- Growing Tomorrow's Leaders -

Maths Teacher Assessment Grid. Year EYFS.

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Geometry
Counting to 5.	Sorting into groups.	Practically solve problems involving doubling.	Time: Using every day language related to times in their day.	Shape and Space: Spatial awareness.
Recognising and selecting numerals to 5.	One more to 10.	Practically solve problems involving halving.	Time: Measure short periods of time.	Shape and Space: Talks about shapes of everyday objects in the environment.
Counting to 10.	One less to 10.	Recognise odd and even numbers in practical contexts.	Time: Order and sequence familiar events.	Shape and Space: using mathematical language for 3D shapes.
Recognising and selecting numerals to 10.	Addition by counting all.	Practically solve involving sharing equally.	Measure: order two or three items by length or height.	Shape and Space: using mathematical language for 2D shapes.
Counting out a quantity from a larger group.	Number bonds to 5.		Measure: order two or three items by weight and capacity.	Exploring Patterns: Using familiar objects and common shapes to create patterns.
Comparing quantities of identical and non-identical objects (more, less, same).	Number bonds to 10.		Measure: compare length, height, weight and capacity using non-standard measures.	Exploring Patterns: Exploring more complex patterns.
Estimating how many (to 10) and check by counting.	Addition by counting on.		Begin to use everyday language related to money.	
	Subtraction by counting all.		Using positional language such as behind, next to.	
	Subtraction by counting back.			

Maths Teacher Assessment Grid. Year 1

- Growing Tomorrow's Leaders -

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions	Geometry
Read and write numbers from 1 to 20 in digits and words.	**Read, write and understand calculations with +, - and = signs.**	**Use arrays to multiply.**	**Know and use words relating to days of the week.**	**Recognise, find and name a half as one of two equal parts of an object.**	**Describe position.**
Given a number, identify one more and one less.	Add and subtract one digit numbers **to 20.**	**Solve one-step multiplication problems, using concrete objects and pictorial representations.**	**Know and use words relating to dates such as weeks and months.**	**Recognise, find and name a half as one of two equal parts of a shape.**	**Describe direction.**
Count, **read and write numbers to 100 in digits.**	Add and subtract two digit numbers **to 20.**	**Solve one-step division problems, using concrete objects and pictorial representations.**	Sequence events in chronological order **using time conjunctions.**	**Recognise, find and name a half as one of two equal parts of a quantity.**	**Describe movement.**
Count to and across 100, forwards and backwards from any number.	**The effect of adding and subtracting 0 is understood.**	**Count in multiples of 2, 5 and 10.**	**Recognise and know the value of different coins and notes.**	**Recognise, find and name a quarter as one of two equal parts of an object.**	**Can turn whole, half and three-quarters.**
Identify and represent numbers using objects, pictorial representations **and the number line.**	Represent and use number bonds **to 20.**	**Share and group small amounts.**	Begin to measure and **record** lengths, heights, mass and weights.	**Recognise, find and name a quarter as one of two equal parts of a shape.**	Recognise **and name** common 2D shapes.
Explain whether a number is **equal to,** more than, less than, **most or least.**	Show and use subtraction facts **within 20.**	Double single digit numbers.	Begin to measure and **record** capacity and volume.	**Recognise, find and name a quarter as one of two equal parts of a quantity.**	Recognise **and name** common 3D shapes.
Recognise and name odd and even numbers.	**Solve one-step addition problems using concrete objects and pictorial representations.**		**Begin to measure and record time in hours, minutes and seconds.**	**Know how many halves there are in a whole.**	
	Solve one-step subtraction problems, using concrete objects and pictorial representations.		**Tell the time to the hour, half past and draw the hands on a clock face to show these times.**	**Know how many quarters there are in a whole.**	
	Solve missing number problems. 7 = ☐ - 9		**Compare different measures.**		

Maths Teacher Assessment Grid. Year 2

- Growing Tomorrow's Leaders -

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions	Geometry	Statistics
Count in steps of 2,3 and 5 from 0 and from any number, forward and backward.	Solve problems with addition and subtraction, using concrete objects and pictorial representations.	Recall and use x **and ÷ facts** for the 2, 5 and 10 times tables.	Choose and use appropriate **standard units to estimate and measure. (m, cm, kg, g, °c, L, ml)**	**Write simple fractions.**	**Identify and describe the properties of 2D shapes, including the number of sides.**	**Interpret and construct simple pictograms.**
Count in steps of 10 from any number, forwards and backwards.	**Recall** and use addition and subtraction facts to 20 **fluently.**	**Connect the 5 times tables to the clock face.**	**Measure to the nearest unit using rulers, scales, thermometers and measuring vessels.**	Recognise, find, name **and write fractions ⅓, ¼, two quarters and ¾** of a length.	**Identify lines of symmetry in 2D shapes.**	**Interpret and construct simple tally charts.**
Recognise the place value of each digit in a two-digit number. (tens, ones)	**Derive and use related facts up to 100.**	Recognise odd and even numbers.	Compare **and order** lengths, mass, volume and capacity **and record results using <, > and =.**	Recognise, find, name **and write fractions ⅓, ¼, two quarters and ¾** of a shape.	**Identify and describe the properties of 3D shapes, including number of edges, vertices and faces.**	**Interpret and construct block diagrams.**
Partition two-digit numbers in different ways.	Add and subtract two-digit numbers with ones and then tens. (written and mental)	**Calculate multiplication statements using the x and = signs.**	**Recognise and use symbols for pounds and pence and combine amounts to make a particular value.**	Recognise, find, name **and write fractions ⅓, ¼, two quarters and ¾** of a quantity.	Identify 2D shapes on the surface of 3D shapes.	**Interpret and construct tables.**
Identify, represent and estimate numbers in different ways **– including a number line.**	Add and subtract two, 2-digit numbers with ones and tens. (written and mental)	**Calculate division statements using the ÷ and = signs.**	**Find different combinations of coins that equal the same amounts of money.**	Recognise, find, name **and write fractions ⅓, ¼, two quarters and ¾** of objects.	**Compare and sort common 2D and 3D shapes.**	**Ask questions about totalling and comparing data.**
Compare and order numbers from 0-100.	**Add three one-digit numbers.**	**Show that multiplication is commutative.**	**Compare and sequence intervals of time.**	**Recognise equivalents.**	**Order and arrange combinations of objects in patterns and sequences.**	**Answering questions about totalling and comparing data.**
Use <, > and = signs.	**Show that addition is commutative, but that subtraction isn't.**	**Show that division is not commutative.**	Tell and write the **time to five minutes, including quarter past, quarter to** and draw the hands on the clock face to show these times.	**Connect fractions to equal grouping and sharing.**	Use mathematical vocabulary to describe position, direction and movement.	
Read and write numbers to at least 100 in digits and words.	**Recognise and use the inverse relationship between addition and subtraction and use this to check calculations.**	Solve problems using multiplication and division.	**Know the number of minutes in an hour and the number of hours in a day.**	**Count in fractions on a number line, go past one whole.**	Understand rotation as turns.	
Use place value and number facts to solve problems.	Solve missing number problems. 7 = ☐ - 9	Use arrays **and repeated addition.**	**Solve problems involving money, including giving change.**			

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Maths Teacher Assessment Grid. Year 3.

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions	Geometry	Statistics
Read and write numbers **up to 1000** in digits and in words.	Add and subtract a **3-digit** number and ones mentally.	**Use mental strategies to multiply and divide a 2-digit number by a 1-digit number.**	Measure, compare**, add and subtract** lengths. (m/cm/mm).	**Count up and down in tenths.**	**Draw** 2D shapes.	**Interpret and present data using bar charts.**
Recognise the place value of **each digit in a three-digit number. (hundreds, tens, ones)**	Add and subtract a **3-digit** number and tens mentally.	**Use efficient written methods to multiply and divide a 2-digit and a 1-digit number.**	Measure, compare, **add and subtract** mass. (kg/g).	**Recognise that tenths arise from dividing an object into 10 equal parts.**	**Make 3D shapes using modelling materials.**	Interpret **and present data** using pictograms.
Find 10 or 100 more or less than a given number.	Add and subtract a **3-digit** number and hundreds mentally.	**Write** and calculate mathematical statements for multiplication and division using times tables that they know.	Measure, compare, **add and subtract** volume/capacity. (l/ml).	**Connect tenths to division by 10.**	**Recognise 3D shapes in different orientations and describe them.**	Interpret **and present data** using tables.
Identify, represent and estimate numbers using different representations.	Add and subtract numbers **with up to three digits, using columnar methods.**	Recall and use multiplication and division facts for **the 3 times tables.**	**Measure the perimeter of a 2D shape.**	Find and write fractions for a set of objects.	**Distinguish whether polygons are symmetrical or non-symmetrical.**	**Understand and use simple scales (2,5,10 per cm) with increasing accuracy.**
Count from 0 in multiples of 4, 8, 50 and 100.	Solve addition and subtraction problems.	Recall and use multiplication and division facts for **the 4 times tables.**	**Add and subtract amounts of money** to give change using £ and p.	**Recognise and use fractions as numbers.**	**Recognise angles as a property of a shape or a description of a turn.**	**Solve one-step questions using presented data.**
Compare and order numbers **up to 1000.**	**Estimate the answer to a calculation.**	Recall and use multiplication and division facts for **the 8 times tables. (Use doubling to connect these tables)**	**Tell and write the time from an analogue clock in 12 and 24-hour clocks.**	Recognise and **show (using pictorial representations)** equivalent fractions.	**Identify right angles.**	**Solve two-step questions using presented data.**
Solve number problems **and practical problems** involving these ideas.	Use inverse operations to check answers.	Solve multiplication and division problems.	**Tell the time using Roman numerals from I to XII.**	**Add and subtract fractions with the same denominator, within one whole.**	**Recognise that two right angles make a half-turn, 3 make ¾ of a turn and 4 make a complete turn.**	
	Solve missing number problems. 27 - ☐ = 16	**Solve missing number problems. 6 x ☐ = 24**	**Estimate** and read time **to the nearest minute and compare times using appropriate vocabulary.**	**Compare and order unit fractions and fractions with the same denominators.**	**Identify whether angles are greater than or less than a right angle using acute or obtuse.**	
		Use commutativity and associativity to derive related facts. 30x2=60. 60÷3=20. 20=60÷3.	**Know the number of seconds in a minute and days in each month, year and leap year.**	**Solve problems involving all of the above.**	**Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.**	

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HT Maths Teacher Assessment Grid. Year 4.

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions and Decimals	Geometry	Statistics
Count in multiples **of 6, 7, 9, 25 and 1000.** Find **1000** more or less than a given number.	Add numbers with **up to 4 digits using efficient methods. (columnar)**	Recall multiplication and division facts for times tables **up to 12 x 12.**	**Convert between different units of measure: km-m. Hour-minute.**	Recognise and show (using pictorial representations) **families of common** equivalent fractions.	**Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.**	Interpret and present data using bar charts.
Count backwards through 0 to include negative numbers.	Subtract numbers with **up to 4 digits using efficient methods. (columnar)**	**Use place value and known derived facts** to multiply and divide mentally.	Measure **and calculate** the perimeter of a **rectilinear figure in cm and m.**	Count up and down in **hundredths; understand the link between dividing by 100 and dividing tenths by 10.**	Identify acute and obtuse angles and **compare and order angles up to two right angles by size.**	Interpret and present data **using time graphs.**
Recognise the place value of each digit in a **four-digit number. (Thousands, hundreds, tens and ones.)**	Estimate **to check answers** to a calculation.	**Multiply together three numbers.**	**Find the area of rectilinear shapes by counting squares.**	Add and subtract fractions with the same denominator.	Identify lines of symmetry in 2D shapes **presented in different orientations.**	**Solve' comparison' problems using information presented in bar charts, pictograms, tables and other graphs.**
Compare and order numbers **beyond** 1000. Identify, represent and estimate numbers using different representations.	Use inverse operations to check answers to a calculation.	**Understand the effect of multiplying by 0.** **Recognise and use factor pairs in mental calculations.**	Estimate, compare and calculate different measures, including money in pounds and pence.	**Recognise and write decimal equivalents of any number of tenths or hundredths.** **Recognise and write decimal equivalents to ¼, ½ and ¾.**	**Complete a simple symmetric figure with respect to a specific line of symmetry.**	
Round any number to the nearest 10, 100 or 1000. Solve number and practical problems involving all of the above.	Solve **addition two-step problems deciding which operations and methods to use and why.**	Multiply two-digit numbers by a one-digit number, **using formal written layout.** **Multiply three-digit numbers by a one-digit number using formal written layout.**	**Read, write and convert time between analogue and digital 12 and 24-hour clocks.**	**Find the effect of ÷ a number by 10 and 100 and identify the value of the digits in the answer as ones, tenths and hundredths.** **Round decimals with one d.p to the nearest whole number.**	**Describe positions on a 2D grid as coordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down.**	**Solve sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.**
Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value.	Solve **subtraction two-step problems deciding which operations and methods to use and why.**	Recognise and use commutativity in calculations. Solve multiplication and division problems.	**Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.**	**Compare numbers with the same number of decimal places. (up to 2 d.p)** **Solve measure and money problems involving fractions and decimals. (up to 2 d,p)**	**Plot specified points and draw sides to complete a given polygon.**	**Begin to record change over time.**

Maths Teacher Assessment Grid. Year 5

- Growing Tomorrow's Leaders -

Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions and Decimals	Geometry	Statistics
Read, write, order and compare numbers to at least 1,000,000.	Add and subtract whole numbers **with more than 4-digits,** using formal columnar methods.	**Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers.**	Convert between different units of **metric** measure. Km – m, **cm – mm, g – kg.**	**Compare and order fractions whose denominators are all multiples of the same number.**	Identify 3D shapes, including cubes and other cuboids, **from 2D representations.**	Solve comparison problems using information presented **in a line graph.**
Know what each digit represents in numbers to 1,000,000.	Add and subtract mentally **with increasingly large numbers.**	**Know and use vocabulary of prime numbers, prime factors and composite (non-prime) numbers.**	**Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds, pints.**	**Identify, name and write equivalent fractions of a given fraction. Represent visually, including tenths and hundredths.**	**Know angles are measured in degrees: estimate** and compare acute, obtuse **and reflex angles.**	Solve sum problems using information presented **in a line graph.**
Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.	**Use rounding to check answers to calculations.**	**Establish whether a number up to 100 is prime and recall prime numbers up to 19.**	Measure and calculate the perimeter of **composite rectilinear shapes** in cm and m.	**Recognise mixed numbers and improper fractions and convert from one form to the other.**	**Draw given angles and measure them in degrees (°)**	Solve difference problems using information presented **in a line graph.**
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero.	Solve addition and subtraction **multi-step problems in contexts,** deciding which operations and methods to use and why.	Multiply and divide **numbers up to 4-digits by a 1-digit number** using a formal written method. **(including long multiplication for two-digit numbers and short division with remainders)**	**Calculate and compare** the area of rectangles and **squares using cm² and m² and estimate the area of irregular shapes.**	Add and subtract fractions with the same denominator **and denominators that are the multiples of the same number.**	**Identify angles at a point, on a straight line, ½ a turn (180°) and one whole turn. (360°)**	Complete, read and interpret information in tables, **including timetables.**
Round **any number up to 1,000,000** to the nearest 10, 100, 1000, **10,000 and 100,000.**		Multiply and divide numbers mentally drawing upon known facts.	**Estimate volume and capacity using water.**	**Recognise the % symbol.**	**Use the properties of rectangles to deduce related facts and find missing lengths and angles.**	
Solve number and practical problems that involve all of the above.		**Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.**	Solve problems involving converting between units of time.	**Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.**	**Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.**	
Read Roman numerals **to 1000 (M) and recognise years written in Roman numerals.**		**Recognise and use square and cube numbers and the notation for both. (², ³)**	**Use all four operations to solve problems involving measure – length, mass, volume, money – using decimal notation & scaling.**	**Read and write decimal numbers and percentages as fractions.**		
Recognise and describe linear number sequences, including fractions and decimals, finding the term-to-term rule.		Solve problems on all of the above.		**Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.**	Identify, describe and represent the position of a shape **following a reflection or** translation.	
				Round decimals with two decimal places to the nearest whole number and to one decimal place.		

Maths Teacher Assessment Grid. Year 6

- Growing Tomorrow's Leaders -

Number, Place Value and Algebra	4 operations	Ratio and Proportion	Measurements	Fractions and Decimals	Geometry	Statistics
Read, write, order and compare numbers up to **10,000,000 and determine the value of each digit.**	Multiply up to 4-digit numbers by 2-digit numbers using long multiplication.	**Solve problems involving the relative sizes of two quantities where missing values can be found by using integer x and ÷ facts.**	Solve problems involving the calculation and conversion of units of measure, **using decimal notation up to 3d.p.**	**Use common factors to simplify fractions and use common multiples to express fractions in the same denomination.**	**Draw 2D shapes using given dimensions and angles.**	**Interpret pie charts.**
Round any whole number.	**Divide up to 4-digits by 2-digits using long division** and 4-digits by 1-digit using short division.	**Solve problems involving the calculation of percentages.**	Use, read, write and convert between standard units.	Compare and order fractions, **including fractions >1.**	**Recognise, describe and build simple 3D shapes, including making nets.**	**Construct pie charts**
Use negative numbers in context **and calculate intervals across zero.**	**Interpret remainders as whole numbers, fractions or by rounding.**	**Solve problems involving similar shapes where the scale factor is known or can be found.**	**Convert between miles and kilometres.**	+ and – fractions **with different denominators and mixed numbers, using the concept of equivalent fractions.**	Compare and classify geometric shapes based on their properties and sizes.	**Interpret line graphs.**
Solve number and practical problems that involve all of the above/	**Perform mental calculations with mixed operations and large numbers.**	**Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.**	**Recognise that shapes with the same areas can have different perimeters and vice versa.**	Multiply simple pairs of proper fractions, **writing the answer in its simplest form.**	**Find unknown angles in any triangles, quadrilaterals and regular polygons.**	**Construct line graphs.**
Use simple formulae	Identify common factors, common multiples and prime numbers.	**Recognise and use proportionality and ratio in contexts such as recipes.**	**Recognise when it is possible to use formulae for area and volume of shapes.**	**Divide proper fractions by whole numbers.**	**Illustrate and name parts of circles: radius, diameter and circumference.**	**Calculate and interpret the mean as an average.**
Generate and describe linear number sequences.	**Use knowledge of the order of operations to carry out calculations involving the four operations and brackets.**		**Calculate the area of parallelograms and triangles.**	**Associate a fraction with division and calculate decimal fraction equivalents.**	**Know that the diameter is twice the radius.**	
Express missing number problems algebraically.	Solve multi-step problems in contexts, deciding which operations and methods to use and why.		**Calculate, estimate and compare volume of cubes and cuboids using standard units using cm³, m³, mm³ and km³.**	**Identify the value of each digit in numbers up to 3d.p**. and ÷ numbers by 10, 100 and 1000 **giving answers up to 3d.p.**	Recognise angles: where they meet at a point, on a straight line, **or are vertically opposite and find missing angles.**	
Find pairs of numbers that satisfy an equation with two unknowns.	Solve problems using all of the operations.			**Multiply 1-digit numbers with up to 2d.p. by whole numbers.**	Describe positions on **the full coordinate grid – all 4 quadrants.**	
Enumerate possibilities of combinations with two variables.	Use estimation to check answers to calculations.			**Use written division methods in cases where the answer has up to 2d.p.**	**Draw and translate simple shapes on the coordinate grid.**	
				Recall and use equivalences between simple fractions, decimals and percentages **in different contexts.**	**Reflect shapes in the axes.**	