



## Year 4 Maths Attainment and Progress Grid:

Content domain	Autumn	Assessment task	Spring	Assessment task	Summer	Assessment task
Number & Place Value	<ol style="list-style-type: none"> <li>Recognise, write and say all numbers up to 10,000 using different representations.</li> <li>Identify the value of each digit in a 4 digit number.</li> <li>Round any number up to four digits to the nearest 1000, 100 or 10.</li> <li>Solve problems that require rounding to 10,100, 1000.</li> <li>Count in multiples of thousand and mentally find 100 more or less than a number.</li> <li>Find and place numbers on a number line up to 10,000. Use their knowledge of number lines to identify the intervals in the line.</li> <li>Read and write roman numerals up to 100.</li> <li>Compare and order numbers up to 10,000.</li> <li>Count fluently in 25's.</li> <li>Count backwards through zero into negative numbers.</li> <li>See and interpret negative numbers in different contexts.</li> </ol>	EXS: 1. 4M10/3 2. 4M11/1 3. 4. 5. 6. 4M09/1 7. 8. 4M10/2 9. 10. 4M10/1 11. 12.		EXS:		EXS:
		EXS: 1) 4M10/3 2) 4M11/1 3) 4) 5) 6) 4M09/1 7) 8) 4M10/2 9) 10) 4MGD9/1 11) 12)		GDS:		GDS:
Addition & Subtraction	<ol style="list-style-type: none"> <li>Add and subtract multiples of 1's, 10's, 100's, 1000's mentally.</li> <li>Add and subtract 2 four digit numbers using formal written methods of addition and subtraction including when an exchange takes place.</li> <li>Use mental methods to complete addition and subtraction (equivalent difference).</li> <li>Use inverse operations, estimation and other checking strategies to check the answers to equations in addition and subtraction.</li> </ol>	EXS: 1. 4M12/2 2. 4M13/2 3. 4M12/1 – 4M14/1 4. 4M13/3 – 4M14/2 5.		EXS:		EXS:
		GDS: 1) 4MGD12/2 2) 4MGD13/2 3) 4MGD12/1 4) 4MGD13/3 4MGD14/2 5)		GDS:		GDS:



	5) Solve 1 and 2 step addition and subtraction problems with varying contexts.	6)				
Multiplication and Division	1) Multiply and divide by 10 and 100. 2) Child can recall all multiplication facts taught prior to year 4. 3) Child can recall multiplication and division facts for multiplication tables up to $12 \times 12$ including 6, 7, 9, 11 and 12 4) Children can see connection with 7 and the days of the week and use their times tables knowledge to solve practical problems.	EXS: 1. 2. 3. 4.	1) Children can mentally solve multiplication and division question of multiples taught in prior years. 2) Use written methods of multiplication to answer multiplications with 2 or 3 digit by a 1 digit number. 3) Child can multiply 3 digits together. 4) Child can find the factors of any number and use these to solve calculations mentally. 5) Divide a 2 digit number by a one digit number with remainders using mental methods of grouping numbers.	EXS: 1) 4M16/1 2) 4M17/2 3) 4) 4M16/2 – 4M17/1 5)		EXS:
		GDS: 1. 2. 3. 4.		GDS: 1) 4MGD16/1 2) 4MGD17/2 3) 4) 4MGD16/2 – 4MGD17/1 5)		GDS:
Fractions		EXS:	1) Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. 2) Count up and down in hundredths; recognise that tenths are when an object is divided by 10. 3) Recognise and show, using diagrams, families of common equivalent fractions. 4) Demonstrate fractions using a bar model. 5) Simplify fractions into their simplest form.	EXS: 1) 2) 3) 4M19/1 4) 4M18/2 5) 6) 4M18/1 7) 4M20/3 8) 4M19/1 – 4M21/2 9) 10) 11)	1 Make up a fraction or decimal number to create a whole. 2 Recognise and write decimal equivalents of any number tenths or hundredths. 3 Understand the place value of each number in a decimal. 4 Compare and order numbers with the same number of decimal places up to two decimal places. 5 Place decimal numbers on a number line. 6 Round decimals with one decimal place to the nearest whole number. 7 Recognise and write decimal equivalents to $1/4, 1/2, 3/4$ .	EXS: 1) 2) 3) 4MGD21/1 4) 5) 6) 7) 4M21/1
		GDS:	6) Recognise and show, using diagrams, if a fraction is larger than one and discuss these as mixed numbers and improper fractions. 7) Add and subtract fractions with the same denominator. 8) Find a fraction of an amount. 9) Solve worded problems using the bar model using all of the fractions knowledge above. 10) Recognise, represent and write decimal equivalents of any number of tenths or hundredths. 11) Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in	GDS: 1) 2) 3) 4M19/1 4) 4M18/2 5) 6) 4M18/1 7) 4M20/3 8) 4M19/1 – 4M21/2 9) 10) 11)		GDS: 1. 2. 3. 4MGD21/1 4. 5. 6. 7. 4M21/1



			the answer as ones, tenths and hundredths			
Measurement	<b>1) Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</b> 2) Find missing numbers for a length of a side to work out the perimeter. <b>3) Convert between meter, cm and km.</b>	EXS: 1) 4M22/1 2) 3) 4M23/1	<b>1) Find the area of rectangular shapes by counting squares.</b> 2) Estimate, compare and calculate different measures of area.	EXS: 1. 2.	<b>1) Solve simple money problems involving decimals.</b> 2) Understand the relationship between 100ths and 10ths and money. 3) Round money to the nearest decimal point or pound. <b>4) Order amounts of money.</b> 5) Use estimation to estimate an amount of money. <b>6) Solve 1 and 2 step problems using jottings and bar models that involve different amounts of money.</b> 7) Covert between different units of time including minutes to hours, 24/12 hour clock and solve problems.	EXS: 1. 2. 3. 4. 4M24/1 5. 6. 7.
		GDS: 1) 4MGD22/1 2) 3) 4MGD23/1		GDS: 1. 2.		GDS: 1. 2. 3. 4. 4MGD24/1 5. 6. 7.
Geometry		EXS:		EXS:	<b>1) Identify acute and obtuse angles.</b> 2) Compare and order angles up to two right angles by size. 3) Identify regular and irregular shapes. <b>4) Classify different types of triangles.</b> 5) Identify lines of symmetry in 2D shapes presented in different orientations. <b>6) Classify different types of quadrilateral.</b> 7) Complete a simple symmetric figure with respect to a specific line of symmetry. <b>8) Describe positions on a 2D grid as coordinates in the first quadrant.</b> <b>9) Plot specified points and draw sides to complete a given polygon.</b> 10) Describe movements between positions as translations of a given unit to the left/right and up/down.	EXS: 1. 4M25/1 2. 3. 4. 5. 4M26/1 6. 7. 8. 9. 10.
		GDS:		GDS:		GDS: 1. 2. 3. 4MGD25/1 4. 5. 4MGD26/1 6. 7. 8. 9. 10.
Statistics		EXS:		EXS:	1) Know what discrete and continuous data are. 2) Interpret and answer questions about discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. 3) Solve comparison, sum and difference problems using information presented in	EXS: 1) 2) 4M28/1 3)
		GDS:		GDS:		GDS: 1) 2) 3) 4MGD28/1



					bar charts, pictograms, tables and other graphs.	
<p>An expected Year 4 mathematician is able to use and complete all 4 operations using larger numbers using written formal methods of calculation. This builds upon a greater knowledge of all times tables up to and including 12 x 12, which the child can recall fluently and accurately. Developing on the skills learned from previous years, the child can now rationalise clearly about the methods they have used along with the choices of what they have done to solve questions, building upon links and connections made within numbers to solve more equations and problems using mental methods. It is not simply number and calculations when links have been established. The use of fractions has now developed from simple numbers to more complex. Numbers and the introduction of decimals allows the child to build links between the different areas of this. Their knowledge of fractions and decimals allows for greater accuracy in division but also to begin to use the four operations of fractions of numbers with support of the resources and pictures available. Finally, the child is also fluent in not only multiplication tables and number facts but also in real world situation and number: time, measurement, calendars. This allows them to recall these learned facts quickly so there is a reduction in cognitive load allowing for the child to become more successful in reasoning.</p>						
<p>A Year 4 mathematician working at greater depth is able to complete all of the above they are however even more efficient at the recall of facts and number which allows them to select and discuss their methods for solving equations. Furthermore, they are able to identify the most efficient methods for calculation and discuss other methods that may sow the same correct answer. They are also proficient at self-checking using the inverse, number facts and estimation correctly. Also, they have grown proficient at using drawing and jottings to support their understanding of what the questions are asking them to do as well as use previous examples to support their calculation.</p>						

[https://www.ncetm.org.uk/media/x45na0cs/mastery\\_assessment\\_y4.pdf](https://www.ncetm.org.uk/media/x45na0cs/mastery_assessment_y4.pdf)

The codes in the assessment tasks relate to the above document. Each code to the side of each area of study relates to an assessment task to be completed by the teacher to assess the proficiency of the class in different areas of maths. This could be done at the end of a lesson, as a small group as a test as a discussion: it's the teacher's choice. However, these should be completed at regular intervals as you teach different areas of the curriculum as they will help inform you of what your children need (support with certain areas) and these do not replace the reasoning and problem solving that should be present in every maths lesson. It also needs to be evidence in some way so that assessment can be moderated. Some statements do not have an activity number, this is due to it not being overtly shown in the booklet however all skills can be found in other tasks but may not be the main skill of the task.

The code is as below:

2M12/1 – The first number is the year group booklet the task is from. The letter is if it's mastery or mastery with greater depth column. The next number is the page and the final number is which activity it is on the page.

This one would be: year 2 booklet, Mastery column, page 12, 1<sup>st</sup> activity on the page.

6MGD19/4 – Year 6 booklet, Mastery with greater depth column, Page 19, 4<sup>th</sup> activity down.