*John Randall Primary School maths medium term planning Y4*

| ***Autumn*** | | ***Spring*** | | ***Summer*** | |
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| **All areas of the maths curriculum will be developed using deepening learning questions based upon solo taxonomy questioning cards**. | | | | | |
| Number, place value and rounding | ● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).<br>● To identify, represent and estimate numbers using different representations.<br>● To order and compare numbers beyond 1000.<br>● To round any number to the nearest 10, 100 or 1000.<br>● To count in multiples of 6, 7, 9, 25, 1000.<br>● To find 1000 more or less than a given number. | Number, place value and rounding, number sense | ● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).<br>● To identify, represent and estimate numbers using different representations.<br>● To order and compare numbers beyond 1000.<br>● To round any number to the nearest 10, 100 or 1000.<br>● To count in multiples of 6, 7, 9, 25, 1000.<br>● To find 1000 more or less than a given number. | Place value , comparing and ordering | ● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).<br>● To identify, represent and estimate numbers using different representations.<br>● To order and compare numbers beyond 1000.<br>● To round any number to the nearest 10, 100 or 1000.<br>● To find 1000 more or less than a given number. |
| Mental addition and subtraction | ● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and | Mental and written addition and subtraction | ● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and | Mental addition and subtraction and measures (use measures as a context for problems) | To estimate and use inverse operations to check answers to a calculation. |

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| | subtraction where appropriate.<br>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | | subtraction where appropriate.<br>● To estimate and use inverse operations to check answers to a calculation.<br>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.<br>● To estimate, compare and calculate different measures, including money in pounds and pence. | | ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.<br>● To estimate, compare and calculate different measures, including money in pounds and pence. |
| Multiplication and division:<br>facts and mental to written methods | ● To recall multiplication facts for multiplication tables up to 12 × 12.<br>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>● To solve problems involving multiplying and adding, including | Mental and written multiplication | To recall multiplication and division facts for multiplication tables up to 12 × 12.<br>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>● To multiply two-digit and three-digit numbers by a one-digit | Written addition and subtraction and measures | To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.<br>● To estimate and use inverse operations to check answers to a calculation.<br>● To solve addition and subtraction two-step problems in contexts, |

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| | using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* | | number using formal written layout.<br>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* | | deciding which operations and methods to use and why. |
| Geometry: properties of shapes | ● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.<br>● To identify lines of symmetry in 2D shapes presented in different orientations.<br>● To complete a simple symmetric figure with respect to a specific line of symmetry. | Mental and written division | To recall multiplication and division facts for multiplication tables up to 12 × 12.<br>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>Develop fluency in the formal written method of short division with exact answers | Fractions: related to division | ● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.<br>● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. |
| Measurement | ● To convert between different units of measure (for example, | Fractions | ● To count up and down in hundredths; recognise that hundredths arise when | Mental and written multiplication and division | ● To recall multiplication and division facts for |

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| | kilometre to metre; hour to minute).<br>● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.<br>● To estimate, compare and calculate different measures, including money in pounds and pence. | | dividing an object by a hundred and dividing tenths by ten.<br>● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.<br>● To recognise and show, using diagrams, families of common equivalent fractions. | | multiplication tables up to 12 × 12.<br>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>● To recognise and use factor pairs and commutativity in mental calculations.<br>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.<br>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* |
| Mental and written addition and subtraction | ● To add and subtract numbers with up to four digits using the efficient written | Fractions and decimals | ● To recognise and write decimal equivalents of any number of tenths or | Measurement: conversion of units (capacity) | Convert between different units of measure [for example, |

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| | methods of columnar addition and subtraction where appropriate.<br>● To estimate and use inverse operations to check answers to a calculation.<br>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | | hundredths.<br>● To recognise and write decimal equivalents to 1/4; 1/2; 3/4.<br>● To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.<br>● To round decimals with one decimal place to the nearest whole number.<br>● To compare numbers with the same number of decimal places up to two decimal places.<br>● To solve simple measure and money problems involving fractions and decimals to two decimal places. | | kilometre to metre; hour to minute] |
| Multiplication and division | ● To recall multiplication facts for multiplication tables up to 12 × 12.<br>● To use place value, known and derived facts to multiply and divide mentally, | Measurement: area and perimeter | To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Measurement : time | ● To read, write and convert time between analogue and digital 12- and 24-hour clocks.<br>● To solve problems involving converting from hours to minutes; minutes to seconds; |

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| | including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>● To recognise and use factor pairs and commutativity in mental calculations.<br>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.<br>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* | | find the area of rectilinear shapes by counting squares | | years to months; weeks to days. |
| Fractions | To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.<br>● To solve problems involving increasingly | Mental calculation: all four operations | To estimate and use inverse operations to check answers to a calculation.<br>● To solve addition and subtraction two-step problems in contexts, deciding which operations and | Mental calculation: all four operations | To estimate and use inverse operations to check answers to a calculation.<br>● To solve addition and subtraction two-step problems in contexts, deciding which operations and |

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| | harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.<br>● To recognise and show, using diagrams, families of common equivalent fractions. | | methods to use and why.<br>● To recall multiplication and division facts for multiplication tables up to 12 × 12.<br>● To recognise and use factor pairs and commutativity in mental calculations.<br>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* | | methods to use and why.<br>● To recall multiplication and division facts for multiplication tables up to 12 × 12.<br>● To recognise and use factor pairs and commutativity in mental calculations.<br>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which *n* objects are connected to *m objects.* |
| Geometry | To describe positions on a 2D grid as coordinates in the first quadrant.<br>● To plot specified points and draw sides to complete a given polygon.<br>● To compare and classify geometric shapes, including quadrilaterals and | Written addition and subtraction | To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.<br>● To estimate and use inverse operations to check answers to a calculation. | Written addition and subtraction | To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.<br>● To estimate and use inverse operations to check answers to a calculation. |

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| | triangles, based on their properties and sizes.<br>● To identify acute and obtuse angles and compare and order angles up to two right angles by size. | | ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | | ● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. |
| Statistics | ● To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.<br>● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. | Geometry: properties of shape, position and direction | To compare and classify geometric shapes, including quadrilaterals and triangles,<br>based on their properties and sizes.<br>● To identify acute and obtuse angles and compare and order angles up to two right angles by size.<br>● To describe positions on a 2D grid as coordinates in the first quadrant.<br>● To describe movements between positions as translations of a given unit to the left/right and up/down.<br>● To plot specified points and draw sides | Geometry: symmetry | Complete a simple symmetric figure with respect to a specific line of symmetry. |

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| | | | to complete a given polygon. | | |
| Measurement: Time | To read, write and convert time between analogue and digital 12- and 24-hour clocks.<br>● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days | Statistics | To interpret and present discrete data using bar charts and continuous data using time graphs.<br>● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. | Geometry: classification | Compare and classify geometric shapes, including quadrilaterals and triangles**,** based on their properties and sizes |
| | | | | Statistics | To interpret and present discrete data using bar charts and continuous data using time graphs.<br>● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs. |