



Mathematics Assessment – Year 3 – Autumn Term

Working Towards	On Track	Greater Depth
Find 10 more and less than any given number mentally.	Find 10 or 100 more or less than a given number mentally.	Justify their method when adding and subtracting multiples of 10 and 100 (e.g. 20 or 400).
Know how to partition 2-digit and 3-digit numbers.	Recognise the place value of each digit in a 3 digit number (including with zero value).	Explain why the value of a digit changes when it moves columns.
Order numbers up to 1000.	Compare and order numbers up to 1000 (e.g. using number lines and <>).	Compare and contrast a set of 3-digit numbers, reasoning about similarities and differences.
Read numbers up to 1000 in numerals and words.	Read and write and spell numbers up to 1000 in numerals and in words.	Justify why their approach to solving place value and number facts problems was efficient.
Accurately estimate larger sets of objects.	Identify, represent and estimate numbers using different representations (e.g. grouping, tallying etc.)	
Count up in 4s, 10s, 50s, 100s from 0.	Count from 0 in multiples of 4, 8, 50 and 100 (up and back).	Reason using knowledge of 4s, 8s, 50s and 100s (e.g. explain why 38 is not a multiple of 4). Explain how some tables can help you with others (e.g. 2s and 4s, 3s and 6s)
Add and subtract mentally 3-digit numbers and ones.	Add and subtract numbers mentally, including; 3-digit number and ones 3-digit number and tens 3- digit numbers and hundreds.	Experiment with mental methods to suit different contexts and use formal methods of addition and subtraction.
Add and subtract 2-digit numbers in a range of real life contexts and role play.		Explain why the formal method is more efficient than the partitioning method.
Use partitioning to support addition and subtraction.		Explain the links within a family of calculations across all 4 operations.
Recognise when an answer is sensible or not (e.g. $354+9=4321$).	Add and subtract numbers with up to 3-digits, using formal written methods of columnar addition and subtraction.	Explain how they approach problems with multiple solutions in an efficient and logical manner (e.g. Find two numbers whose total is 325.)
Use inverse to check answers.	Estimate the answer to a calculation and use inverse operations to check answers.	
Recall and use multiplication facts for the 3 and 4 multiplication tables.	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Explain links between other multiples based on 2s, 3s, 4s and 8s (e.g. 40s, 6s, 16s).
Know that multiplication is commutative and division is not.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Generalise about commutativity to help solve problems involving unfamiliar multiplication and division facts (e.g. $40 \times 3 = 4 \times 10 \times 3 = 4 \times 3 \times 10$).
Solve problems involving multiplication and division.	Write and calculate mathematical statements for multiplication and division including for two-digit numbers times one-digit numbers.	
Recognise patterns in numbers based on multiples	Solve problems, including missing number problems, involving multiplication and division.	

Number	Calculation	Fractions	Measures	Geometry	Statistics	<p>Once an objective has been covered it becomes Bold</p> <p>It is assumed child has achieved this objective at 'on track' unless they are indicated at either WT or GD</p>
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Mathematics Assessment – Year 3 – Spring Term

Working Towards	On Track	Greater Depth
Recall and use multiplication facts for the 3 and 4 multiplication tables.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Explain links between other multiples based on 2s, 3s, 4s and 8s (e.g. 40s, 6s, 16s).
	Write and calculate mathematical statements for multiplication and division including for two-digit numbers times one-digit numbers.	
Solve problems involving multiplication and division.	Solve problems, including missing number problems, involving multiplication and division.	Generalise about commutativity to help solve problems involving unfamiliar multiplication and division facts (e.g. $40 \times 3 = 4 \times 10 \times 3 = 4 \times 3 \times 10$).
Recognise patterns in numbers based on multiples	Solve positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	Prove a hypothesis using scaling as evidence.
Know that a tenth arises from dividing an object into 10 equal parts and write this as $\frac{1}{10}$.	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10	Create problems involving tenths. Reason about the position of non-unit fractions on a number line.
Know the role of the numerator and denominators (with denominator being the divisor).	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators	
Count up and down in taught fractions including tenths, including beyond 1.	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	
Measure and compare using appropriate standard metric units to the nearest appropriate unit.	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Compare using mixed units of measure (e.g. 1kg and 200g).
Know that perimeter means to 'measure around the outside'.	Measure the perimeter of simple 2-D shapes.	Measure the perimeter of shapes involving mixed units (e.g. cm and mm).
Add and subtract using pence in practical contexts.	Add and subtract amounts of money to give change, using both £ and p in practical contexts.	Explain how the formal method is more efficient than converting between units of money.
Know there are 100p in £1.		
Know the difference between a bar chart and a block graph.	Interpret and present data using bar charts, pictograms and tables.	Justify choices in presenting data.
Building on Y2, solve one-step questions using information presented in scaled bar charts and pictograms.	Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.	Prove or disprove given conjecture using information presented in scaled bar charts, pictograms or tables [for example, 'I think that July and August are the hottest months in all parts of the world because.....']

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Mathematics Assessment – Year 3 – Summer Term

Working Towards	Met	Greater Depth
Know that fractions other than $\frac{1}{2}$ have equivalent forms.	Recognise and show, using diagrams, equivalent fractions with small denominators	Generalise using numerators and denominators and equivalence across taught fractions.
Add and subtract using $\frac{1}{2}$ s and $\frac{1}{4}$ s.	Add and subtract fractions with the same denominator within one whole	Create contextualised problems involving + and - with fractions.
Place $\frac{1}{2}$ values on a number line (e.g. placing $4\frac{1}{2}$ between 4 & 5)	Compare and order unit fractions, and fractions with the same denominators	Generalise using numerators and denominators and equivalence across taught fractions.
Compare and order $\frac{1}{3}$ s, $\frac{1}{4}$ s and $\frac{1}{2}$ s.	Solve problems that involve fractions and decimals	
Describe the properties of common 2-D and 3-D shapes using accurate language, including angles and symmetry.	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.	Explain the differences between 2 shapes using the language of angles. Explain why different 3D shapes can cast the same shadow.
Recognise angles as a description of a turn.	Recognise angles as a property of shape or a description of a turn.	
Identify right angles around them in the real world.	Identify right angles and recognise that two right angles make a half-turn; three make three quarters of a turn and four a complete turn.	Solve and create maze puzzles involving multiples of quarter turns.
Compare whether angles are greater than or less than a right angle.	Identify whether angles are greater than or less than a right angle.	Distinguish between angles that are greater than or less than a right angle within complex patterns.
Know what horizontal and vertical mean and can identify parallel lines in shapes.	Identify horizontal and vertical lines (in shapes). Identify pairs of perpendicular and parallel lines in shapes.	Create shapes and patterns with a given number of vertical or horizontal sides. Explain why a pair of lines are parallel or perpendicular.
Measure and compare using appropriate standard metric units to the nearest appropriate unit.	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Compare using mixed units of measure (e.g. 1kg and 200g).
Know the difference between a bar chart and a block graph.	Interpret and present data using bar charts, pictograms and tables.	Justify choices in presenting data.
Building on Y2, solve one-step questions using information presented in scaled bar charts and pictograms.	Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.	Prove or disprove given conjecture using information presented in scaled bar charts, pictograms or tables [for example, 'I think that July and August are the hottest months in all parts of the world because.....']
Solve problems involving multiplication and division	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	Generalise about commutativity to help solve problems involving unfamiliar multiplication and division facts (e.g. $40 \times 3 = 4 \times 10 \times 3 = 4 \times 3 \times 10$).

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