



My Year 5 Learning Journey for Mathematics

Strand		I am Working Towards Year 5's objectives with support (Emerging)	I am Working Towards Year 5's objectives (Developing)	I am Achieving Year 5's objectives (Secure)
NUMBER	Number & Place Value	1 I can order numbers to 10,000 and use symbols to compare. I can say what each number represents.	I can order numbers to 100,000 and use symbols to compare. I can say what each number represents.	* I can read, write, order and compare using $< > =$ whole numbers up to 1,000,000 (1 million) and say what each digit represents. I can give a number lying between any two of these numbers.
		2 I can read, write, order and compare using $< > =$ numbers with one decimal place and say what each digit represents. I can round them to the nearest whole number.	I can read, write, order and compare using $< > =$ numbers with up to two decimal places and say what each digit represents. I can give a number lying between any two of these numbers and round them to the nearest whole number.	* I can read, write, order and compare using $< > =$ numbers with up to three decimal places and say what each digit represents. I can give a number lying between any two of these numbers and round them to the nearest whole number.
		3 I can count forwards or backwards from any number to 10,000 in different size steps eg forwards or backwards from 9,875 in steps of 1000, 100 and 10.	I can count forwards or backwards from any number to 100,000 in different size steps eg forwards or backwards from 62,471 in steps of 10,000, 1000, 100 and 10.	I can count forwards or backwards with positive and negative numbers, passing through zero. I can solve real-life problems involving ordering negative numbers eg which is colder, -2°C or -10°C ?
		4 I can multiply and divide whole and decimal numbers by 10, with help.	I can multiply and divide whole decimal numbers with up to two decimal places by 10 and 100 eg work out $2.1 \times 10 = 21$ and $56 \div 100 = 0.56$.	*I can multiply and divide whole and decimal numbers with up to three decimal places by 10, 100 and 1,000.
	Addition, Subtraction, Multiplication & Division	5 I can work out \times and \div facts from the times tables up to 10×10 , with some help.	I can work out \times and \div facts from the times tables up to 10×10 and use my knowledge of these facts to multiply and divide larger numbers mentally eg 9×70 or 4×30	*I can quickly recall \times and \div facts from the times tables up to 12×12 and use my knowledge of these and other number facts to multiply and divide larger numbers mentally eg $25 \times 80 \times 2.5$
		6 I can work out calculations like $234 + 265$ and $834 - 365$ using formal column methods, with some help.	I can work out calculations like $8234 + 3265$ and $8234 - 3265$ using formal column methods.	* I can add and subtract whole numbers with more than four digits, using column addition and subtraction. I can use column addition or subtraction to add and subtract whole numbers and decimal numbers with 3 decimal places or a mixture of 1 and 2 decimal places eg $2.87 - 0.9$, $3.4 + 1.76$.
		7 I can multiply a 2 digit by a 1 digit number using a short written method. I can calculate 94×7 and 4×32 using a formal written method such as the grid method.	I can multiply a 3 digit by a 1 digit number using a short written method. I can calculate 964×7 and 64×32 using a formal written method such as the grid method.	*I can multiply a 4 digit by a 1 digit number using a short written method. I can multiply a 2 digit number by another 2 digit number using a written long multiplication method.
		8 I can divide a 3 digit number by a 1 digit number using chunking, relating a formal written method for short division.	I can calculate $714 \div 6$ using chunking, relating it to the formal written method of short division, and solve problems such as 'Lin wishes to buy 45 bottles of water. They are sold in packs of eight bottles. How many packs must she buy?' although I am often unsure of how to deal with the remainder.	*I can divide a 4 digit number by a 1 digit number using a formal written method for short division. I can decide how to show or deal with any remainders, depending on the problem.
		9 I can list the factors of numbers below 10 and arrange them in pairs that multiply to give 10. I can begin to explain what a prime number is, with some help. I can list the first five square numbers.	I can list the factors of numbers below 30 and arrange them in pairs that multiply to give 24. I can identify the prime numbers below 10. I can list the first eight square numbers and interpret 5^2 as $5 \times 5 = 25$.	I can find all the factor pairs of any number to 50 and find the common factors of two numbers. I can correctly list the prime numbers up to 19. I know all square and cubed numbers up to 100.
		10 I can use RUCSAC to help me solve real life problems, involving addition, subtraction, multiplication and division, with some help.	I can solve multi-step real-life problems involving $+$, $-$, \times , \div eg 'Dan has £5. He needs to keep £1.40 for the bus fare home. Can he afford a sandwich costing £1.90?'	*I can solve multi-step 'real-life' problems (including money) involving $+$, $-$, \times , \div or more than one of these. I can choose which operation and method to use and explain why.
		11 I can work out simple calculations with a missing number like $2 + ? = 11$.	I can understand how the equals sign is used in calculations and can solve simple missing number 'balancing sums' eg $4 + ? = 10 + 2$.	*I have a good understanding of the equals sign $=$ and can solve a range of missing number problems eg $3 + 12 = ? - 4$, $? + ? + 8 = ? + 11$, $5 \times ? = 18 + 12$.
	Fractions, Decimals, %	12 I can use doubling to create a set of equivalent fractions such as $\frac{1}{2}$, $\frac{2}{4}$, $\frac{4}{8}$ using equipment and with some help.	I can use doubling to create a set of equivalent fractions such as $\frac{1}{3}$, $\frac{2}{6}$, $\frac{3}{9}$.	*I can find, say and write equivalent fractions, using my \times tables or a fraction wall to help.
		3 I can use pictures, diagrams or equipment to show an improper fraction like $1 \frac{1}{2}$, with some help.	I can write mixed numbers as improper fractions eg 1 and $\frac{1}{4}$ as $\frac{5}{4}$ and, with pictures or apparatus explain my answer.	I can recognise mixed numbers and improper fractions and change one to the other
		4 I can identify the smaller out of two fractions eg $\frac{3}{8}$ and $\frac{1}{4}$ with pictures to help me.	I can order and compare fractions using a common denominator.	*I can compare, order, add and subtract fractions with the same denominator and denominators that are multiples of the same number eg $\frac{2}{3} < \frac{13}{18}$ $\frac{3}{4} + \frac{5}{12}$



		15	I can work out equivalent fractions, decimals and percentages for tenths 0.6 as 6/10 or 60% with some help.	I can work out equivalent fractions, decimals and percentages for tenths eg 0.6 as 6/10 or 60% . I know that 1%, one-hundredth, 0.01 and 1/100 all represent the same amount.	*I can work out equivalent fractions, decimals and percentages to 100% eg I understand 0.51 as 51/100 OR 51%.
		16	I can solve simple word problems involving fractions, decimals and percentages with some help.	I can solve word problems involving fractions, decimals and percentages involving 1/2 , ¼, 1/5, 2/5, 3/5, 4/5 and ¾. I can use pictures, diagrams or equipment to help me.	*I can solve word problems involving fractions, decimals and percentages including multiplying proper fractions, using equivalencies and ½, ¼, 1/5, 2/5, 3/5, 4/5, ¾ and tenths or twenty-fifths eg 'Which is more, 20% off or 0.75 of the full amount?' 'What fraction of £3 is 20p?
MEASURES		17	I can use my knowledge of multiplying and dividing by 10, 100 and 1000 to convert between kg and g, cm and m and km, ml and l with some help.	I can use my knowledge of multiplying and dividing by 10, 100 and 1000 to convert between kg and g, cm and m and km, ml and l. eg 2 kg to 2000 g and 200 cm to 2 m.	*I can convert between different units of metric measurement eg km/m, cm/mm, g/kg. Eg. I can use my knowledge of multiplying and dividing by 10, 100 and 1000 and to convert 3.1 kg to 3100 g and 250 cm to 2.5 m.
		18	I can work out the perimeter of an 'L shape' drawn on squared paper.	I can measure and work out the perimeter of shapes that need to be divided into 2 rectangles in cm or m.	*I can measure and work out the perimeter of shapes that need to be divided into 2 or more rectangles (composite rectilinear shapes / L shape) in cm or m.
		19	I can calculate the areas of rectangles including squares using cm squared.	I can calculate the areas of rectangles (including squares) using cm squared. I can solve problems involving areas and perimeters, giving at least one solution for problems such as 'A rectangle has a perimeter of 20 cm. Its length and width are whole numbers. What possible area could it have?	*I can calculate and compare the areas of rectangles (including squares) using cm squared. I can estimate the area of irregular shapes using a squared grid and solve problems involving areas and perimeters, giving different solutions eg. as 'A rectangle has a perimeter of 20 cm. Its length and width are whole numbers. What possible areas could it have? Which is the largest area?'
		20	I can work out simple time problems using a digital or analogue clock to help me. Eg. It was 3pm when I started my homework, I finished at 4:15pm. For how long was I doing my homework?	I can solve simple time problems which involve converting between units of time such as 'What date is it when you reach the hundredth day of the year?'	*I can solve time problems including working out time intervals on a digital or analogue clock and converting between units of time eg What date it is on the thousandth hour of the year? What is 3 ¼ hours in minutes?
		21	I can solve simple two step measures problems with some support.	I can solve two step measures problems eg'I need 0.6 m of ribbon and my friend needs six times as much. How much will we need altogether?'	*I can use all 4 operations to solve measures problems involving length, mass and capacity, including using decimals and scales. eg 'I need 0.6 m of ribbon and my friend needs six times as much. We buy 5 m between us. How much will be left?'
		22	I can draw or measure an angle which is a multiple of 10 eg 60° with support to draw it fairly accurately(within 3-5 degrees) and can accurately draw a line eg 7.4 cm.	I can identify acute, obtuse and reflex angles. I can draw or measure an angle of 35° fairly accurately (within 3-5 degrees)and accurately draw a rectangle with a whole number or half a cm eg measuring 8 cm by 7.5cm.	*I know angles are measured in degrees. I can estimate angles to within 5°, compare, draw and measure acute, obtuse and reflex angles. Eg. I can draw an angle of 48° accurately (within 1-2 degrees)and accurately draw a rectangle with given measurements eg measuring 4.5 cm by 9.7 cm.
		23	I can work out a missing angle in a right angle or on a straight line when the other angle is included	I can work out a missing angle on a straight line or around a point (360°) when the other angle is included.	I can work out missing angles around a point (360°) or on a straight line with more than 3 (around a point) or 2 angles missing (on a straight line).
		24	I can identify cubes and cuboids from perspective drawings with some help. I can decide whether a particular 2-D shape is regular or irregular with some help.	I can identify cuboids and pyramids from perspective drawings, and sort a set of 2-D shapes onto a Carroll diagram according to whether they have equal sides and whether they have equal angles.	I can identify 3D and 2D shapes from different perspectives, and show the difference between regular and irregular shapes using my knowledge of length of sides and angles, record my answers eg by sorting onto a Carroll diagram and explain my reasoning
STATISTICS		25	I can answer simple questions such as 'How much did the baby weigh at nine months old?' by looking at a line graph. I can complete tables and timetables with some help.	I can interpret an appropriate line graph and answer comparison questions about it eg 'How much heavier was the baby at nine months old than it was at six months old?' I can read a timetable to answer questions such as 'What time is the bus due to arrive in Elephant and Castle?'	I can solve comparison, sum and difference problems using information shown on a line graph. I can complete, read and interpret information shown on a range of tables, including timetables.

My Learning Reflection

Autumn Test Score:	Spring Test Score:	Summer Test Score:



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- All steps with an asterisk are KPI's (Key Performance Indicators)
- Numbering has no significance but is for ease of reference.
- 'Most' or 'Mostly' or 'nearly always' indicates that the statement is generally met with only occasional errors. If this is not specified in the 'Secure' column, the assumption is that the statement is nearly always met.
- 'Often' indicates that the skill is correctly demonstrated more often than not ie on more than half of occasions attempted.
- 'Some' or 'sometimes' indicates that the skill / knowledge is starting to be acquired, and is demonstrated correctly on occasion, but is not consistent or frequent.
- 'With support / help' indicates that the child needed some level of support or intervention to achieve the statement. If support is not specified, the assumption is that the child could achieve the statement independently.