'greatest' and 'least.'
	Lesson 2 – Comparing Volume	To compare the volume of different containers using non-standard units.
	Lesson 3 – Measuring Volume in Litres	To measure volume using litres and determine whether an amount is 'more than,' 'less than' or 'equal to' a litre.
	Lesson 4 – Measuring Volume in Millilitres	To measure volume using millilitres and litres; to determine how many ml there are in 1 l.
	Lesson 5 – Solving Word Problems	To solve word problems involving bar models with litres as the standard unit.
	Lesson 6 – Solving Word Problems	To solve word problems using ml and l, including problems involving difference.
	Lesson 7 – Solving Word Problems	To solve word problems involving volume and multiplication.
	Chapter consolidation	To practise various concepts covered in the chapter.
<b>Week 4</b>	<b>SATs</b>	
<b>Weeks 5 to 8</b>	<b>REVIEW AND REVISIT TOPICS</b>	
<b>Week 9</b>	<b>REVISION AND END-OF-YEAR (B) TESTS</b>	
<b>Weeks 10 to 12</b>	<b>REVIEW AND REVISIT TOPICS</b>	