



Stanley Grove Primary Academy

Year 5 Maths Overview



Year 5 Scheme of Work

Maths — No Problem! is a comprehensive series that adopts a spiral design with carefully built-up mathematical concepts and processes adapted from the maths mastery approaches used in Singapore. The Concrete-Pictorial-Abstract (C-P-A) approach forms an integral part of the learning process through the materials developed for this series.

Maths — No Problem! incorporates the use of concrete aids and manipulatives, problem-solving and group work.

Textbook 5A	Chapter 1 - Numbers to 1 000 000	<p>Lesson 1 – Reading and Writing Numbers to 100 000: To read and represent numbers to 100 000.</p> <p>Lesson 2 – Reading and Writing Numbers to 1 000 000: To read and represent numbers to 1 000 000.</p> <p>Lesson 3 – Reading and Writing Numbers to 1 000 000: To read and represent numbers to 1 000 000 using number discs.</p> <p>Lesson 4 – Comparing Numbers to 1 000 000: To compare numbers to 1 000 000 using place value.</p> <p>Lesson 5 – Comparing Numbers to 1 000 000: To compare numbers to 1 000 000 using place value.</p> <p>Lesson 6 – Comparing Numbers to 1 000 000: To compare numbers to 1 000 000 using pictorial representations and proportionality.</p> <p>Lesson 7 – Comparing Numbers to 1 000 000: To compare numbers to 1 000 000 from pictorial representations, using lists and number lines.</p> <p>Lesson 8 – Making Number Patterns: To make and identify patterns in numbers using knowledge of place value.</p> <p>Lesson 9 – Making Number Patterns: To make number patterns that decrease in multiples of 10 000 or 100 000.</p> <p>Lesson 10 – Rounding Numbers: To round numbers to the nearest 10 000 using number lines and bar graphs.</p> <p>Lesson 11 – Rounding Numbers: To round numbers to the nearest 100 000 using number lines and bar graphs.</p> <p>Lesson 12 – Rounding Numbers: To round numbers to the nearest 100, 1000, 10 000 and 100 000 using number lines.</p> <p>Lesson 13 – Chapter Consolidation.</p>
	Chapter 2 – Whole Numbers: Addition and Subtraction	<p>Lesson 1 – Counting On to Add: To add using the 'counting on' strategy with concrete materials and number lines.</p> <p>Lesson 2 – Counting Backwards to Subtract: To subtract using the counting backwards strategy with concrete materials.</p> <p>Lesson 3 – Adding within 1 000 000: To add numbers within 1 000 000 using rounding and concrete materials.</p> <p>Lesson 4 – Adding and Subtracting within 1 000 000: To use addition and subtraction to solve comparison problems with numbers to 1 000 000.</p> <p>Lesson 5 – Adding within 1 000 000: To add numbers within 1 000 000 using the column method of addition.</p> <p>Lesson 6 – Subtracting within 1 000 000: To subtract using the column method, number bonds and number discs using numbers to 1 000 000.</p> <p>Lesson 7 – Adding and Subtracting within 1 000 000: To add and subtract using number bonds as a key strategy using numbers within 1 000 000.</p> <p>Lesson 8 – Adding within 1 000 000: To consolidate and refine addition skills and place-value knowledge to solve addition problems.</p> <p>Lesson 9 – Subtracting within 1 000 000: To subtract numbers to 1 000 000 using concrete materials, the column method and number bonds.</p> <p>Lesson 10 Part 1 – Subtracting within 1 000 000: To consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems.</p> <p>Lesson 10 Part 2 – Subtracting within 1 000 000: To consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems.</p> <p>Lesson 12 – Chapter Consolidation</p>

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Textbook 5A	Chapter 3 – Whole Numbers: Multiplication and Division	<p>Lesson 1 – Finding Multiples: To consolidate and review multiplication; to find the result of multiplying by a number.</p> <p>Lesson 2 – Finding Factors: To consolidate and review multiplication; to find the numbers we can multiply by to get a number.</p> <p>Lesson 3 – Finding Common Factors: To define and find common factors of numbers to 100.</p> <p>Lesson 4 – Finding Prime Numbers: To identify and name the prime numbers; to recognise prime numbers as numbers that only have 2 factors.</p> <p>Lesson 5 – Finding Prime Numbers: To define and determine prime numbers to 100.</p> <p>Lesson 6 – Finding Square and Cube Numbers: To create and determine square and cube numbers.</p> <p>Lesson 7 – Multiplying by 10, 100 and 1000: To multiply 1- and 2-digit numbers by 10, 100 and 1000.</p> <p>Lesson 8 – Multiplying 2-Digit and 3-Digit Numbers by a Single Digit: To multiply 2- and 3-digit numbers by a 1-digit number using multiple strategies.</p> <p>Lesson 9 – Multiplying 4-Digit Numbers: To multiply 4-digit numbers by 1-digit numbers.</p> <p>Lesson 10 – Multiplying 4-Digit Numbers: To multiply 4-digit numbers by 1-digit numbers with regrouping, using a variety of strategies.</p> <p>Lesson 11 – Multiplying 4-Digit Numbers: To multiply a 4-digit number by a 1-digit number, with regrouping from the ones, tens and hundreds, using multiple methods.</p> <p>Lesson 12 – Multiplying a 2-Digit Number by a 2-Digit Number: To multiply 2-digit numbers by 2-digit numbers using multiple methods.</p> <p>Lesson 13 – Multiplying a 2-Digit Number by a 2-Digit Number: To multiply a 2-digit number by a 2-digit number using multiple methods, including the grid method, number bonds and column method, with regrouping.</p> <p>Lesson 14 – Multiplying a 3-Digit Number by a 2-Digit Number: To multiply a 3-digit number by a 2-digit number, using the grid method and column method as key strategies.</p> <p>Lesson 15 – Multiplying a 3-Digit Number by a 2-Digit Number: To multiply a 3-digit number by a 2-digit number with regrouping, using the column method as the key strategy.</p> <p>Lesson 16 – Dividing by 10, 100 and 1000: To find thousands, hundreds and tens in a 4-digit number using concrete materials.</p> <p>Lesson 17 – Dividing 3-Digit and 4-Digit Numbers: To divide 3- and 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods.</p> <p>Lesson 18 – Dividing 4-Digit Numbers: To divide 4-digit numbers by 1-digit numbers, using number bonds and long division are the key methods.</p> <p>Lesson 19 – Dividing with Remainder: To divide 3-digit numbers by 1-digit numbers, using long division, short division and mental methods, that give rise to remainders.</p> <p>Lesson 20 – Chapter Consolidation</p>
	Chapter 4 – Whole Numbers: Word Problems	<p>Lesson 1 – Solving Word Problems: To solve word problems involving multiple operations; to identify the operation needed to carry out the plan.</p> <p>Lesson 2 – Solving Word Problems: To solve word problems involving multiplication and division using bar models as the main heuristic.</p> <p>Lesson 3 – Solving Word Problems: To solve word problems involving multiple operations, identifying key information and representing information using bar model diagrams.</p> <p>Lesson 4 – Solving Word Problems: To solve word problems involving multiple operations, using bar models as the main heuristic to represent key information.</p> <p>Lesson 5 – Chapter Consolidation</p>

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Textbook 5A	Chapter 5 – Graphs	<p>Lesson 1 – Reading Tables: To read the information presented in a table and interpret its meaning.</p> <p>Lesson 2 – Reading Tables: To read and respond to information presented in a table.</p> <p>Lesson 3 – Reading Tables: To read and respond to tables that have a variety of data sets.</p> <p>Lesson 4 – Reading Line Graphs: To read and interpret information provided in a line graph where a single line represents the data.</p> <p>Lesson 5 – Reading Line Graphs: To read and interpret information presented on a line graph where the data is represented by more than one line.</p> <p>Lesson 6 – Reading Line Graphs: To read and interpret information presented on a line graph where the data is represented by more than one line.</p> <p>Lesson 7 – Reading Line Graphs: To read and interpret information presented in a table and turn it into a line graph; to determine relationships between data sets.</p> <p>Lesson 8 – Chapter Consolidation.</p>
	Chapter 6 - Fractions	<p>Lesson 1 – Dividing to Make Fractions: To divide whole numbers to create fractions; to create mixed numbers and improper fractions when dividing whole numbers.</p> <p>Lesson 2 – Writing Improper Fractions and Mixed Numbers: To write improper fractions and mixed numbers using a number line and pictorial methods.</p> <p>Lesson 3 – Finding Equivalent Fractions: To find equivalent fractions using pictorial methods.</p> <p>Lesson 4 – Comparing and Ordering Fractions: To compare and order fractions using the pictorial method.</p> <p>Lesson 5 – Comparing and Ordering Fractions: To compare and order improper fractions using the pictorial method.</p> <p>Lesson 6 – Comparing and Ordering Fractions: To compare mixed numbers using pictorial representations; to find common denominators where one fraction is already the common denominator for all fractions in the question.</p> <p>Lesson 7 – Making Number Pairs: To make number pairs (number bonds) with fractions with different denominators.</p> <p>Lesson 8 – Adding Fractions: To add unlike fractions by finding a common denominator using pictorial methods.</p> <p>Lesson 9 – Adding Fractions: To add unlike fractions by finding a common denominator using pictorial methods.</p> <p>Lesson 10 – Adding Fractions: To add together unlike fractions where the sum is greater than 1, creating mixed numbers or improper fractions.</p> <p>Lesson 11 – Adding Fractions: To add unlike fractions which create improper fractions and mixed numbers that give rise to simplification.</p> <p>Lesson 12 – Subtracting Fractions: To subtract fractions with different denominators; to subtract fractions from whole numbers.</p> <p>Lesson 13 – Subtracting Fractions: To subtract fractions where the denominators are not the same; to use bar models as a key strategy for subtracting fractions.</p> <p>Lesson 14 – Subtracting Fractions: To subtract fractions and mixed numbers from mixed numbers with different denominators.</p> <p>Lesson 15 – Multiplying Fractions by Whole Numbers: To multiply fractions by whole numbers creating other fractions, mixed numbers or improper fractions.</p> <p>Lesson 16 – Multiplying Fractions by Whole Numbers: To multiply fractions by whole numbers where the product is an improper fraction or mixed number.</p> <p>Lesson 17 – Multiplying Mixed Numbers: To multiply mixed numbers by whole numbers, creating larger mixed numbers.</p> <p>Lesson 18 – Multiplying Mixed Numbers by Whole Numbers: To multiply mixed numbers by whole numbers in multi-step word problems.</p> <p>Lesson 19 – Chapter Consolidation</p>

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Textbook 5B	Chapter 7 - Decimals	<p>Lesson 1 – Writing Decimals: To write decimal numbers.</p> <p>Lesson 2 – Reading and Writing Decimals: To read and write decimals.</p> <p>Lesson 3 – Reading and Writing Decimals: To read and write decimals.</p> <p>Lesson 4 – Comparing Decimals: To compare tenths and hundredths written as decimals.</p> <p>Lesson 5 – Comparing Decimals: To order and compare decimals.</p> <p>Lesson 6 – Comparing Decimals: To compare and order decimals of amounts.</p> <p>Lesson 7 – Writing Fractions as Decimals: To write fractions as decimals.</p> <p>Lesson 8 – Adding and Subtracting Decimals: To add and subtract amounts in decimals.</p> <p>Lesson 9 – Adding and Subtracting Decimals: To add and subtract decimals. To add and subtract amounts in pounds and pence.</p> <p>Lesson 10 – Adding and Subtracting Decimals: To add and subtract amounts in pounds and pence.</p> <p>Lesson 11 – Adding and Subtracting Decimals: To add and subtract decimals. To add and subtract amounts in pounds and pence.</p> <p>Lesson 12 – Adding and Subtracting Decimals: To add and subtract decimals to find the smallest possible sum and difference.</p> <p>Lesson 13 – Adding and Subtracting Decimals: To add and subtract decimals. To find number pairs that add up to 1.</p> <p>Lesson 14 – Adding and Subtracting Decimals: To add and subtract the perimeter of an object using decimals.</p> <p>Lesson 15 – Rounding Decimals: To round decimals to the nearest whole number. To round numbers to the nearest tenth.</p> <p>Lesson 16 – Chapter Consolidation</p>
	Chapter 8 – Percentage	<p>Lesson 1 – Comparing Quantities: To compare quantities. To compare fractions, decimals and percentages. To convert fractions to decimals and percentages.</p> <p>Lesson 2 – Finding Percentages: To convert values of an amount into percentages. To convert fractions into percentages.</p> <p>Lesson 3 – Finding Percentages: To convert values of an amount into percentages. To convert fractions into percentages.</p> <p>Lesson 4 – Chapter Consolidation</p>
	Chapter 9 – Geometry	<p>Lesson 1 – Knowing Types of Angles: To know the names and qualities of acute, right, obtuse and reflex angles.</p> <p>Lesson 2 – Measuring Angles: To measure angles using a protractor.</p> <p>Lesson 3 – Measuring Angles: To draw, measure and add angles using a protractor.</p> <p>Lesson 4 – Investigating Angles on a Line: To measure angles using a protractor. To identify two angles which add up to 180° on a straight line.</p> <p>Lesson 5 – Investigating Angles at a Point: To investigate angles that, when combined, make 360°.</p> <p>Lesson 6 – Drawing Angles: To draw angles using a protractor.</p> <p>Lesson 7 – Drawing Lines and Angles: To draw lines and angles with a high level of accuracy.</p> <p>Lesson 8 – Describing Squares and Rectangles: To describe the sides and angles of both rectangles and squares.</p> <p>Lesson 9 – Investigating Angles in Squares and Rectangles: To investigate the angles of various quadrilaterals, including squares and rectangles.</p> <p>Lesson 10 – Solving Problems Involving Angles in Rectangles: To solve problems involving angles in rectangles.</p> <p>Lesson 11 – Solving Problems Involving Angles: To solve problems involving angles.</p> <p>Lesson 12 – Solving Problems Involving Angles: To use our understanding of angles to solve problems.</p> <p>Lesson 13 – Investigating Regular Polygons: To investigate regular polygons.</p> <p>Lesson 14 – Chapter Consolidation</p>

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Textbook 5B	Chapter 10 – Position and Movement	<p>Lesson 1 – Naming and Plotting Points: To name and plot points.</p> <p>Lesson 2 – Describing Translations: To describe the position of a shape following a translation.</p> <p>Lesson 3 – Describing Movements: To describe movements and reflecting shapes.</p> <p>Lesson 4 – Describing Movements: To describe the movement of a 2-D shape when reflected.</p> <p>Lesson 5 – Successive Reflections: To reflect a shape more than once.</p> <p>Lesson 6 – Chapter Consolidation</p>
	Chapter 11 – Measurements	<p>Lesson 1 – Converting Units of Length: To convert units of length.</p> <p>Lesson 2 – Converting Units of Length: To convert units of length, including centimetres and metres.</p> <p>Lesson 3 – Converting Units of Length: To convert units of length.</p> <p>Lesson 4 – Converting Units of Length: To solve problems by converting units of length.</p> <p>Lesson 5 – Converting Units of Mass: To convert units of mass.</p> <p>Lesson 6 – Converting Units of Mass: To convert units of mass, including grams into kilograms.</p> <p>Lesson 7 – Converting Units of Mass: To convert units of mass.</p> <p>Lesson 8 – Converting Units of Mass: To convert units of mass, including kilograms and pounds.</p> <p>Lesson 9 – Converting Units of Time: To convert units of time.</p> <p>Lesson 10 – Converting Units of Time: To convert units of time from days into weeks and months.</p> <p>Lesson 11 – Converting Units of Time: To convert units of time.</p> <p>Lesson 12 – Converting Units of Time: To solve problems by converting units of time.</p> <p>Lesson 13 – Converting Units of Time: To convert units of time.</p> <p>Lesson 14 – Telling the Temperature: To read the temperature on a thermometer.</p> <p>Lesson 15 – Chapter Consolidation</p>
	Chapter 12 – Area and Perimeter	<p>Lesson 1 – Finding the Perimeter: To find the perimeter of shapes.</p> <p>Lesson 2 – Finding the Perimeter: To find shapes with a specific perimeter.: Lesson 3 – Finding the Perimeter: To find the perimeter of different shapes.</p> <p>Lesson 4 – Using Scale Diagrams to Find the Perimeter: To use scale diagrams to find the perimeter of a shape.</p> <p>Lesson 5 – Measuring the Area: To measure the area of shapes by counting squares.</p> <p>Lesson 6 – Measuring the Area: To measure the area of squares.</p> <p>Lesson 7 – Measuring the Area: To measure the area of a shape.</p> <p>Lesson 8 – Measuring the Area: To measure area in square metres.</p> <p>Lesson 9 – Measuring the Area: To measure area in square metres.</p> <p>Lesson 10 – Measuring the Area: To find the area of shapes in square metres.</p> <p>Lesson 11 – Estimating the Area: To make an estimation of area in kilometres.</p> <p>Lesson 12 – Chapter Consolidation</p>

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Textbook 5B	Chapter 13 – Volume	<p>Lesson 1 – Understanding the Volume of Solids: To understand the volume of solids.</p> <p>Lesson 2 – Finding the Volume of Solids: To find the volume of 3-D shapes.</p> <p>Lesson 3 – Finding the Volume of Solids: To find the volume of solids.</p> <p>Lesson 4 – Finding the Capacity of Rectangular Boxes: To find the capacity of a cuboid.</p> <p>Lesson 5 – Finding the Capacity of Rectangular Boxes: To find the capacity of rectangular boxes.</p> <p>Lesson 6 – Converting Units of Volume: To compare and convert units of volume.</p> <p>Lesson 7 – Converting Units of Volume: To convert units of volume (metric and imperial).</p> <p>Lesson 8 – Converting Units of Volume: To convert units of volume (metric and imperial).</p> <p>Lesson 9 – Solving Word Problems Involving Volume: To solve word problems involving volume.</p> <p>Lesson 10 – Solving Word Problems Involving Volume: To solve word problems involving volume.</p> <p>Lesson 11 – Chapter Consolidation</p>
	Chapter 14 – Roman Numerals	<p>Lesson 1 – Writing Roman Numerals to 1000: To write Roman numerals to 1000.</p> <p>Lesson 2 – Writing Years in Roman Numerals: To write numbers in their thousands in Roman numerals.</p> <p>Lesson 3 – Chapter Consolidation</p>