

# Lingfield Education Trust

## Maths Medium-Term Plan: Year 4

### Autumn Term

	Place Value	Position & Direction	Addition & Subtraction	Statistics	Length & Perimeter	Assessment	Time
	3 weeks	1 week	4 weeks	1 week	2 weeks	1 week	3 weeks
National Curriculum	<ul style="list-style-type: none"> <li>Identify, represent and estimate numbers using different representations</li> <li>Count in multiples of 6, 7, 9, 25 and 1,000</li> <li>Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens and ones)</li> <li>Find 1,000 more or less than a given number</li> <li>Order and compare numbers beyond 1,000</li> <li>Round any number to the nearest 10, 100 or 1,000</li> </ul>	<ul style="list-style-type: none"> <li>Describe position using coordinates</li> <li>Plot coordinates</li> <li>Draw 2-D shapes on a grid</li> <li>Translate on a grid</li> <li>Describe translation on a grid</li> </ul>	<ul style="list-style-type: none"> <li>Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> <li>Estimate and use inverse operations to check answers to a calculation</li> </ul>	<ul style="list-style-type: none"> <li>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> <li>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ul>	<ul style="list-style-type: none"> <li>Convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> </ul>	<ul style="list-style-type: none"> <li>Monday: arithmetic paper</li> <li>Tuesday: reasoning paper</li> <li>Wednesday: fluency checks</li> <li>Thursday: unpick arithmetic paper</li> <li>Friday: unpick reasoning paper</li> </ul>	<ul style="list-style-type: none"> <li>Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value</li> <li>Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</li> <li>Read, write and convert time between analogue and digital 12- and 24-hour clocks</li> </ul>
Small Steps	<ul style="list-style-type: none"> <li>Represent numbers to THTO</li> <li>Partition THTO</li> <li>Value of digits to THTO</li> <li>Numberlines</li> <li>1, 10, 100, 1000 more less</li> <li>PS Lesson: PV and value of digits (real-life word)</li> <li>Compare two numbers using <math>&lt;</math> <math>&gt;</math> <math>=</math></li> <li>Order sets of numbers</li> <li>PS Lesson: compare &amp; order (visual)</li> <li>Round numbers to nearest 10</li> <li>Round numbers to nearest 100</li> <li>Round numbers to nearest 1000</li> <li>Round to nearest 10, 100, 100 within others (e.g. 424 to nearest 10 / 3908 to nearest 100)</li> <li>PS Lesson: rounding</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> </ul>	<ul style="list-style-type: none"> <li>Describe positions using coordinates</li> <li>Plot coordinates</li> <li>Translate on a grid</li> <li>Describe a translation</li> <li>Assessment, Pause &amp; Stretch</li> </ul>	<ul style="list-style-type: none"> <li>Addition concrete phase (no regroup and regroup) – calculation policy</li> <li>Addition pictorial phase (no regroup &amp; regroup) – calculation policy</li> <li>Abstract – no regrouping</li> <li>Abstract – 1 piece of regrouping</li> <li>Abstract – 2 pieces of regrouping</li> <li>Abstract – mixed</li> <li>PS Lesson: columnar addition (more than one possibility)</li> <li>subtraction concrete phase (no exchange and exchange) – calculation policy</li> <li>subtraction pictorial phase (no exchange &amp; exchange) – calculation policy</li> <li>Abstract – no exchanging</li> <li>Abstract – 1 piece of exchanging</li> <li>Abstract – 2 pieces of exchanging</li> <li>Abstract – mixed</li> <li>PS Lesson: columnar subtraction (multi-step)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> <li>PS Skills Lesson: trial &amp; improvement</li> </ul>	<ul style="list-style-type: none"> <li>Interpret bar charts</li> <li>Comparison questions</li> <li>Sum questions</li> <li>Difference questions</li> <li>Interpret line charts</li> <li>Assessment, Pause &amp; Stretch</li> </ul>	<ul style="list-style-type: none"> <li>Equivalent lengths: km and m</li> <li>Perimeter on a grid</li> <li>Perimeter of a rectangle</li> <li>PS Lesson: perimeter of rectangle (more than one possibility)</li> <li>Perimeter of rectilinear shapes – no missing values</li> <li>Perimeter of rectilinear shapes - missing values</li> <li>PS Lesson: perimeter of rectilinear shapes (working backwards)</li> <li>Perimeter of polygons</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> <li>PS Skills Lesson: working systematically</li> </ul>	<ul style="list-style-type: none"> <li>Years, months, weeks and days</li> <li>Hours minutes and seconds</li> <li>Convert between analogue and digital</li> <li>Convert to 24 hour – this will 2 lessons</li> <li>Convert from 24hr – this will need 2 lessons</li> <li>PS Lesson: time (real-life word)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> <li>PS Skills Lesson: conjecturing &amp; generalising</li> </ul>	

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**Maths Medium-Term Plan: Year 4**  
 Spring Term

	Multiplication & Division	Area	Fractions	Assessment	Decimals
	5 weeks	1 week	4 weeks	1 week	2 weeks
National Curriculum	<ul style="list-style-type: none"> <li>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5)</li> <li>Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> <li>Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout</li> <li>Use place value, known and derived facts to multiply and divide mentally</li> </ul>	<ul style="list-style-type: none"> <li>Find the area of rectilinear shapes by counting squares</li> </ul>	<ul style="list-style-type: none"> <li>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3)</li> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> <li>Add and subtract fractions with the same denominator</li> </ul>	<ul style="list-style-type: none"> <li>Monday: arithmetic paper</li> <li>Tuesday: reasoning paper</li> <li>Wednesday: fluency checks</li> <li>Thursday: unpick arithmetic paper</li> <li>Friday: unpick reasoning paper</li> </ul>	<ul style="list-style-type: none"> <li>Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3)</li> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> </ul>
Small Steps	<ul style="list-style-type: none"> <li>Multiply by 10</li> <li>Multiply by 100</li> <li>Related /scaled facts multiplication divide by 10</li> <li>divide by 100</li> <li>Related / scaled facts division</li> <li>PS Lesson: powers of 10 (working backwards)</li> <li>Concrete phase from calculation policy (no regrouping and regrouping)</li> <li>pictorial phase from calculation policy (no regrouping and regrouping)</li> <li>Abstract: Expanded Short multiplication 3 x 1 (top right model of calculation policy)</li> <li>Abstract: Short multiplication 3 x 1 no regrouping (bottom right model of calculation policy)</li> <li>Abstract: Short multiplication 3 x 1 &amp; 1 piece of regrouping (bottom right model of calculation policy)</li> <li>Abstract: Short multiplication 3 x 1 &amp; 2 pieces of regrouping (bottom right model of calculation policy)</li> <li>Abstract: Short multiplication 3 x 1 mixed practice of lessons 11 to 13</li> <li>PS Lesson: short multiplication (multi-step)</li> <li>Concrete &amp; pictorial from calculation policy</li> <li>Abstract: Division 3 by 1 (no regroup or remainder) from calculation policy</li> <li>Abstract: Division 3 by 1 (remainder but no regrouping within) from calculation policy</li> <li>Abstract: Division 3 by 1 (remainder and regrouping within) from calculation policy</li> <li>Abstract: Division 3 by 1 mixed from calculation policy</li> <li>PS Lesson: division (rules and patterns)</li> <li>Assessment, Pause &amp; Stretch</li> </ul>	<ul style="list-style-type: none"> <li>What is area and Count squares?</li> <li>Make shapes</li> <li>Compare areas</li> <li>PS Lesson: area (open-ended)</li> <li>Assessment, Pause &amp; Stretch</li> <li>PS Skills Lesson: working collaboratively</li> </ul>	<ul style="list-style-type: none"> <li>Understand the whole</li> <li>Understand mixed numbers</li> <li>Compare and order mixed numbers</li> <li>Understand improper fractions</li> <li>Convert mixed numbers in to improper fractions</li> <li>Convert improper fractions into mixed numbers</li> <li>PS Lesson: convert between mixed numbers and improper and vice-versa (visual)</li> <li>Equivalent fraction</li> <li>PS Lesson: equivalent fractions (logic)</li> <li>Add two fractions</li> <li>Add a fraction and mixed number</li> <li>PS Lesson: adding involving fractions (real-life word)</li> <li>Subtract two fractions</li> <li>Subtract fractions from wholes</li> <li>Subtract fractions from mixed numbers</li> <li>PS lesson: subtracting involving fractions (multi-step)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> </ul>	<ul style="list-style-type: none"> <li>Tenths as fractions</li> <li>Tenths as decimals</li> <li>Tenths on PV chart</li> <li>Tenths on numberlines</li> <li>PS Lesson: tenths (more than one possibility)</li> <li>Hundredths as fractions</li> <li>Hundredth as decimals</li> <li>Hundredth on PV chart</li> <li>Hundredth on numberlines</li> <li>PS Lesson: hundredths (more than one possibility)</li> </ul>	

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**Maths Medium-Term Plan: Year 4**  
 Summer Term

	Decimals (continued)	Money	Properties of Shape	Assessment	Properties of Shape	Summer Springboard
	4 weeks	2 weeks	1 week	1 weeks	2 weeks	1 week
National Curriculum	<ul style="list-style-type: none"> <li>Compare numbers with the same number of decimal places up to 2 decimal places</li> <li>Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Solve simple measure and money problems involving fractions and decimals to 2 decimal places</li> <li>Compare numbers with the same number of decimal places up to 2 decimal places</li> <li>Round decimals with 1 decimal place to the nearest whole number</li> <li>Recognise and write decimal equivalents to 1/4, 1/2 and 3/4</li> </ul>	<ul style="list-style-type: none"> <li>Estimate, compare and calculate different measures, including money in pounds and pence</li> </ul>	<ul style="list-style-type: none"> <li>Recognise angles as a property of shape or a description of a turn (Y3)</li> <li>Identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>Identify lines of symmetry in 2-D shapes presented in different orientation</li> <li>Complete a simple symmetric figure with respect to a specific line of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>Monday: arithmetic paper</li> <li>Tuesday: reasoning paper</li> <li>Wednesday: fluency checks</li> <li>Thursday: unpick arithmetic paper</li> <li>Friday: unpick reasoning paper</li> </ul>	<ul style="list-style-type: none"> <li>Recognise angles as a property of shape or a description of a turn (Y3)</li> <li>Identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>Identify lines of symmetry in 2-D shapes presented in different orientation</li> <li>Complete a simple symmetric figure with respect to a specific line of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>Revisit key place value, operations and fractions skills before summer break be given proper time</li> </ul>
Small Steps	<ul style="list-style-type: none"> <li>Divide one digit number by 10</li> <li>Divide two digit number by 10</li> <li>Divide one digit number by 100</li> <li>Divide two digit number by 100</li> <li>PS Lesson: dividing by 10 and 100 (multi-step)</li> <li>PS Skills Lesson: finding starting points</li> <li>Make a whole with tenths</li> <li>Make a whole with hundredths</li> <li>Partition decimals</li> <li>PS Lesson: partition decimals (visual)</li> <li>Compare decimals</li> <li>Order decimals</li> <li>PS Lesson: compare &amp; order decimals (real-life word)</li> <li>Round decimals with 1dp to nearest whole</li> <li>PS Lesson: round decimals (multi-step)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> <li>PS Skills Lesson: visualising</li> </ul>	<ul style="list-style-type: none"> <li>Money as decimals</li> <li>Convert between pounds and pence</li> <li>PS Lesson: converting between pounds and pence (more than one possibility)</li> <li>Compare amounts of money</li> <li>Estimate with money</li> <li>Calculate with money – use calculation policy methods</li> <li>PS Lesson: money problems real-life (multi-step)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> </ul>	<ul style="list-style-type: none"> <li>Angles as turns and identify angles</li> <li>Compare and order angles</li> <li>Triangles</li> <li>Quadrilaterals</li> <li>Lines of symmetry</li> <li>Complete symmetric figures</li> <li>PS Lesson: shape (logic)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> </ul>		<ul style="list-style-type: none"> <li>Angles as turns and identify angles</li> <li>Compare and order angles</li> <li>Triangles</li> <li>Quadrilaterals</li> <li>Lines of symmetry</li> <li>Complete symmetric figures</li> <li>PS Lesson: shape (logic)</li> <li>Assessment</li> <li>Pause &amp; Stretch</li> </ul>	