

# PRIMARY MATHS SERIES

# SCHEME OF WORK – YEAR 6



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)

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# PRIMARY MATHS SERIES – YEAR 6 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
<b>Week 1</b>	<b>Number and Place Value: Numbers to 10 Million</b> LESSON BREAKDOWN	<b>Measurement: Measurements</b> LESSON BREAKDOWN	<b>Statistics: Graphs and Averages</b> LESSON BREAKDOWN
<b>Week 2</b>	<b>Calculations: Four Operations on Whole Numbers</b> LESSON BREAKDOWN	<b>Word Problems</b> LESSON BREAKDOWN	
<b>Week 3</b>		<b>Mid-year (A) Tests and Remediation</b>	<b>Number and Place Value: Negative Numbers</b> LESSON BREAKDOWN
<b>Week 4</b>		<b>Fractions, Decimals and Percentages: Percentage</b> LESSON BREAKDOWN	<b>SATs</b>
<b>Week 5</b>		<b>Ratio and Proportion: Ratio</b> LESSON BREAKDOWN	<b>Measurement: Volume</b> LESSON BREAKDOWN
<b>Week 6</b>		<b>Fractions, Decimals and Percentages: Fractions</b> LESSON BREAKDOWN	<b>Algebra: Algebra</b> LESSON BREAKDOWN
<b>Week 7</b>	<b>Geometry – Position and Direction: Position and Movement</b> LESSON BREAKDOWN		
<b>Week 8</b>	<b>Statistics: Graphs and Averages</b> LESSON BREAKDOWN		
<b>Week 9</b>	<b>Fractions, Decimals and Percentages: Decimals</b> LESSON BREAKDOWN	<b>Measurement: Area and Perimeter</b> LESSON BREAKDOWN	<b>Revisit Topics</b>
<b>Week 10</b>		<b>Geometry – Properties and Shapes: Geometry</b> LESSON BREAKDOWN	<b>Revision and End-of-year (B) Tests</b>
<b>Week 11</b>		<b>Geometry – Position and Direction: Position and Movement</b> LESSON BREAKDOWN	<b>Revisit Topics</b>
<b>Week 12</b>	<b>Measurement: Measurements</b> LESSON BREAKDOWN	<b>Geometry – Position and Direction: Position and Movement</b> LESSON BREAKDOWN	

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 6A

### Number and Place Value: Numbers to 10 Million

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 1 – Numbers to 10 Million</b>	Lesson 1 – Reading and Writing Numbers to 10 Million	To create and identify numbers to 10 000 000 ; to write in numerals and words numbers to 10 000 000.
	Lesson 2 – Reading and Writing Numbers to 10 Million	To construct and record numbers to 10 000 000; to recognise the value of digits to 10 000 000.
	Lesson 3 – Reading and Writing Numbers to 10 Million	To recognise and construct numbers to 10 000 000 using an abacus; to recognise the value of digits in numbers to 10 000 000 and write numbers using numerals and words.
	Lesson 4 – Comparing Numbers to 10 Million	To compare numbers to 10 000 000 using place value.
	Lesson 5 – Comparing and Ordering Numbers to 10 Million	To compare and order numbers to 10 000 000; to create combinations of numbers using a fixed number of digits.
	Lesson 6 – Rounding Numbers	To round numbers to 10 000 000 to the nearest million, hundred thousand and ten thousand.
	Lesson 7 – Rounding Numbers	To round numbers to the nearest appropriate number up to and including millions; to determine when rounding is appropriate and to which value.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 6A

### Calculations: Four Operations on Whole Numbers

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 2</b> – Four Operations on Whole Numbers	Lesson 1 – Using Mixed Operations	To use multiple operations and create expressions from a picture; to use the order of operations to solve expressions.
	Lesson 2 – Using Mixed Operations	To create and solve expressions using the four operations.
	Lesson 3 – Multiplying by 2-Digit Numbers	To multiply numbers by multiples of 10; to use number bonds as a key strategy in multiplication.
	Lesson 4 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming; to use both number bonds and the column method as key strategies.
	Lesson 5 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming; to use both number bonds and the column method as key strategies.
	Lesson 6 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and pattern recognition as key strategies for multiplication.
	Lesson 7 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and the column method as key strategies.
	Lesson 8 – Estimating Products of Large Numbers	To estimate products of multiplying 3- and 4-digit numbers by a 2-digit numbers; to use knowledge of multiplication to create specific products.
	Lesson 9 – Dividing by 2-Digit Numbers	To divide 3-digit numbers by 2-digit numbers using a variety of strategies; to use number bonds, long division and bar models to facilitate division by 2-digit numbers.
	Lesson 10 – Dividing by 2-Digit Numbers	To divide 4-digit numbers by 2-digit numbers; to use number bonds and long division as the key strategies.
	Lesson 11 – Dividing by 2-Digit Numbers	To divide 4-digit numbers by 2-digit numbers using a variety of methods; to use number bonds, long and short division as key methods.
	Lesson 12 – Dividing by 2-Digit Numbers	To divide 3-digit numbers by 2-digit numbers giving rise to remainders; to use number bonds and long and short division as key strategies to solve division problems.
	Lesson 13 – Dividing by 2-Digit Numbers	To divide 4-digit numbers by 2-digit numbers giving rise to a remainder; to represent the remainder as part of a whole amount of money or decimal.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 6A

### Calculations: Four Operations on Whole Numbers (continued)

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 2</b> – Four Operations on Whole Numbers	Lesson 14 – Solving Word Problems	To use the bar model heuristic to solve word problems involving multiplication and division.
	Lesson 15 – Solving Word Problems	To solve word problems using division as the main strategy; to use pictorial representations to support word problems.
	Lesson 16 – Solving Word Problems	To solve word problems involving multiple operations, including multiplication and division.
	Lesson 17 – Finding Common Multiples	To find common multiples in real-life situations; to use common multiples in tandem with knowledge of time.
	Lesson 18 – Finding Common Multiples	To use common multiples to solve problems; to organise mathematical thinking into tables and lists.
	Lesson 19 – Finding Common Factors	To find the largest common factor of 3-digit numbers; to use multiplication and division to find largest common factors.
	Lesson 20 – Finding Common Factors	To find common factors using concrete materials.
	Lesson 21 – Finding Prime Numbers	To use prime numbers to create other numbers; to explore prime numbers above 100.
	Lesson 22 – Finding Prime Numbers	To explore prime numbers using concrete materials; to identify prime numbers using multiplication or division.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 6A

### Fractions, Decimals and Percentages: Fractions

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 3 – Fractions</b>	Lesson 1 – Simplifying Fractions	To use concrete materials to simplify fractions; to recognise equivalence in fractions to $\frac{1}{4}$ .
	Lesson 2 – Simplifying Fractions	To simplify fractions using division and common factors; to represent fractions using concrete materials and pictorial representations.
	Lesson 3 – Comparing and Ordering Fractions	To compare fractions and place them in order from smallest to largest.
	Lesson 4 – Comparing and Ordering Fractions	To compare and order fractions by finding common denominators.
	Lesson 5 – Comparing and Ordering Fractions	To compare and order fractions using common factors.
	Lesson 6 – Adding and Subtracting Fractions	Adding and subtracting fractions with different denominators; using pictorial representations to compare fractions and add/subtract.
	Lesson 7 – Adding and Subtracting Fractions	To add and subtract fractions of different denominators; to develop questions and word problems based on the information provided.
	Lesson 8 – Adding and Subtracting Fractions	To add and subtract fractions with different denominators.
	Lesson 9 – Adding and Subtracting Fractions	To add and subtract mixed numbers, including fractions with different denominators; to subtract from the whole and add the remainder back on.
	Lesson 10 – Adding and Subtracting Fractions	To add and subtract fractions with different denominators; to add and subtract mixed numbers.
	Lesson 11 – Multiplying Fractions	To multiply fractions using pictorial representations and abstract methods.
	Lesson 12 – Multiplying Fractions	To determine if the commutative law applies to fractions; to multiply fractions using concrete materials and pictorial representations.
	Lesson 13 – Multiplying Fractions	To use concrete materials to understand and solve the multiplication of fractions; to simplify equations using pattern blocks.
	Lesson 14 – Dividing a Fraction by a Whole Number	To divide a fraction by a whole number; to use pictorial representation to divide whole numbers into fractions.
	Lesson 15 – Dividing a Fraction by a Whole Number	To divide fractions by whole numbers using concrete materials and pictorial representations; to divide fractions when the numerator and divisor are not easily divisible.
	Lesson 16 – Dividing a Fraction by a Whole Number	To divide fractions by a whole number; to use pictorial representations to support division.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 6A

### Fractions, Decimals and Percentages: Decimals

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 4 – Decimals</b>	Lesson 1 – Writing and Reading Decimals	To read and write decimals to thousandths; to use concrete materials to represent decimals.
	Lesson 2 – Dividing Whole Numbers	To divide whole numbers by larger whole numbers; to use Base 10 materials to represent tenths, hundredths and thousandths.
	Lesson 3 – Dividing Whole Numbers	To divide whole numbers that give rise to decimals; to calculate decimal fraction equivalents using long division.
	Lesson 4 – Writing Fractions as Decimals	To convert fractions into decimals using bar models and long division.
	Lesson 5 – Writing Fractions as Decimals	To write fractions as decimals; to use long division as the key strategy for turning fractions into decimals.
	Lesson 6 – Multiplying Decimals	To multiply decimals by whole numbers using partitioning or the worded method to help find the solution.
	Lesson 7 – Multiplying Decimals	To multiply whole numbers that include a decimal by other whole numbers; to use partitioning and the worded method as key strategies.
	Lesson 8 – Multiplying Decimals	To multiply decimals by whole numbers, including regrouping and renaming.
	Lesson 9 – Multiplying Decimals	To multiply decimals by whole numbers using a variety of methods; to use the heuristic 'making a list' to help solve a problem.
	Lesson 10 – Dividing Decimals	To divide decimals using number bonds and number discs as the key strategies.
	Lesson 11 – Dividing Decimals	To divide decimals using bar models, number bonds and long division as key strategies, including regrouping and renaming.
	Lesson 12 – Multiplying a Decimal by a 2-Digit Whole Number	To multiply decimals by a 2-digit whole number using number discs and the column method.
	Lesson 13 – Dividing a Decimal by a 2-Digit Whole Number	To divide decimals by 2-digit numbers using number bonds and the worded method.
	Lesson 14 – Dividing a Decimal by a 2-Digit Whole Number	To divide decimals by 2-digit whole numbers using number bonds and the worded method.
Chapter consolidation	To practise various concepts covered in the chapter.	

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## AUTUMN TERM – TEXTBOOK 6A

### Measurement: Measurements

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 5</b> – <b>Measurements</b>	Lesson 1 – Converting Units of Length	To convert common measurements into metres, centimetres and millimetres.
	Lesson 2 – Converting Units of Length	To convert units of measure into different units; to use knowledge of decimals and fractions to help convert units.
	Lesson 3 – Converting Units of Length	To convert metres into kilometres as units of measure.
	Lesson 4 – Converting Units of Mass	To convert units of mass from grams to kilograms using decimals and fractions.
	Lesson 5 – Converting Units of Volume	To convert units of volume from millilitres to litres.



# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6A

### Measurement: Measurements (continued from Autumn term)

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 5</b> – <b>Measurements</b>	2 revision days	To revisit lessons 1–5.
	Lesson 6 – Converting Units of Time	To convert units of time from minutes to hours; to represent time using 24-hour notation.
	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 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6A

### Word Problems

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 6</b> – <b>Word Problems</b>	Lesson 1 – Solving Word Problems	To use bar models to solve word problems involving the four operations.
	Lesson 2 – Solving Word Problems	To use the bar model heuristic to solve word problems involving the four operations.
	Lesson 3 – Solving Word Problems	To use the bar model heuristic to solve complex word problems involving time.
	Lesson 4 – Solving Word Problems	To solve complex word problems using pictorial representation and the four operations.
	Lesson 5 – Solving Word Problems	To create and solve word problems that apply the bar model heuristic and working backwards as the main strategies.
	Lesson 6 – Solving Word Problems	To create and solve complex word problems using the four operations.
	Chapter consolidation	To practise various concepts covered in the chapter.
<b>Week 3</b>	<b>MID-YEAR (A) TESTS AND REMEDIATION</b>	

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6B

### Fractions, Decimals and Percentages: Percentage

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 7</b> – Percentage	Lesson 1 – Finding the Percentage of a Number	To find the percentage of a whole number using division and multiplication; to use bar modelling as a pictorial approach to calculating percentage.
	Lesson 2 – Finding the Percentage of a Quantity	To find the percentage of a quantity; to use bar model diagrams to support the division and multiplication of numbers towards the percentage.
	Lesson 3 – Finding Percentage Change	To find the percentage change in an amount over time; to calculate the percentage change where the number gives rise to a decimal.
	Lesson 4 – Using Percentage to Compare	To use percentage, bar models and fractions to compare amounts.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6B

### Ratio and Proportion: Ratio

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 8</b> – Ratio	Lesson 1 – Comparing Quantities	To use ratios and fractions to compare objects; to find the relationship between ratios, percentages and fractions.
	Lesson 2 – Comparing Quantities	To determine the ratio of a quantity using concrete materials; to simplify ratios using concrete materials in addition to division.
	Lesson 3 – Comparing Quantities	To compare more than two quantities using the term 'ratio'; to use bar models to express ratios where there is more than one quantity.
	Lesson 4 – Comparing Quantities	To compare quantity using both fractions and ratios; to use bar model diagrams to represent ratios.
	Lesson 5 – Comparing Quantities	To compare quantities using bar models and common factors; to use multiplication and division to simplify ratios.
	Lesson 6 – Comparing Numbers	To compare numbers using ratios; to make decisions about simplifying ratios using division.
	Lesson 7 – Solving Word Problems	To solve word problems using a variety of heuristics including guess-and-check and bar models; to apply knowledge of ratios to word problems.
	Lesson 8 – Solving Word Problems	To solve word problems using the bar model heuristic; to employ division and multiplication as primary strategies when solving word problems visually.
	Lesson 9 – Solving Word Problems	To apply the guess-and-check and advanced bar model heuristic to ratio word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6B

### Algebra: Algebra

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 9 – Algebra</b>	Lesson 1 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express a rule using a letter or symbol.
	Lesson 2 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express the relationship between consecutive numbers in terms of a symbol or letter.
	Lesson 3 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express the relationship between consecutive numbers in terms of a symbol or letter.
	Lesson 4 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express unknown numbers in terms of a letter or symbol, including using a number before a letter for multiplication.
	Lesson 5 – Writing Algebraic Expressions	To use a table to identify a pattern; to write algebraic expressions using each of the four operations.
	Lesson 6 – Writing and Evaluating Algebraic Expressions	To use examples to identify rules; to write algebraic expressions using each of the four operations; to evaluate algebraic expressions including the use of inverse operations.
	Lesson 7 – Writing and Evaluating Algebraic Expressions	To recognise patterns; to write algebraic expressions with two steps; to evaluate algebraic expressions with two steps.
	Lesson 8 – Writing Formulae	To recognise patterns; to write and evaluate algebraic expressions with two steps; to write and use formulae.
	Lesson 9 – Using Formulae	To use formulae to solve problems; to replace a letter/variable with a number then solve the equation; to use inverse operations to solve equations.
	Lesson 10 – Solving Equations	To solve equations; to use equations to find unknown values.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6B

### Measurement: Area and Perimeter

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective	
<b>Chapter 10</b> – Area and Perimeter	Lesson 1 – Finding the Area and the Perimeter of Rectangles	To find the area and perimeter of rectangles; to calculate perimeter using the known area and vice versa.	
	<b>Lessons 1–6</b>	Lesson 2 – Finding the Area of Parallelograms	To find and calculate the area of a parallelogram; to use concrete materials and prior understanding of area to construct a formula for the area.
		Lesson 3 – Finding the Area of Triangles	To use prior knowledge of area to determine and solve the area of a triangle; to use and apply the formula for the area of a rectangle to solve problems involving triangles.
		Lesson 4 – Finding the Area of Triangles	To calculate the area of a triangle using a formula; to calculate the area of a triangle in multiple ways.
		Lesson 5 – Finding the Area of Triangles	To use multiple methods to solve the area of a triangle.
		Lesson 6 – Finding the Area of Parallelograms	To find the area of a parallelogram using an understanding of triangles; to use concrete materials to find the area of a parallelogram.
		Chapter consolidation	To practise various concepts covered in the chapter.
	3 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.	

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6B

### Geometry – Properties and Shapes: Geometry

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 12</b> – <b>Geometry</b>  <b>Lessons 1–5</b>	Lesson 1 – Investigating Vertically Opposite Angles	To investigate opposite angles; to use prior knowledge of angles to solve problems involving angles.
	Lesson 2 – Solving Problems Involving Angles	To solve problems involving angles using the bar model heuristic; to solve problems involving angles without protractors.
	Lesson 3 – Investigating Angles in Triangles	To determine and show the sum of the angles inside a triangle.
	Lesson 4 – Investigating Angles in Quadrilaterals	To investigate and determine angles in quadrilaterals.
	Lesson 5 – Solving Problems Involving Angles in Triangles and Quadrilaterals	To use the knowledge of angles inside a triangle and a quadrilateral to solve problems involving angles in other shapes.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SPRING TERM – TEXTBOOK 6B

### Geometry – Position and Direction: Position and Movement

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 12</b> – <b>Position and Movement</b>  <b>Lessons 1–5</b>	Lesson 1 – Showing Negative Numbers	To represent negative numbers on both vertical and horizontal number lines.
	Lesson 2 – Describing Position	To describe the positions of objects on a coordinate grid; to use x and y axes to determine the position of objects on a grid.
	Lesson 3 – Describing Position	To describe the position of points using coordinates on a grid.
	Lesson 4 – Drawing Polygons on a Coordinate Grid	To draw polygons on a coordinate grid; to recognise polygons on a coordinate grid.
	Lesson 5 – Describing Translations	To describe the translation of shapes on a coordinate grid.



# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 6B

### Statistics: Graphs and Averages

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 14</b> – Graphs and Averages	Lesson 1 – Understanding Averages	To calculate the average (mean) of sets of values.
	Lesson 2 – Calculating the Mean	To calculate the mean.
<b>Lessons 1–10</b>	Lesson 3 – Calculating the Mean	To calculate the mean.
	Lesson 4 – Solving Problems Involving the Mean	To solve problems involving the mean; to use the mean and the number of values to calculate the total; to use given information to find unknown values.
	Lesson 5 – Showing Information on Graphs	To show information on graphs; to transfer information from a table to a pie chart.
	Lesson 6 – Reading Pie Charts	To read and interpret pie charts.
	Lesson 7 – Reading Pie Charts	To read and interpret pie charts; to use percentages in pie charts.
	Lesson 8 – Reading Pie Charts	To read and interpret pie charts; to use knowledge of angles to interpret pie charts.
	Lesson 9 – Reading Line Graphs	To read line graphs; to interpret the information in line graphs that show distance and time.
	Lesson 10 – Reading Line Graphs	To read and interpret line graphs; to answer questions about the information in line graphs.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 6B

### Number and Place Value: Negative Numbers

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 15</b> – <b>Negative Numbers</b>	Lesson 1 – Adding and Subtracting Negative Numbers	To add and subtract negative numbers using a number line.
	Lesson 2 – Using Negative Numbers	To create number stories using negative numbers.
	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.
<b>Week 4</b>	<b>SATs</b>	

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 6B

### Measurement: Volume

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 11</b> – Volume	Lesson 1 – Finding the Volume of Cubes and Cuboids	To find the volume of cubes and cuboids using concrete materials.
	Lesson 2 – Finding the Volume of Cubes and Cuboids	To determine the formula for the volume of cubes and cuboids and apply it to calculate the volume of shapes.
	Lesson 3 – Finding the Volume of Cubes and Cuboids	To estimate the volume of objects and spaces; to calculate the volume of boxes using the formula for volume of cubes and cuboids.
	Lesson 4 – Finding the Volume of Cubes and Cuboids	To calculate the volume of boxes using the formula for volume of a cube; to expose common misconceptions in volume through a 3-box arrangement.
	Lesson 5 – Solving Problems Involving the Volume of Solids	To solve word problems involving the volume of cubes and cuboids; to apply the formula for the volume of a cube or cuboid.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 6B

### Geometry – Properties and Shapes: Geometry

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 12</b> <b>– Geometry</b>  <b>Lessons 6–12</b>	Lesson 6 – Naming Parts of a Circle	To name the parts of a circle; to calculate diameter and radius using parts of a circle.
	Lesson 7 – Solving Problems Involving Angles in a Circle	To solve problems involving angles in a circle.
	Lesson 8 – Drawing Quadrilaterals	To draw quadrilaterals with specific side lengths and parallel lines; to find the perimeter of shapes and name trapeziums and parallelograms.
	Lesson 9 – Drawing Triangles	To draw triangles using measurements and angles as the starting point; to use a protractor to draw triangles using angles.
	Lesson 10 – Drawing Triangles	To construct triangles using a protractor and ruler; to use ratio to determine the dimensions of a triangle.
	Lesson 11 – Drawing Nets of Three-Dimensional Shapes	To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
	Lesson 12 – Drawing Nets of Three-Dimensional Shapes	To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
	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.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 6B

### Geometry – Position and Direction: Position and Movement

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 13</b> – <b>Position and Movement</b>	Lesson 6 – Describing Reflections	To describe reflection using a mirror line and the terms ‘object’ and ‘image’.
	Lesson 7 – Describing Movements	To reposition objects so they can be reflected in the x and y axis as the mirror line.
<b>Lessons 6–10</b>	Lesson 8 – Describing Movements	To describe the movement of objects using the terms ‘translation’ and ‘reflection’.
	Lesson 9 – Using Algebra to Describe Position	To use algebra to describe the positions of coordinates in relationship to one another.
	Lesson 10 – Using Algebra to Describe Movements	To represent translation and reflection using algebraic notation.
	Chapter consolidation	To practise various concepts covered in the chapter.

# PRIMARY MATHS SERIES – YEAR 6 LESSON BREAKDOWN

## SUMMER TERM – TEXTBOOK 6B

### Statistics: Graphs and Averages

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
<b>Chapter 14</b> – <b>Graphs and Averages</b>  <b>Lessons 11–12</b>	Lesson 11 – Converting Miles into Kilometres	To convert miles into kilometres and kilometres into miles.
	Lesson 12 – Reading Line Graphs	To read and interpret line graphs.
	Chapter consolidation	To practice 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.
<b>Week 10</b>	<b>REVISIT TOPICS</b>	
<b>Week 11</b>	<b>REVISION AND END-OF-YEAR (B) TESTS</b>	
<b>Week 12</b>	<b>REVISIT TOPICS</b>	

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