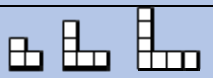
Netherbrook Primary School
Mathematics Assessment: Stage 4

	Number and Place Value		Multiplication and division
1	Count in multiples of 6, 7, 9, 25 and 1000.	14	Recall multiplication and division facts for multiplication tables up to 12 x 12.
2	Count backwards through zero to include negative numbers.	15	Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
3	Read and write numbers to at least 10,000	16	Recognise and use factor pairs and commutativity in mental calculations.
4	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) and two decimal place and partition in different ways.	17	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
5	Order and compare numbers beyond 1000 and numbers with the same number of decimal places up to 2 decimal places.	18	Solve *2 step* problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
6	Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.		
		19	Recognise and use factor pairs
7	Round any number to the nearest 10, 100 or 1000.	20	Find the effect of multiplying and dividing a one or two digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
8	Identify, represent and estimate numbers using different representations including the number line.		Double and halve any whole digit number by partitioning; and double any decimal to one decimal place.
9	Find 1000 more or less than a given number.		Divide numbers up to 3 digit by a one-digit number using the formal written method of short division and interpret remainders appropriately in context.
10	Solve number and practical problems that involve all of the above and with increasingly large positive numbers.		**Measurements**
	Addition and Subtraction	21	Convert between different units of measure [for example, kilometre to metre; hour to minute].
11	Add and subtract at least 2 numbers with up to 4 digits and decimals with up to two decimal places using the formal written methods of columnar addition and subtraction where appropriate.	22	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
	Estimate and use inverse operations to check answers to a calculation.	23	Find the area of rectilinear shapes by counting squares.
12	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why (including missing numbers).	24	Estimate, compare and calculate different measures, including money in pounds and pence.
	Recall and use addition and subtraction facts to 1000.	25	Read, write and convert time between analogue and digital 12- and 24-hour clocks.
13	Add and subtract fractions with the same denominator.	26	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

	Fractions	36	Identify acute and obtuse angles and compare and order angles up to two right angles by size.
27	Recognise and show, using diagrams, families of common equivalent fractions.	37	Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry.
28	Count up and down in hundredths and 0.01; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.		Identify and describe the properties of 2D shapes: language; length of lines; angles; and symmetry.
29	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities (including simple measure and money), including non-unit fractions where the answer is a whole number.		Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces, length of lines and acute and obtuse angles.
30	Recognise and write decimal equivalents of any number of tenths or hundredths.		**Geometry: Position and Direction**
31	Recognise and write decimal and percentage equivalents to 1/4, 1/2, ¾ and any number of tenths and hundredths.	38	Describe movements between positions as translations of a given unit to the left/right and up/down.
	Recognise, find and write fractions of objects including measures and shapes; unit fractions and non-unit fractions with small denominators.	39	Describe positions on a 2-D grid as coordinates in the first quadrant.
	Compare and order unit fractions and fractions with the same denominators.	40	Plot specified points and draw sides to compete a given polygon.
32	Round decimals with one decimal place to the nearest whole number.		**Algebra**
	Solve problems involving 25%, 50% and 75% of amounts and recognize that per cent relates to 'number of parts per hundred'.		Solve missing number problems involving: the four operations; number facts; and place value
	Statistics		Use two-step function machines using all four operations including negative numbers.
33	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.		Calculate balance puzzles with more than one variable for example: 6.5 = □ + △ or ☆ X ☆ = 400
34	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		
	Collate and interpret the mode, median and range.		
	Geometry: Properties of Shapes		Generate, describe and continue linear number sequences using the word 'term' (eg link to work on counting, multiplication tables).
35	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.		Continue and describe growing patterns 

Assessment Guidance

	Statements are N.C. statutory and assessed *Statements are N.C. non- statutory* Statements are taught only. (Dudley Progression)