

# PRIMARY MATHS SERIES SCHEME OF WORK – YEAR 4



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

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## PRIMARY MATHS SERIES - YEAR 4 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM	
Week 1	Number and Place Value:	Calculations: Further Multiplication and Division  LESSON BREAKDOWN	Measurement: Money  LESSON BREAKDOWN	
Week 2	Numbers to 10 000  LESSON BREAKDOWN			
Week 3				
Week 4		Statistics: Graphs LESSON BREAKDOWN	Measurement: Mass,  Volume and Length  LESSON BREAKDOWN	
Week 5	Calculations: Addition and Subtraction within 10 000 LESSON BREAKDOWN	Fractions, Decimals and Percentages: Fractions  LESSON BREAKDOWN		
Week 6			Measurement: Area of Figures	
Week 7			LESSON BREAKDOWN	
Week 8	Calculations: Multiplication and Division  LESSON BREAKDOWN	Measurement: Time  LESSON BREAKDOWN	Geometry – Properties of Shapes: Geometry	
Week 9		Mid-year (A) Tests and Remediation	LESSON BREAKDOWN	
Week 10		Fractions, Decimals and Percentages: Decimals  LESSON BREAKDOWN	Geometry - Position and Direction: Position and Movement LESSON BREAKDOWN	
Week 11			Number and Place Value: Roman Numerals  LESSON BREAKDOWN	
Week 12	Calculations: Further Multiplication and Division  LESSON BREAKDOWN		End-of-year (B) Tests and Remediation	



#### **AUTUMN TERM - TEXTBOOK 4A** Number and Place Value: Numbers to 10 000 Maths — No Problem! **Lesson Name Lesson Objective Book Reference** Chapter 1 Lesson 1 - Counting in Hundreds To count in hundreds and twenty-fives. - Numbers to 10 000 and Twenty-Fives Lesson 2 - Counting in Thousands To count in thousands. Lesson 3 - Counting in Thousands, To count in thousands, hundreds, tens and ones. Hundreds. Tens and Ones Lesson 4 - Using Place Value To use an understanding of place value to count. To understand place value in a 4-digit number. Lesson 5 - Using Place Value Lesson 6 - Comparing To compare and order numbers. and Ordering Numbers Lesson 7 - Comparing To compare and order 4-digit numbers. and Ordering Numbers Lesson 8 - Making Number Patterns To make number patterns (100, 10, 1 more and less). Lesson 9 - Making Number Patterns To make number patterns (4-digit numbers). Lesson 10 - Counting in Sixes, To count in sixes, sevens and nines. Sevens and Nines To round numbers to the nearest 1000. Lesson 11 - Rounding Numbers Lesson 12 - Rounding Numbers To round numbers to the nearest 10, 100 and 1000. Lesson 13 - Rounding Numbers To round numbers to estimate. to Estimate Lesson 14 - Rounding Numbers To round numbers to estimate. to Estimate Chapter consolidation To practise various concepts covered in the chapter.



AUTUMN TERM – TEXTBOOK 4A		
Calculations: Addition and Subtraction		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2	Lesson 1 - Finding Sums	To find totals and sums.
- Addition and Subtraction within	Lesson 2 – Adding without Renaming	To add without renaming.
10 000	Lesson 3 – Adding with Renaming	To add with renaming (in the ones column).
	Lesson 4 – Adding with Renaming	To add with renaming (in tens and ones).
	Lesson 5 – Adding with Renaming	To add with renaming (in hundreds, tens and ones).
	Lesson 6 – Adding Using Mental Strategies	To add using mental strategies (making tens, hundreds and thousands).
	Lesson 7 – Adding Using Mental Strategies	To add using mental strategies.
	Lesson 8 - Finding Differences	To find the difference.
	Lesson 9 – Subtracting without Renaming	To subtract without renaming (column subtraction).
	Lesson 10 – Subtracting with Renaming	To subtract with renaming (in tens and ones).
	Lesson 11 – Subtracting with Renaming	To subtract with renaming (in hundreds, tens and ones).
	Lesson 12 – Subtracting with Renaming	To subtract with renaming (in hundreds, tens and ones).
	Lesson 13 – Subtracting with Renaming	To subtract with renaming.
	Lesson 14 – Subtracting Using Mental Strategies	To subtract using mental strategies.
	Lesson 15 – Solving Word Problems	To solve addition and subtraction word problems.
	Lesson 16 - Solving Word Problems	To solve word problems (addition and subtraction).
	Lesson 17 - Solving Word Problems	To solve multi-step word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.
	2 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.



AUTUMN TERM -	AUTUMN TERM – TEXTBOOK 4A		
Calculations: Mult	Calculations: Multiplication and Division		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
Chapter 3	Lesson 1 – Multiplying by 6	To multiply by 6.	
<ul><li>Multiplication and Division</li></ul>	Lesson 2 – Multiplying by 7	To multiply by 7.	
	Lesson 3 – Multiplying by 9	To multiply by 9.	
	Lesson 4 – Multiplying by 9	To multiply by 9 (relational understanding).	
	Lesson 5 – Multiplying by 11	To multiply by 11.	
	Lesson 6 – Multiplying by 11	To multiply by 11.	
	Lesson 7 – Multiplying by 12	To multiply by 12.	
	Lesson 8 – Dividing by 6	To divide by 6.	
	Lesson 9 – Dividing by 7	To divide by 7.	
	Lesson 10 - Dividing by 9	To divide by 9.	
	Lesson 11 – Multiplying and Dividing by 11 and 12	To multiply and divide by 11 and 12.	
	Lesson 12 - Dividing with Remainder	To divide with remainders.	
	Lesson 13 - Solving Word Problems	To solve word problems involving multiplication and division.	
	Lesson 14 - Solving Word Problems	To solve problems involving multiplication and division.	
	Lesson 15 - Solving Word Problems	To solve multi-step problems (in the context of measures).	
	Lesson 16 - Solving Word Problems	To solve problems involving multiplication and division (all possibilities).	
	Lesson 17 – Solving Word Problems	To solve problems involving multiplication and division (multi-step).	
	Lesson 18 - Solving Word Problems	To solve problems involving multiplication and division (scaling/comparison).	
	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.	



AUTUMN TERM - TEXTBOOK 4A			
Calculations: Furt	Calculations: Further Multiplication and Division		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
Chapter 4	Lesson 1 – Multiplying by 0 and 1	To multiply by 0 and 1.	
- Further Multiplication	Lesson 2 – Dividing by 1	To divide by 1.	
and Division	Lesson 3 – Multiplying the Same Two Numbers	To understand commutativity.	
	Lesson 4 – Multiplying Three Numbers	To multiply three numbers.	
	Lesson 5 – Multiplying Multiples of 10	To multiply with multiples of 10.	



SPRING TERM - T	SPRING TERM - TEXTBOOK 4A		
Calculations: Furt	Calculations: Further Multiplication and Division (continued from Autumn Term)		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
Chapter 4 - Further	Lesson 6 – Multiplying 2-Digit Numbers	To multiply 2-digit numbers.	
Multiplication and Division	Lesson 7 – Multiplying 2-Digit Numbers	To multiply 2-digit numbers with renaming.	
	Lesson 8 – Multiplying Multiples of 100	To multiply multiples of 100.	
	Lesson 9 – Multiplying 3-Digit Numbers	To multiply 3-digit numbers.	
	Lesson 10 – Multiplying 3-Digit Numbers	To multiply 3-digit numbers (renaming).	
	Lesson 11 – Multiplying 3-Digit Numbers	To multiply 3-digit numbers.	
	Lesson 12 - Dividing 2-Digit Numbers	To divide 2-digit numbers.	
	Lesson 13 – Dividing 3-Digit Numbers	To divide 3-digit numbers.	
	Lesson 14 - Dividing 2-Digit Numbers	To divide 2-digit numbers with remainders.	
	Lesson 15 - Dividing 3-Digit Numbers	To divide 3-digit numbers.	
	Lesson 16 - Dividing 3-Digit Numbers	To divide 3-digit numbers with remainders.	
	Lesson 17 - Solving Word Problems	To solve multiplication and division word problems.	
	Lesson 18 – Solving Word Problems	To solve multiplication and division word problems (multi-step).	
	Chapter consolidation	To practise various concepts covered in the chapter.	



SPRING TERM - TEXTBOOK 4A			
Statistics: Graphs	Statistics: Graphs		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
Chapter 5 - Graphs	Lesson 1 – Drawing and Reading Picture Graphs and Bar Graphs	To draw and read picture graphs and bar graphs.	
	Lesson 2 – Drawing and Reading Bar Graphs	To draw and read bar graphs.	
	Lesson 3 – Drawing and Reading Line Graphs	To draw and read line graphs.	
	Lesson 4 – Drawing and Reading Line Graphs	To draw and read a line graph.	
	Lesson 5 – Drawing and Reading Line Graphs	To draw and read line graphs (drawing focus).	
	Chapter consolidation	To practise various concepts covered in the chapter.	



#### **SPRING TERM - TEXTBOOK 4A** Fractions, Decimals and Percentages: Fractions Maths — No Problem! **Lesson Objective Lesson Name** Book Reference Lesson 1 - Counting in Hundredths To count in hundredths. Chapter 6 - Fractions Lesson 2 - Writing Mixed Numbers To write mixed number fractions. Lesson 3 - Showing Mixed Numbers To show mixed number fractions on a number line. on a Number Line Lesson 4 - Finding Equivalent To find equivalent fractions. Fractions Lesson 5 - Finding Equivalent To find equivalent fractions (further practise). Fractions Lesson 6 - Simplifying To simplify mixed number fractions. Mixed Numbers Lesson 7 - Simplifying To simplify improper fractions. **Improper Fractions** Lesson 8 - Adding Fractions To add fractions. To add fractions (recording answers as a mixed number). Lesson 9 - Adding Fractions Lesson 10 - Adding Fractions To add fractions (simplest form). Lesson 11 - Subtracting Fractions To subtract fractions. Lesson 12 - Subtracting Fractions To subtract fractions (equivalence). Lesson 13 - Solving Word Problems To solve word problems. Chapter consolidation To practise various concepts covered in the chapter.

To be used if lessons take longer than expected or a topic needs to be revisited.

1 consolidation day



SPRING TERM - TEXTBOOK 4A		
Measurement: Tim	ie	
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7: Time	Lesson 1 - Telling Time on a 24-Hour Clock	To tell the time on a 24-hour clock.
	Lesson 2 – Changing Time in Minutes to Seconds	To convert between minutes and seconds.
	Lesson 3 – Changing Time in Hours to Minutes	To convert between hours and minutes.
	Lesson 4 – Solving Problems on Duration of Time	To solve time problems.
	Lesson 5 – Changing Years to Months and Weeks to Days	To convert between units of time.
	Lesson 6 – Solving Word Problems	To solve word problems (duration).
	Chapter consolidation	To practise various concepts covered in the chapter.
Week 9	MID-YEAR (A) TESTS AND REMEDIATION	



#### **SPRING TERM - TEXTBOOK 4B**

### Fractions, Decimals and Percentages: Decimals

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8	Lesson 1 – Writing Tenths	To record tenths.
– Decimals	Lesson 2 – Writing Tenths	To record in tenths.
	Lesson 3 – Writing Tenths	To record in tenths (in different ways).
	Lesson 4 – Writing Hundredths	To write hundredths.
	Lesson 5 – Writing Hundredths	To write hundredths.
	Lesson 6 – Writing Hundredths	To write hundredths (in different ways).
	Lesson 7 – Writing Hundredths	To record hundredths.
	Lesson 8 - Writing Decimals	To write decimal numbers.
	Lesson 9 - Comparing and Ordering Decimals	To compare and order decimal numbers.
	Lesson 10 - Comparing and Ordering Decimals	To compare and order decimal numbers.
	Lesson 11 - Comparing and Ordering Decimals	To compare and order decimal numbers.
	Lesson 12 - Making Number Patterns	To create number sequences.
	Lesson 13 - Rounding Decimals	To round decimal numbers.
	Lesson 14 - Rounding Decimals	To round decimal numbers.
	Lesson 15 – Writing Fractions as Decimals	To write fractions as decimal numbers.
	Lesson 16 – Dividing Whole Numbers by 10	To divide whole numbers by 10.
	Lesson 17 – Dividing Whole Numbers by 100	To divide whole numbers by 100.
	Chapter consolidation	To practise various concepts covered in the chapter.



SUMMER TERM -	SUMMER TERM – TEXTBOOK 4B		
Measurement: Mo	Measurement: Money		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
Chapter 9 - Money	Lesson 1 – Writing Amounts of Money	To record amounts of money.	
	Lesson 2 – Writing Amounts of Money	To record amounts of money.	
	Lesson 3 - Comparing Amounts of Money	To compare total amounts of money.	
	Lesson 4 – Rounding Amounts of Money	To round to the nearest pound (whole number).	
	Lesson 5 – Solving Problems Involving Money	To solve money problems (addition and subtraction).	
	Lesson 6 – Solving Problems Involving Money	To solve money problems (multiplication).	
	Lesson 7 – Solving Problems Involving Money	To solve money problems (comparison).	
	Lesson 8 – Estimating Amounts of Money	To estimate amounts of money.	
	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.	



#### **SUMMER TERM - TEXTBOOK 4B** Measurement: Mass, Volume and Length Maths — No Problem! Lesson Name **Lesson Objective Book Reference** Lesson 1 - Measuring Mass Chapter 10 To measure mass. - Mass. Volume Lesson 2 - Measuring Mass To measure mass. and Length Lesson 3 - Converting Units of Mass To convert units of mass. To measure volume. Lesson 4 - Measuring Volume Lesson 5 - Measuring Volume To measure volume. Lesson 6 - Converting Units To convert units of volume. of Volume Lesson 7 - Measuring Height To measure height. Lesson 8 - Measuring Length To measure length. Lesson 9 - Converting Units To convert units of length. of Length Lesson 10 - Converting Units To convert units of length. of Length Lesson 11 - Measuring Perimeters To measure perimeter in centimetres and millimetres. in Different Units Lesson 12 - Solving Problems To solve problems in measurement (reading scales). Involving Scale Reading Chapter consolidation To practise various concepts covered in the chapter. 2 consolidation days To be used if lessons take longer than expected or a topic needs to be revisited.



SUMMER TERM -	SUMMER TERM – TEXTBOOK 4B		
Measurement: Are	Measurement: Area of Figures		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
Chapter 11 - Area of Figures	Lesson 1 – Measuring the Surface that an Object Covers	To find area (by measuring surface coverage).	
	Lesson 2 – Measuring Area	To measure area.	
	Lesson 3 – Measuring Area	To measure area (counting squares).	
	Lesson 4 - Measuring Area	To measure area (counting squares and half squares).	
	Lesson 5 – Measuring Area	To measure area (using multiplication).	
	Lesson 6 – Measuring Area	To measure area (shapes in different orientations).	
	Chapter consolidation	To practise various concepts covered in the chapter.	



#### **SUMMER TERM - TEXTBOOK 4B** Geometry - Properties of Shapes: Geometry Maths — No Problem! **Lesson Objective Lesson Name Book Reference** Lesson 1 - Knowing Types of Angles Chapter 12 To identify types of angles. - Geometry Lesson 2 - Comparing Angles To compare angles. Lesson 3 – Classifying Triangles To classify triangles. Lesson 4 - Classifying To classify quadrilaterals. Quadrilaterals Lesson 5 - Identifying To identify symmetrical figures. Symmetrical Figures Lesson 6 - Drawing Lines To draw lines of symmetry. of Symmetry Lesson 7 - Completing To draw symmetrical figures. Symmetrical Figures Lesson 8 - Making To make symmetrical figures. Symmetrical Figures Lesson 9 - Completing To complete symmetrical figures. Symmetrical Figures Lesson 10 - Sorting Shapes To sort shapes. To practise various concepts covered in the chapter. Chapter consolidation 1–2 consolidation days To be used if lessons take longer than expected or a topic needs to be revisited.



#### **SUMMER TERM - TEXTBOOK 4B**

#### Geometry - Position and Direction: Position and Movement

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13	Lesson 1 - Describing Position	To describe position.
<ul><li>Position and Movement</li></ul>	Lesson 2 - Describing Position	To describe position.
	Lesson 3 – Plotting Points	To plot coordinates.
	Lesson 4 - Describing Movements	To describe movements.
	Lesson 5 - Describing Movements	To describe movements (coordinates).
	Chapter consolidation	To practise various concepts covered in the chapter.



#### **SUMMER TERM - TEXTBOOK 4B**

#### Number and Place Value: Roman Numerals

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 14 - Roman Numerals	Lesson 1 – Writing Roman Numerals for 1 to 20	To write Roman numerals (to 20).
	Lesson 2 – Writing Roman Numerals to 100	To write Roman numerals to 100.
	Chapter consolidation	To practise various concepts covered in the chapter.
	2 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.
Week 12	END-OF-YEAR (B) TESTS AND REMEDIATION	