



Year 6 Maths Attainment and Progress Grid:

Content domain	Autumn	Assessment task	Spring	Assessment task	Summer	Assessment task
Number & Place Value	<ul style="list-style-type: none"> • Read, write, order and determine the value of every digit in numbers up to 1 million. • Identify the location of a whole number up to 1 million on a number line. • Compare and order any whole number up to 1 million. • Round any whole number to any degree of accuracy. • Count up and down negative numbers, compare numbers that are positive and negative and calculate intervals across zero. 	EXS: <ul style="list-style-type: none"> • M9/1 • • M10/1 • M10/2 • M11/1 		EXS:		EXS:
		GDS: <ul style="list-style-type: none"> • GD9/1 • • GD10/1 • GD10/2 • GD11/1 		GDS:		GDS:
Addition & Subtraction	<ul style="list-style-type: none"> • Solve addition and subtraction multi-step problems using column subtraction and addition. 	EXS: <ul style="list-style-type: none"> • M13/1 • M14/1,2 		EXS:		EXS:
		GDS: <ul style="list-style-type: none"> • M13/1 • M14/1,2 		GDS:		GDS:
Multiplication and Division	<ul style="list-style-type: none"> • Multiply a 4 digit number by a 2 digit number using column long multiplication. • Divide numbers up to 4 digits by 2 digits using formal written methods of division. • Interpret remainders either as whole numbers, fractions, decimals or rounding the whole number. • Identify and explain what a common multiple, common factor and prime numbers are. • Identify what square and cubed numbers are as well as find what a number squared is. • Use their knowledge of the order of operations to carry out calculations involving the four operations – including brackets and indices. 	EXS: <ul style="list-style-type: none"> • • • • • M13/3, 16/2 • • M15/1, 16/1 	<ul style="list-style-type: none"> • Multiply and divide any whole or decimal number by 10, 100 or 1000. 	EXS: <ul style="list-style-type: none"> 1) M17/1 		EXS:
		GDS: <ul style="list-style-type: none"> • • • • • • MGD13/3, 16/2 • 		GDS:		GDS:



	<ul style="list-style-type: none"> Perform mental calculations and select the most effective method to find an answer. Use facts they already know in order to answer questions and support mental calculations. 	<ul style="list-style-type: none"> MGD,15/1, 17/1 				
Fractions	<ul style="list-style-type: none"> Simplify fractions into their simplest form or to an equivalent. Compare and order fractions and mixed numbers. Order fractions and mixed numbers on a number line. Add fractions/ mixed numbers with differing denominators that go over the whole. Subtract fractions/ mixed numbers with differing denominators that go over the whole. Multiply a fraction by a whole amount. Multiply a fraction by another fraction. Divide a fraction by a whole number Solve worded problems that include the 4 operations and fractions. Find fractions of amounts. 	<p>EXS:</p> <ul style="list-style-type: none"> M18/1,2 M20/1 M21/2 M 21/2 M22/2 M21/2 <p>GDS:</p> <ul style="list-style-type: none"> MGD18/1,2 MGD20/1 MGD21/2 MGD21/2 MGD22/2 MGD21/2 	<ul style="list-style-type: none"> Find the equivalent decimal, fraction and percentage understanding the value of each digit of a decimal number. Compare and order decimals, percentages and decimals. Multiply decimals with up to 2 decimal places by a 1 digit number. Divide decimals by a single number knowing which form the remainder should be in (decimal, fractions, rounding or remainder). Find a percentage of an amount. Find a missing whole number when given a percentage of the whole. 	<p>EXS:</p> <ul style="list-style-type: none"> M21/3 M24/1 – 25/3 <p>GDS:</p> <ul style="list-style-type: none"> MGD21/3 		<p>EXS:</p>
Algebra		<p>EXS:</p>	<ul style="list-style-type: none"> Find a rule with 1 or 2 steps and explain what the input and output will be. Write expressions based on simple rules and write expressions of missing number problems. Create formulae of shapes and common rules in order to find areas or perimeters. Find pairs of numbers that will satisfy 2 unknowns. 	<p>EXS:</p> <ul style="list-style-type: none"> M14/3 – 27/2 – 28/1 M29/4 <p>GDS:</p> <ul style="list-style-type: none"> M14/3 – 27/2 – 28/1 M29/4 		<p>EXS:</p>
Measurement		<p>EXS:</p>	<ul style="list-style-type: none"> Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and 	<p>EXS:</p> <ul style="list-style-type: none"> M31/1 – 33/1 – 32. 	<ul style="list-style-type: none"> Solve problems using analogue and digital clocks along with finding missing durations. Solve problems using timetables and calendars. 	<p>EXS:</p> <ul style="list-style-type: none"> M30/1 – M31/1



			<ul style="list-style-type: none"> vice versa, using decimal notation to up to three decimal places. 	<ul style="list-style-type: none"> 		
		GDS:	<ul style="list-style-type: none"> Understand which measure is appropriate to use for differing situations. Convert between miles and KM. Understand and conceptualise the basic units of imperial measure. 	GDS: <ul style="list-style-type: none"> MGD31/1 – 33/1 – 32. 		GDS: <ul style="list-style-type: none"> MGD30/1 – MGD31/1
Geometry	<ul style="list-style-type: none"> Plot and describe co-ordinates on a single quadrant and 4 quadrant grid. Find missing co-ordinates from the information given. Translate and reflect shapes across quadrants. 	EXS: <ul style="list-style-type: none"> M35/3 M36/3 	<ul style="list-style-type: none"> Find the area and perimeter of different shapes (quadrilaterals, parallelograms, triangles and compound shapes) by counting squares or using the lengths of edges. Solve problems using knowledge of shape, area and perimeter. Find the volume of different cuboids including finding the length of edges by dividing the whole volume. 	EXS: <ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Measure and draw 2d shapes including angles using a protractor. Compare and classify geometric shapes based on their properties and sizes. Find unknown angles in any triangles, quadrilaterals, and regular polygons. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles Locate and name different parts of a circle and understand that the radius is double the diameter. Recognise, describe and build simple 3-D shapes, including making nets. Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. 	EXS: <ul style="list-style-type: none"> M35/2 M35/1 M36/3
		GDS: <ul style="list-style-type: none"> MGD35/3 MGD36/3 		GDS:		GDS: <ul style="list-style-type: none"> MGD35/2 MGD35/1 MGD36/3
Ratio and proportion		EXS:	<ul style="list-style-type: none"> Use the ratio symbol to show unequal sharing as well as write objects I Child can find scale factors as well as draw shapes when given a scale factor. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. 	EXS: <ol style="list-style-type: none"> M16/3 – 23/1 M25/2 		EXS:
		GDS:		GDS: <ol style="list-style-type: none"> MGD16/3 – 23/1 MGD25/2 		GDS:
Statistics		EXS:		EXS:	<ul style="list-style-type: none"> Find the mean as an average of amounts. 	EXS: <ul style="list-style-type: none"> M38/2



					<ul style="list-style-type: none"> • Find a missing amount from the mean average. • Interpret the information from a pie chart and its links to percentages and fractions. • Construct pie charts, line graphs and bar charts. • Interpret the information of line graphs. 	<ul style="list-style-type: none"> • M37/1 • M39/1
		GDS:		GDS:		GDS: <ul style="list-style-type: none"> • MGD38/2 • MGD37/1 • MGD39/1
<p>An expected Year 6 mathematician can manipulate number and place value up to a million with ease understanding with clarity the value of each digit as well as decimal numbers and negative numbers including rounding, adding, subtracting, multiplying and dividing by multiples of 10, 100 and 1000. They are proficient and quick at using compact forms of the 4 operations including long division which requires speed of their times tables up to 12 but also related number facts. All these skills equate to a learner who is able to not only answer questions quickly or mentally but also select the best way to complete questions from a range of different strategies. The child's knowledge of number allows them to quickly build links with fractions, decimals and percentages and use 4 operations on these as well and find amounts of whole numbers. They are able to use jottings (especially bar models) to deconstruct worded problems about any topic area in maths and select the correct method in order to find the answer to any question. They are determined and resilient in the face of word problems and continue to work hard to resolve it independently by asking themselves questions (What do I know?/ What don't I know? What's the same?/ What's different) and visualising what is happening in the question.</p>						
<p>A Year 6 mathematician at greater depth can bring separate concepts together and think logically about another area of learning. Identifying the differing topics that are contained within questions. When shown problems and models which are unfamiliar, they are able to construct in their mind links to separate parts of their learning in order to solve the question. They show all the drive and determination of an expected mathematician however, they are able to write and discuss in precise detail with correct vocabulary without prompting their thoughts and opinions about a problem. They are also able to make complex problems seem clear to their peers and discuss succinctly the steps to take to complete problems.</p>						

https://www.ncetm.org.uk/media/uitj1x5g/mastery_assessment_y6.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.