Numeracy Assessment Grid - Year 5 Working Towards Standard (WTS) – Evidence of Fluency

Number and Place Value	Evidence		
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000			
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit			
Read, write, order and compare numbers with up to 3 decimal places			
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000			
Round decimals with two decimal places to the nearest whole number and to one decimal place			
Multiply/divide whole numbers and decimals by 10, 100 and 1000			
Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero			
Read Roman numerals to 1000 (M); recognise years written as such			
Solve number and practical problems that involve all of the above	N/A	N/A	N/A

Geometry: Properties of Shapes	Evidence		
Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and half a turn (total 180°) and other multiples of 90°			
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles			
Use the properties of rectangles to deduce related facts and find missing lengths and angles			
Identify 3-D shapes from 2-D representations			
Draw given angles, and measure them in degrees (°)			
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles			

Number: Addition and Subtraction	Evidence		
Add and subtract numbers mentally with increasingly large numbers			
Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction)			
Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy			
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	N/A	N/A	N/A

Number: Multiplication and Division	Evidence		
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers			
Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers			
Recognise and use square (^{2}) and cube (^{3}) numbers, and notation			
Establish whether a number up to 100 is prime and recall prime numbers up to 19			
Multiply and divide numbers mentally drawing upon known facts			
Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	N/A	N/A	N/A
Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers			
Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context			
Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	N/A	N/A	N/A
Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	N/A	N/A	N/A

Geometry: Position and Direction	Evidence		
Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed			

Number: Fractions, Decimals and Percentages	Evidence		
Recognise mixed numbers and improper fractions and convert from one form to the other			
Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$)			
Solve problems involving number up to three decimal places.	N/A	N/A	N/A
Compare and order fractions whose denominators are all multiples of the same number			
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths			
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			
Add and subtract fractions with denominators that are the same and that are multiples of the same number			
Write statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$)			
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams			
Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25	N/A	N/A	N/A
Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal			

Measurement	Evidence		
Estimate volume (e.g., using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water)			
Convert between different units of metric measure			
Measure/calculate the perimeter of composite rectilinear shapes			
Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints			
Calculate and compare the area of rectangles, use standard units square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes			
Solve problems involving converting between units of time	N/A	N/A	N/A
Use all four operations to solve problems involving measure using decimal notation, including scaling	N/A	N/A	N/A

Statistics	Evidence		
Complete, read and interpret information in tables and timetables			
Solve comparison, sum and difference problems using information presented in a line graph	N/A	N/A	N/A

When recording evidence, please use the following Key: Numeracy Book (NB), Test (T) or Arithmetic Tracking (AT). A date must accompany the annotation so that evidence can be more easily located e.g. NB 25/2. **Key:** Autumn Spring Summer Across more than one term

Numeracy Assessment Grid - Year 5 Expected Standard (EXP) – Evidence of Reasoning

Number and Place Value	Evidence			Number: Addition and Subtraction	Evidence			Number: Fractions, Decimals and Percentages	Evidence		
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000				Add and subtract numbers mentally with increasingly large numbers				Recognise mixed numbers and improper fractions and convert from one form to the other			
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit				Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction)				Read and write decimal numbers as fractions (e.g. 0.71 = $\frac{71}{100}$)			
								Solve problems involving number up to three decimal places.	N/A	N/A	N/A
Read, write, order and compare numbers with up to 3 decimal places				Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy				Compare and order fractions whose denominators are all multiples of the same number			
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000				Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	N/A	N/A	N/A	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths			
Round decimals with two decimal places to the nearest whole number and to one decimal place				**Number: Multiplication and Division**	*Evidence*			Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			
								Add and subtract fractions with denominators that are the same and that are multiples of the same number			
Multiply/divide whole numbers and decimals by 10, 100 and 1000				Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers				Write statements > 1 as a mixed number (e.g. $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$)			
Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero				Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers				Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams			
Read Roman numerals to 1000 (M); recognise years written as such				Recognise and use square (^{2}) and cube (^{3}) numbers, and notation				Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25	N/A	N/A	N/A
Solve number and practical problems that involve all of the above	N/A	N/A	N/A	Establish whether a number up to 100 is prime and recall prime numbers up to 19							
Geometry: Properties of Shapes	*Evidence*			Multiply and divide numbers mentally drawing upon known facts				Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal			
Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and half a turn (total 180°) and other multiples of 90°				Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	N/A	N/A	N/A	**Measurement**	*Evidence*		
								Estimate volume (e.g., using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water)			
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles				Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers				Convert between different units of metric measure			
								Measure/calculate the perimeter of composite rectilinear shapes			
Use the properties of rectangles to deduce related facts and find missing lengths and angles				Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context				Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints			
Identify 3-D shapes from 2-D representations				Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	N/A	N/A	N/A	Calculate and compare the area of rectangle, use standard units square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes			
Draw given angles, and measure them in degrees (°)				Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	N/A	N/A	N/A	Solve problems involving converting between units of time	N/A	N/A	N/A
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles				**Geometry: Position and Direction**	*Evidence*			Use all four operations to solve problems involving measure using decimal notation, including scaling	N/A	N/A	N/A
				Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed				**Statistics**	*Evidence*		
								Complete, read and interpret information in tables and timetables	N/A	N/A	N/A
								Solve comparison, sum and difference problems using information presented in a line graph	N/A	N/A	N/A

When recording evidence, please use the following Key: Numeracy Book (NB), Test (T) or Arithmetic Tracking (AT). A date must accompany the annotation so that evidence can be more easily located e.g. NB 25/2. **Key:** Autumn Spring Summer Across more than one term

Numeracy Assessment Grid - Year 5 Greater Depth Standard (GDS) – Evidence of Problem Solving

Number and Place Value	Evidence		
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000			
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit			
Read, write, order and compare numbers with up to 3 decimal places			
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000			
Round decimals with two decimal places to the nearest whole number and to one decimal place			
Multiply/divide whole numbers and decimals by 10, 100 and 1000			
Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero			
Read Roman numerals to 1000 (M); recognise years written as such			
Solve number and practical problems that involve all of the above			
Geometry: Properties of Shapes	*Evidence*		
Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and half a turn (total 180°) and other multiples of 90°			
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles			
Use the properties of rectangles to deduce related facts and find missing lengths and angles			
Identify 3-D shapes from 2-D representations			
Draw given angles, and measure them in degrees (°)			
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles			

Number: Addition and Subtraction	Evidence		
Add and subtract numbers mentally with increasingly large numbers			
Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction)			
Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy			
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why			
Number: Multiplication and Division	*Evidence*		
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers			
Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers			
Recognise and use square (^{2}) and cube (^{3}) numbers, and notation			
Establish whether a number up to 100 is prime and recall prime numbers up to 19			
Multiply and divide numbers mentally drawing upon known facts			
Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers			
Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context			
Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign			
Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates			
Geometry: Position and Direction	*Evidence*		
Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed			

Number: Fractions, Decimals and Percentages	Evidence		
Recognise mixed numbers and improper fractions and convert from one form to the other			
Read and write decimal numbers as fractions (e.g. 0.71 = $\frac{71}{100}$)			
Solve problems involving number up to three decimal places			
Compare and order fractions whose denominators are all multiples of the same number			
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths			
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents			
Add and subtract fractions with denominators that are the same and that are multiples of the same number			
Write statements > 1 as a mixed number (e.g. $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$)			
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams			
Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25			
Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal			
Measurement	*Evidence*		
Estimate volume (e.g., using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water)			
Convert between different units of metric measure			
Measure/calculate the perimeter of composite rectilinear shapes			
Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints			
Calculate and compare the area of rectangle, use standard units square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes			
Solve problems involving converting between units of time			
Use all four operations to solve problems involving measure using decimal notation, including scaling			
Statistics	*Evidence*		
Complete, read and interpret information in tables and timetables			
Solve comparison, sum and difference problems using information presented in a line graph			

When recording evidence, please use the following Key: Numeracy Book (NB), Test (T) or Arithmetic Tracking (AT). A date must accompany the annotation so that evidence can be more easily located e.g. NB 25/2. **Key:** Autumn Spring Summer Across more than one term