



## St. Margaret's C.E. Junior School

### Year 3 Maths Curriculum Overview



AUTUMN	SPRING	SUMMER
<p style="text-align: center;"><b>Number: Place value</b></p> <ul style="list-style-type: none"> <li>• Represent numbers to 100 (NPV 2) (R)</li> <li>• Tens &amp; ones using addition (NPV 2) (R)</li> <li>• Number line to 100 (NPV 4) (R) <ul style="list-style-type: none"> <li>➢ Represent numbers to 100</li> <li>➢ Partition numbers to 100</li> <li>➢ Number line to 100- <b>*(PS) Logical reasoning</b></li> <li>➢ Hundreds</li> <li>➢ Represent numbers to 1,000- <b>*(PS) Open-ended/acting out</b></li> <li>➢ Partition numbers to 1,000</li> <li>➢ Flexible partitioning of numbers to 1000</li> <li>➢ Hundreds, tens and ones</li> </ul> </li> <li>• Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) (NPV 2) <b>*(PS) Build /logical reasoning/drawing a table</b></li> <li>• Read and write numbers up to 1,000 in numerals and in words</li> <li>• Find 10 or 100 more or less than a given number (NPV 3) <ul style="list-style-type: none"> <li>➢ Find 1, 10 or 100 more or less</li> </ul> </li> <li>• Identify, represent and estimate numbers using different representations (NPV 3) (NPV 4) <ul style="list-style-type: none"> <li>➢ Number line to 1,000</li> <li>➢ Estimating on a number line to 1,000</li> </ul> </li> <li>• Compare and order numbers up to 1,000 (NPV 3) <ul style="list-style-type: none"> <li>➢ Compare numbers to 1,000</li> <li>➢ Order numbers to 1,000</li> </ul> </li> <li>• Count from 0 in multiples of 4, 8, 50 (NPV 4) and 100; find 10 or 100 more or less than a given number <ul style="list-style-type: none"> <li>➢ Count in 50s</li> </ul> </li> <li>• <b>Solve number problems and practical problems</b> involving these ideas</li> </ul>	<p style="text-align: center;"><b>Number: multiplication and division B</b></p> <ul style="list-style-type: none"> <li>• Recall and use multiplication facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2)</li> <li>• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (MD 1) <ul style="list-style-type: none"> <li>➢ Multiples of 10</li> <li>➢ Related calculations</li> <li>➢ Reasoning about multiplication</li> <li>➢ Multiply a 2-digit number by a 1-digit number – no exchange</li> <li>➢ Multiply a 2-digit number by a 1-digit number – with exchange</li> <li>➢ Link multiplication and division</li> <li>➢ Divide a 2-digit number by a 1-digit number – no exchange</li> <li>➢ Divide a 2-digit number by a 1-digit number – flexible partitioning</li> <li>➢ Divide a 2-digit number by a 1-digit number – with remainders</li> </ul> </li> <li>• <b>Solve problems</b>, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects (MD 1) <ul style="list-style-type: none"> <li>➢ Scaling Step (NF 3)</li> <li>➢ How many ways?</li> </ul> </li> <li>• <b>Solve problems</b> involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul>	<p style="text-align: center;"><b>Number: fractions</b></p> <ul style="list-style-type: none"> <li>• Add and subtract fractions with the same denominator within one whole (for example, <math>5/7 + 1/7 = 6/7</math>) (F 4) <ul style="list-style-type: none"> <li>➢ Add fractions</li> <li>➢ Subtract fractions</li> <li>➢ Partition the whole</li> </ul> </li> <li>• Compare and order unit fractions, and fractions with the same denominators (F 3)</li> <li>• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators (F 2) <ul style="list-style-type: none"> <li>➢ Unit fractions of a set of objects</li> <li>➢ Non-unit fractions of a set of objects</li> <li>➢ Reasoning with fractions of an amount</li> </ul> </li> <li>• <b>Solve problems</b> that involve all of the above</li> </ul>

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<p><b><u>Number: addition and subtraction</u></b></p> <ul style="list-style-type: none"> <li>➤ Apply number bonds within 10</li> <li>➤ Add and subtract 1s</li> <li>➤ Add and subtract 10s</li> <li>➤ Add and subtract 100s</li> <li>• <b>Add &amp; subtract 2 digit nos crossing 10 (AS 2) (R) (NF 1)</b> <ul style="list-style-type: none"> <li>➤ Spot the pattern</li> <li>➤ Add 1s across a 10</li> <li>➤ Add 10s across a 100</li> <li>➤ Subtract 1s across a 10</li> <li>➤ Subtract 10s across a 100</li> <li>➤ Make connections</li> </ul> </li> <li>• Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds <b>(AS 2)</b></li> <li>• Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction <b>(AS 2)</b> <ul style="list-style-type: none"> <li>➤ Add two numbers (no exchange)</li> <li>➤ Subtract two numbers (no exchange)</li> <li>➤ Add two numbers (across a 10)</li> <li>➤ Add two numbers (across a 100)</li> <li>➤ Subtract two numbers (across a 10)</li> <li>➤ Subtract two numbers (across a 100)</li> <li>➤ Add 2-digit and 3-digit numbers</li> <li>➤ Subtract a 2-digit number from a 3-digit number</li> </ul> </li> <li>• Estimate the answer <b>(AS 2)</b> to a calculation and use inverse operations to check answers <b>(AS 3)</b> <ul style="list-style-type: none"> <li>➤ Complements to 100 <b>(AS 1)</b></li> <li>➤ Estimate answers</li> <li>➤ Inverse operations</li> <li>➤ Make decisions</li> </ul> </li> <li>• <b>Solve problems</b>, including missing number problems, using number facts, place value, and more complex addition and subtraction <b>(AS 2)</b></li> </ul>	<p><b><u>Measurement: Length and Perimeter</u></b></p> <ul style="list-style-type: none"> <li>• Measure, compare, add and subtract: lengths (m/cm/mm) <b>(NPV 1) (NPV 4) (AS 2)</b> <ul style="list-style-type: none"> <li>➤ Measure in metres and centimetres</li> <li>➤ Measure in millimetres</li> <li>➤ Measure in centimetres and millimetres</li> <li>➤ Metres, centimetres and millimetres</li> <li>➤ Equivalent lengths (metres and centimetres)</li> <li>➤ Equivalent lengths (centimetres and millimetres)</li> <li>➤ Compare lengths</li> <li>➤ Add lengths Subtract lengths</li> </ul> </li> <li>• Measure the perimeter of simple 2-d shapes <b>(AS 2)</b> <ul style="list-style-type: none"> <li>➤ What is perimeter?</li> <li>➤ Measure perimeter</li> <li>➤ Calculate perimeter</li> </ul> </li> </ul>	<p><b><u>Measurement: money</u></b></p> <ul style="list-style-type: none"> <li>➤ Pounds and pence</li> <li>➤ Convert pounds and pence</li> <li>➤ Add money</li> <li>➤ Subtract money</li> <li>➤ Find change</li> <li>• Add and subtract amounts of money to give change, using both £ and p in practical contexts <b>(NPV 2) (AS 2) (AS 3)</b></li> </ul> <p><b><u>Measurement: time</u></b></p> <ul style="list-style-type: none"> <li>• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>• Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight <b>*(PS) Logical reasoning/organised list/trial &amp; improvement</b> <ul style="list-style-type: none"> <li>➤ Roman numerals to 12</li> <li>➤ Tell the time to 5 minutes</li> <li>➤ Tell the time to the minute</li> <li>➤ Read time on a digital clock</li> <li>➤ Use am and pm</li> </ul> </li> <li>• Know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>• Compare durations of events (for example to calculate the time taken by particular events or tasks) <ul style="list-style-type: none"> <li>➤ Years, months and days</li> <li>➤ Days and hours</li> <li>➤ Hours and minutes – use start and end times</li> <li>➤ Hours and minutes - use durations</li> <li>➤ Minutes and seconds</li> <li>➤ Units of time</li> <li>➤ Solve problems with time</li> </ul> </li> </ul>

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<p><b><u>Number: multiplication and division A</u></b></p> <ul style="list-style-type: none"> <li>• Multiplication using arrays (MD 1) (R)</li> <li>• 2x &amp; 5x tables (MD 1) (R) <b>*(PS) Logical reasoning</b></li> <li>• Consolidate 2x, 4x, 8x tables (MD 1) (R) <ul style="list-style-type: none"> <li>➤ Multiplication - equal groups</li> <li>➤ Use arrays</li> <li>➤ Multiples of 2</li> <li>➤ Multiples of 5 and 10</li> <li>➤ Sharing and grouping</li> </ul> </li> <li>• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables <ul style="list-style-type: none"> <li>➤ Multiply by 3</li> <li>➤ Divide by 3</li> <li>➤ The 3 times-table</li> <li>➤ Multiply by 4</li> <li>➤ Divide by 4</li> <li>➤ The 4 times-table</li> <li>➤ Multiply by 8</li> <li>➤ Divide by 8</li> <li>➤ The 8 times-table</li> <li>➤ The 2, 4 and 8 times-tables</li> </ul> </li> <li>• Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods (MD 1)</li> <li>• <b>Solve problems</b>, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects (MD 1)</li> </ul>	<p><b><u>Number: Fractions</u></b></p> <ul style="list-style-type: none"> <li>• Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (F 1) <ul style="list-style-type: none"> <li>➤ Understand the denominators of unit fractions</li> </ul> </li> <li>• Compare and order unit fractions, and fractions with the same denominators (F 1) (F 2) (F 3) <ul style="list-style-type: none"> <li>➤ Compare and order unit fractions</li> </ul> </li> <li>• Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators (F 1) (F 2) <ul style="list-style-type: none"> <li>➤ Understand the numerators of non-unit fractions</li> <li>➤ Understand the whole</li> <li>➤ Compare and order non-unit fractions</li> </ul> </li> <li>• Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 (F 2) (F 3) (NF 3) <ul style="list-style-type: none"> <li>➤ Fractions and scales</li> <li>➤ Fractions on a number line- <b>*(PS) Logical reasoning/drawing a diagram</b></li> <li>➤ Count in fractions on a number line</li> </ul> </li> <li>• Recognise and show, using diagrams, equivalent fractions with small denominators (F 1) (NF 3) <ul style="list-style-type: none"> <li>➤ Equivalent fractions on a number line</li> <li>➤ Equivalent fractions as bar models</li> </ul> </li> <li>• <b>Solve problems</b> that involve all of the above</li> </ul>	<p><b><u>Geometry: Properties of Shape</u></b></p> <ul style="list-style-type: none"> <li>• Recognise angles as a property of shape or a description of a turn</li> <li>• Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; (G 1)</li> <li>• Identify whether angles are greater than or less than a right angle (G 1) <ul style="list-style-type: none"> <li>➤ Turns and angles</li> <li>➤ Right angles</li> <li>➤ Compare angles</li> </ul> </li> <li>• Identify horizontal and vertical lines and pairs of perpendicular and parallel lines (G 2) <ul style="list-style-type: none"> <li>➤ Measure and draw accurately</li> <li>➤ Horizontal and vertical</li> <li>➤ Parallel and perpendicular</li> </ul> </li> <li>• Draw 2D shapes and make 3D shapes using modelling materials (G 2) <ul style="list-style-type: none"> <li>➤ Recognise and describe 2-D shapes</li> <li>➤ Draw polygons</li> </ul> </li> <li>• Recognise 3D shapes in different orientations and describe them <ul style="list-style-type: none"> <li>➤ Recognise and describe 3-D shapes</li> <li>➤ Make 3-D shapes</li> </ul> </li> </ul>
	<p><b><u>Measurement: mass and capacity</u></b></p> <ul style="list-style-type: none"> <li>• Measure: mass (kg/g) <ul style="list-style-type: none"> <li>➤ Use scales</li> <li>➤ Measure mass in grams</li> <li>➤ Measure mass in kilograms and grams</li> <li>➤ Equivalent masses (kilograms and grams)</li> </ul> </li> <li>• Compare: mass (kg/g) (R)</li> <li>• Add and subtract: mass (kg/g) <ul style="list-style-type: none"> <li>➤ Compare mass</li> <li>➤ Add and subtract mass</li> </ul> </li> </ul>	<p><b><u>Statistics: pictograms and bar charts</u></b></p> <ul style="list-style-type: none"> <li>• Interpret and present data using bar charts, pictograms and tables <ul style="list-style-type: none"> <li>➤ Interpret pictograms</li> <li>➤ Draw pictograms</li> <li>➤ Interpret bar charts</li> <li>➤ Draw bar charts</li> <li>➤ Collect and represent data</li> <li>➤ Two-way tables</li> </ul> </li> <li>• <b>Solve one-step and two-step questions</b> [for example, 'how</li> </ul>

	<ul style="list-style-type: none"> <li>• Measure: volume/capacity (l/ml) <ul style="list-style-type: none"> <li>➤ Measure capacity and volume in millilitres</li> <li>➤ Measure capacity and volume in litres and millilitres</li> </ul> </li> <li>• Compare: volume/capacity (l/ml) (R) <ul style="list-style-type: none"> <li>➤ Equivalent capacities and volumes (litres and millilitres)</li> <li>➤ Compare capacity and volume</li> </ul> </li> <li>• Add and subtract: volume/capacity (l/ml) <ul style="list-style-type: none"> <li>➤ Add and subtract capacity and volume</li> </ul> </li> </ul>	many more?’ and ‘how many fewer?’] using information presented in scaled bar charts and pictograms and tables (R)
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**White Rose Maths Hub & Power Maths** schemes of learning are used to support medium term planning and as exemplification for maths objectives.

R- RECAP of previous objectives

➤ WRH Small Steps

Small steps can be combined into one lesson.

\* (PS) PROBLEM SOLVING opportunities

**DfE- Ready to progress criteria**

NF- Number Facts

NPV- Number & Place Value

AS- Addition & Subtraction

MD- Multiplication & Division

F- Fractions

G- Geometry

REMEMBER to complete **pre & post learning assessments**.

Only move on when the majority of pupils are secure in the objective.