



Numeracy Assessment Grid - Year 6 Working Towards Standard (WTS) – Evidence of Fluency

Number and Place Value	Evidence			Number: Addition and Subtraction	Evidence			Algebra	Evidence		
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit				Perform mental calculations including with mixed operations and large numbers				Use simple formulae			
Identify the value of each digit to three decimal places				Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	N/A	N/A	N/A	Generate and describe linear number sequences			
Round any whole number to a required degree of accuracy				Use knowledge of the order of operations to carry out calculations				Express missing number problems algebraically			
Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places				Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	N/A	N/A	N/A	Find pairs of numbers that satisfy an equation with two unknowns			
Use negative numbers in context, and calculate intervals across zero				Solve problems involving all four operations	N/A	N/A	N/A	Enumerate possibilities of combinations of two variables			
Solve number and practical problems that involve all of the above	N/A	N/A	N/A	Ratio and Proportion	Evidence			Identify common factors, common multiples and prime numbers			
Number: Fractions, Decimals and Percentages	Evidence			Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts	N/A	N/A	N/A	Number: Multiplication and Division	Evidence		
Compare and order fractions, including fractions >				Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	N/A	N/A	N/A	Perform mental calculations, including with mixed operations and large numbers			
Use common factors to simplify fractions; use common multiples to express fractions in the same denomination				Solve problems involving similar shapes where the scale factor is known or can be found	N/A	N/A	N/A	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication			
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts				Geometry: Properties of Shapes	Evidence			Multiply one-digit numbers with up to two decimal places by whole numbers			
Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$)				Compare/classify geometric shapes based on the properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.				Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context			
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions				Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius				Use written division methods in cases where the answer has up to two decimal places			
Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)				Draw 2-D shapes using given dimensions and angles				Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy			
Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)				Recognise, describe and build simple 3-D shapes, including making nets				Use knowledge of the order of operations to carry out calculations			
Solve problems which require answers to be rounded to specified degrees of accuracy	N/A	N/A	N/A	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles				Solve problems involving all four operations	N/A	N/A	N/A
Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison	N/A	N/A	N/A	Statistics	Evidence			Measurement	Evidence		
				Interpret and construct pie charts and line graphs and use these to solve problems				Calculate the area of parallelograms and triangles			
				Calculate and interpret the mean as an average				Convert between miles and kilometres			
				Geometry: Position and Direction	Evidence			Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3dp where appropriate	N/A	N/A	N/A
				Draw and translate simple shapes on the coordinate plane, and reflect them in the axes				Convert between standard units of length, mass, volume and time using decimal notation to three decimal places			
				Describe positions on the full coordinate grid (all four quadrants)				Use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places			
								Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other units (e.g. mm ³ and km ³)			
								Recognise that shapes with the same areas can have different perimeters and vice versa			
								Recognise when it is possible to use formulae for area and volume of shapes			

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 6 Expected Standard (EXP) – Evidence of Reasoning

Number and Place Value	Evidence			Number: Addition and Subtraction	Evidence			Algebra	Evidence					
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit				Perform mental calculations including with mixed operations and large numbers				Use simple formulae						
Identify the value of each digit to three decimal places				Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	N/A	N/A	N/A	Generate and describe linear number sequences						
Round any whole number to a required degree of accuracy				Use knowledge of the order of operations to carry out calculations				Express missing number problems algebraically						
Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places				Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	N/A	N/A	N/A	Find pairs of numbers that satisfy an equation with two unknowns						
Use negative numbers in context, and calculate intervals across zero				Solve problems involving all four operations	N/A	N/A	N/A	Enumerate possibilities of combinations of two variables						
Solve number and practical problems that involve all of the above	N/A	N/A	N/A	Ratio and Proportion			Evidence			Perform mental calculations, including with mixed operations and large numbers				
Number: Fractions, Decimals and Percentages				Evidence			Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts	N/A	N/A	N/A	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication			
Compare and order fractions, including fractions >				Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	N/A	N/A	N/A	Multiply one-digit numbers with up to two decimal places by whole numbers						
Use common factors to simplify fractions; use common multiples to express fractions in the same denominator				Solve problems involving similar shapes where the scale factor is known or can be found	N/A	N/A	N/A	Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context						
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts				Geometry: Properties of Shapes			Evidence			Use written division methods in cases where the answer has up to two decimal places				
Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$)				Compare/classify geometric shapes based on the properties and sizes				Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy						
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions				Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius				Use knowledge of the order of operations to carry out calculations						
Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)				Draw 2-D shapes using given dimensions and angles				Solve problems involving all four operations	N/A	N/A	N/A			
Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)				Recognise, describe and build simple 3-D shapes, including making nets				Measurement			Evidence			
Solve problems which require answers to be rounded to specified degrees of accuracy	N/A	N/A	N/A	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles				Calculate the area of parallelograms and triangles						
Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison	N/A	N/A	N/A	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes				Convert between miles and kilometres						
				Statistics			Evidence			Convert between standard units of length, mass, volume and time using decimal notation to three decimal places	N/A	N/A	N/A	
				Interpret and construct pie charts and line graphs and use these to solve problems				Use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places						
				Calculate and interpret the mean as an average				Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other units (e.g. mm ³ and km ³)						
				Geometry: Position and Direction			Evidence			Recognise that shapes with the same areas can have different perimeters and vice versa				
				Describe positions on the full coordinate grid (all four quadrants)				Recognise when it is possible to use formulae for area and volume of shapes						

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Numeracy Assessment Grid - Year 6 Greater Depth Standard (GDS) – Evidence of Problem Solving

Number and Place Value	Evidence	Number: Addition and Subtraction	Evidence	Algebra	Evidence
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit		Perform mental calculations including with mixed operations and large numbers		Use simple formulae	
Identify the value of each digit to three decimal places		Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy		Generate and describe linear number sequences	
Round any whole number to a required degree of accuracy		Use knowledge of the order of operations to carry out calculations		Express missing number problems algebraically	
Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places		Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why		Find pairs of numbers that satisfy an equation with two unknowns	
Use negative numbers in context, and calculate intervals across zero		Solve problems involving all four operations		Enumerate possibilities of combinations of two variables	
Solve number and practical problems that involve all of the above					
Number: Fractions, Decimals and Percentages	Evidence	Ratio and Proportion	Evidence	Number: Multiplication and Division	Evidence
Compare and order fractions, including fractions >		Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts		Identify common factors, common multiples and prime numbers	
Use common factors to simplify fractions; use common multiples to express fractions in the same denominator		Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples		Perform mental calculations, including with mixed operations and large numbers	
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts		Solve problems involving similar shapes where the scale factor is known or can be found		Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	
Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$)				Multiply one-digit numbers with up to two decimal places by whole numbers	
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions		Geometry: Properties of Shapes	Evidence	Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context	
Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$)		Compare/classify geometric shapes based on the properties and sizes		Use written division methods in cases where the answer has up to two decimal places	
Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)		Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius		Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	
Solve problems which require answers to be rounded to specified degrees of accuracy		Draw 2-D shapes using given dimensions and angles		Use knowledge of the order of operations to carry out calculations	
Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison		Recognise, describe and build simple 3-D shapes, including making nets		Solve problems involving all four operations	
		Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles			
				Measurement	Evidence
		Statistics	Evidence	Calculate the area of parallelograms and triangles	
		Interpret and construct pie charts and line graphs and use these to solve problems		Convert between miles and kilometres	
		Calculate and interpret the mean as an average		Convert between standard units of length, mass, volume and time using decimal notation to three decimal places	
		Geometry: Position and Direction	Evidence	Use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places	
		Draw and translate simple shapes on the coordinate plane, and reflect them in the axes		Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other units (e.g. mm ³ and km ³)	
		Describe positions on the full coordinate grid (all four quadrants)		Recognise that shapes with the same areas can have different perimeters and vice versa	
				Recognise when it is possible to use formulae for area and volume of shapes	

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