



Legrave Primary School

Year 3 EEE

Subject: Maths

Legrave Primary School

**STRIVING FOR EXCELLENCE, LEARNING FOR LIFE**

Yr 3	Emerging	Expected	Exceeding
<b>Number – number and place value</b>	Count in steps of 2 and 5 from 0, and in 10s to 100, forwards and backwards.	Count from 0 in multiples of 4, 8, 50 and 100	Count in multiples of 6, 7, 9, 25 and 1000
	Count in multiples of 3 to at least 30.	Read and write numbers up to 1000 in numerals and in words.	Count backwards through zero to include negative numbers
	Read and write numbers to at least 100 in numerals and words.	Find 10 or 100 more or less than a given number	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.
	Use place value to compare and order numbers up to 100 sometimes using less than (<), equals (=) and greater than (>) signs correctly.	Recognise the place value of each digit in a three digit number (100s, 10s and 1s)	Find 1000 more or less than a given number
	Identify and represent numbers using different representations including the number line.	Compare and order numbers to 1000	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
	Reason about place value and number facts and use them to solve problems.	Identify, represent and estimate numbers using different representations	Order and compare numbers beyond 1000
<b>Number - addition and subtraction</b>	Recall and use addition and subtraction facts for all numbers up to 10 fluently.		Round any number to the nearest 10, 100 or 1000
	Relate number facts to 10 to adding and subtracting multiples of 10 within 100.		Identify, represent and estimate numbers using different representations
	Begin to recall addition and subtraction facts to 20.		Solve number and practical problems that involve all of the above and with increasingly large positive numbers
	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems at least involving a 2-digit number and 1s or 10s.		
	Add and subtract numbers using objects, pictorial representations and the written columnar methods including: <ul style="list-style-type: none"> <li>a 2-digit number and 10s</li> <li>adding 2, 2-digit numbers</li> <li>simple cases of subtracting 2-digit numbers</li> <li>adding 3 single-digit numbers.</li> </ul>		Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
	Add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>a 2-digit number and 1s</li> <li>a 2-digit number and 10s</li> <li>2 simple, 2-digit numbers, which do not involve bridging a 10</li> <li>adding 3 single-digit numbers.</li> </ul>		Add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds</li> </ul>
Show that subtraction can't be done in any order.	Estimate the answer to a calculation and use inverse operations to check answers	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	
Solve simple 2-step problems with addition and subtraction, applying increasing knowledge of mental and written methods.	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Estimate to check answers to a calculation.	
<b>Number - multiplication and division</b>	Recall and use multiplication and division facts for the 10 multiplication table using the appropriate signs ( $\times$ , $\div$ and $=$ ).	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Use inverse operations to check answers to a calculation.
	Begin to recall and use multiplication and division facts for the 2 and 5 multiplication tables using appropriate signs.	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	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
	Make connections between multiplication and division by 2 and doubling and halving and use these to reason about problems and calculations.		Recall multiplication and division facts for multiplication tables up to $12 \times 12$
	Show that multiplication of 2 numbers can be done in any order (commutative).		Use place value, known and derived facts to multiply and divide mentally, including: <ul style="list-style-type: none"> <li>multiplying by 0 and 1</li> <li>dividing by 1</li> <li>multiplying together three numbers</li> </ul>
	Understand multiplication as repeated addition.		Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
	Recognise odd and even numbers to at least 100. Explain how they know a particular number is odd or is even.		Recognise and use factor pairs and commutativity in mental calculations
Begin to solve simple problems involving multiplication and division	Solve problems, 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.	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	

<b>Number - fractions</b>	Recognise, find, name and write fractions of a half of a length, shape, set of objects or quantity.	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	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. recognise and write decimal equivalents of any number of tenths or hundredths	
	Begin to find $\frac{1}{3}$ and $\frac{1}{4}$ of a small set of objects.	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	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 ones, tenths and hundredths	
	Recognise the equivalence of $\frac{2}{4}$ s and $\frac{1}{2}$ in practical contexts and when counting in fractions.	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	Compare numbers with the same number of decimal places up to two decimal places	
	Express simple problems using fraction notation and solve them.	Compare and order unit fractions, and fractions with the same denominators	Round decimals with one decimal place to the nearest whole number	
<b>Measurement</b>	Solve problems involving money of the same unit, including giving change, and other measures, including time.	Recognise and show, using diagrams, equivalent fractions with small denominators	Recognise and write decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$	
	Compare and order lengths, mass, volume or capacity and record the results using greater than (>), less than (<) and equals (=).	Recognise and show, using diagrams, equivalent fractions with small denominators	Recognise and show, using diagrams, families of common equivalent fractions	
	Reason about simple multiplicative relationships such as twice as long, 10 times as high.	Add and subtract fractions with the same denominator within one whole [for example, + = ]	Add and subtract fractions with the same denominator	
	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest labelled unit using rulers, scales, thermometers and measuring vessels.	Solve problems involving money of the same unit, including giving change, and other measures, including time.	Solve simple measure and money problems involving fractions and decimals to two decimal places.	
	Recognise and use the symbols for pounds (£) and pence (p)	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	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	
	Combine amounts to make a particular value.	Measure the perimeter of simple 2-D shapes	Solve problems involving money of the same unit, including giving change, and other measures, including time.	
	Find different combinations of coins that equal the same amounts of money.	Add and subtract amounts of money to give change, using both £ and p in practical contexts	Convert between different units of measure [for example, kilometre to metre; hour to minute]	
	Compare and order intervals of time.	Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	
	Recognise, tell and write the times: o'clock, half past and quarter past and begin to recognise quarter to the hour.	Know the number of seconds in a minute and the number of days in each month, year and leap year	Find the area of rectilinear shapes by counting squares	
	Draw hands on a clock to show the time on the hour and at half past.	Compare durations of events [for example to calculate the time taken by particular events or tasks].	Estimate, compare and calculate different measures, including money in pounds and pence.	
	<b>Geometry - properties of shapes</b>	Compare and sort common 2-D and 3-D shapes and everyday objects, on the basis of their geometric properties including vertices, sides, edges, faces.	Record and compare time in terms of seconds, minutes and hours	
		Identify lines of symmetry in a vertical line of 2-D shapes.	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks	
		Identify 2-D shapes on the surface of 3-D shapes.	Estimate and read time with increasing accuracy to the nearest minute	
		Solve problems involving shapes and reason about their properties.	Draw 2-D shapes.	
		Make 3-D shapes using modelling materials	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	
		Recognise 3-D shapes in different orientations and describe them	Identify lines of symmetry in 2-d shapes presented in different orientations	
		Recognise angles as a property of shape or a description of a turn	Complete a simple symmetric figure with respect to a specific line of symmetry.	
		Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn.	Identify acute and obtuse angles and compare and order angles up to two right angles by size	
		Identify whether angles are greater than or less than a right angle	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	
		Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Solve problems involving shapes and reason about their properties.	

