

Year 5 Maths Attainment and Progress Grid:

Content domain	Autumn	Assessment task	Spring	Assessment task	Summer
Number & Place Value	 Read and write numbers to 1,000,000 using a variety of different representations. Explain the value of every digit in a number up to 1000000. Count forwards and backwards in powers of 10 to any number up to 1,000,000. Round any number up to 1,000,000 to the nearest 10 to 100,000. Place whole integers correctly onto a number line up to 1,000,000. Compare and order numbers up to 	EXS: 5M9/1- 10/1 5M9/2 5M10/2 GDS: •		EXS: GDS:	
 1,000,000. Know roman numerals up to 10,000 as well as recognise dates. Interpret negative numbers in context. Count forwards and backwards with positive and negative whole numbers, including through zero. 	 5MGD9/1- 10/1 5MGD9/2 5MGD10/2 				
Addition & Subtraction	 Add whole digit numbers that have more than 4 digits using formal written methods of addition including exchanging. Subtract whole digit numbers that 	EXS: • 5m11/1 – 12/2 •		EXS:	
	 have more than 4 digits using formal written methods of subtraction including exchanging. Use rounding, the inverse, estimation and known number facts to check the answers to their questions. 	GDS: • 5MGD11/1 - 12/2 • •		GDS:	
Multiplication and Division	 Find multiples of numbers. Identify factors of numbers including common factors of 2 numbers. 	EXS: • 5M15/1 – 16/2 – 16/3 •	 Multiply a 2 digit number mentally using known number facts and demonstrate how they completed it. 	EXS:	



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	 Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19. Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) understanding the link between concrete cubes of numbers and the numbers themselves. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. Understand and use the inverse operation to find the answers to questions and to check answers. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000. 	• M15/2 - 16/1 • GDS: • 5MGD15/1 - 16/2 - 16/3 • • • 5MGD 15/2 - 16/1 •	 Multiply a number up to 4 digits by a 2 digit number using formal written methods of multiplication. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division. Interpret remainders appropriately for the context: remainders, decimals or fractions. Identify if numbers will have remainders or not (prime/ odd when dividing by 2). 	GDS:	
Fractions		EXS: GDS:	 Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. Simplify fractions to their simplest form. Convert between mixed numbers and improper fractions as well as write statements as mixed numbers. Compare and order fractions of the same multiple denominator including mixed numbers and improper fractions. Identify that a fraction is related to division and know to divide the numerator by the denominator to find another fractions. Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Add and subtract mixed numbers and infractions as well as find fractions of contexts. 	EXS: 5M18/3 5M17/1- 18/1 5M19/1 5M19/3 5M19/3 5M19/3 5M20/1 - 20/2 GDS: 5GDM18/3 •	 Add and subtract decimals: from diplaces as well and version and provide the second and the second area well and the second and the second area well and the second and the second area well as w





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ract fractions of up to 3 m different decimal l as whole numbers. ms in differing contexts nber up to three es. mpare numbers with ecimal places in texts. d use thousandths and o tenths, hundredths equivalents. divide number imals by 10, 100 and	EXS:	5M12/1 5M13/1
	GDS: • •	5MGD12/1 5MGD13/1



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			 Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Find fractions of amounts using diagrams and independently. Read and write numbers with up to three decimal places representing them using different representations. Order and compare numbers with up to three decimal places. Read and write decimal numbers as fractions. Order and compare numbers with up to three decimal places. Read and write decimal numbers as fractions. Round decimals to varying decimal places. Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', Write percentages as a fraction with denominator 100, and as a decimal. Find and recall simple relationships between decimal, percentages and fractions. Solve problems that require knowing decimal, % and fraction equivalents that are multiples of 10 and 25. 	5GDM17/1- 18/1 5GDM19/1 5GDM19/3 5GDM19/3 5GDM20/1 - 20/2		
Measurement	 Measure perimeter of rectangular and composite shapes. Calculate the perimeter of rectangular and composite shapes. Calculate the area of rectangles and squares using standard units (cm² and m²) Compare the area of different shapes. Estimate the area of irregular shapes. 	EXS: 5M23/2 6 6 6 5MGD23/2 6 6 6		EXS: GDS:	 Convert between different units of metric measure. Use all four operations to solve problems involving measure using decimal notation, including scaling. Represent conversion of measure using a number line and practical implementations. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Convert units of time and use this knowledge to answer questions on time and timetables. Understand what volume and capacity are. Measure and compare different capacities and volumes. 	EXS: 5M21/1 - 23/1 5M22/1 - 22/2 5M24/1 GDS: 5MGD21/1 -23/1 5MGD22/1 -22/2







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e [for example, using build cuboids s)] and capacity [for water].	• • 5MGD24/1 •
es at a point and one al 360°) and deduce s size. es at a point on a d deduce their size. rn (total 180) and	EXS: • 5M26/1
of 90. s accurately using a wing angles are grees. ompare acute,	• • 5M26/2 •
ex angles. les using degrees. ties of rectangles to culate related facts	• 5M27/1 •
draw parallel lines. draw perpendicular veen regular and	GDS:
ns based on t equal sides and pes, including cubes ids, from 2D	• • 5MGD26/2
be and represent the ape following a anslation, using the guage, and know has not changed. ctions and ng co-ordinates on a	• 5MGD27/1 •
•	EXS:
	GDS:



information presented in a line	• 5M29/1		
graph.	•		
• Create and draw a line graph based			
on continuous data.			

An expected year 5 mathematician shows proficiency and understanding of place value up to a 100 thousand with ease understanding with clarity the value of each digit as well and decimal numbers and negative numbers including rounding, adding, subtracting, multiplying and dividing by multiples of 10, 100 and 1000. They are able to sue this knowledge to quickly and accurately complete questions mentally. This is supported by a secure understanding of all their multiplication tables which can be recalled fluently without support. This knowledge of number allows the child to build connections with factions and decimals that are greater than 1 and well and begin to use the 4 operations on these different numbers. They now know and can use all compact forms of the 4 operations but also know when to use it and then to use mental methods of calculation. This leads to the learner being able to select the most efficient method and also justify why that method they selected was the most efficient. Furthermore, this is supported by the use of jottings and drawing effectively and independently and a reduced reliance on concrete resources to support understanding. This supports worded problems as the child is able to be successful with a mixture of questions by using the previously mentioned techniques, visualising the question and building up resilience to attempt questions that they perceive and difficult or new.

A year 5 mathematician at greater depth can bring the differing concepts together and think logically and carefully to solve a range of different problems across the curriculum. This is supported by a confident knowledge of fluency facts and the resilience to attempt and maintain focus throughout longer maths tasks and procedures. When sharing thoughts around maths, the correct vocabulary is used precisely, and they are able to write explanations in detail to build upon their learning. They also add clarity to their peers and are able to see misconceptions and mistakes in calculations to improve other and give clear feedback.

https://www.ncetm.org.uk/media/lp0o2lgv/mastery_assessment_y5.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, 1st activity on the page.

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

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