

End of Year 1 Mathematics Objectives

Essential Objective	Key Indicators	Working at the expected standard	Working at greater depth within the expected standard
To know and use numbers	Counting <ul style="list-style-type: none"> Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to 100 in numerals; count in multiples of 2, 5 and 10. Given a number, identify one more and one less. Count in steps of 2, 3, 5 and 10 from 0 or 1 and in tens from any number, forwards and backward 	<ul style="list-style-type: none"> With reminders and support: - Up to 10 objects can be counted - Numbers to 10 can be read and written - Numbers 1–10 can be placed in ascending order - The first, second, etc. in a line can be pointed at - There is counting in twos What number comes next or before, with numbers 0–10, is identified, with reminders where necessary. With help or structure, there is counting forwards to and across 100, beginning with 0 or 1. With concrete objects, there is counting forwards from 0, in steps of 2, 5 and 10. 	<ul style="list-style-type: none"> With prompts, there is counting to and across 100, forwards and backwards from any given number. When reminders are provided, there is counting in steps of 2, 3, 5 and 10 from 0 or 1 and in tens from any number, forwards or backwards. Generally, numbers between 0 and 100 are ordered correctly. One more and one less than a given number are identified
	Representing <ul style="list-style-type: none"> Identify, represent and estimate numbers using different representations, including the number line. Read and write numbers initially from 1 to 20 and then to at least 100 in numerals and in words. 	<ul style="list-style-type: none"> Work is represented with objects or pictures and with the support of a teacher and the use of the number line. Numbers from 1 to 20 are read and written correctly in numerals and words 	<ul style="list-style-type: none"> Generally, numbers are identified, represented and estimated using different representations. Numbers from 1 to 100 are generally read and written correctly in numerals and words.
	Comparing <ul style="list-style-type: none"> Use the language of equal to , more than , less than (fewer), most and least . Compare and order numbers from 0 up to 100; use <, > and = signs. 	<ul style="list-style-type: none"> Numbers 1–10 can be placed in ascending order. The language how many altogether , how many hidden , how many left , more than and less than is understood. 	<ul style="list-style-type: none"> Generally, numbers between 0 and 100 are ordered correctly. The signs <, > and = are used to compare numbers from 0 up to 100. The language of equal to , more than , less than , most and least is generally used correctly.

	Place value <ul style="list-style-type: none"> Recognise the place value of each digit in a two-digit number (tens, ones). 	When guidance or prompts are given, the place value of each digit in a two-digit number is recognised.	The place value of each digit in a two-digit number is recognised. Generally, the place value of each digit in a two-digit number is recognised.
	Solving problems <ul style="list-style-type: none"> Use place value and number facts to solve problems. 	<ul style="list-style-type: none"> Mathematical activities involving sorting, counting and measuring are accessed with support. With the support of a teacher, place value and number facts are used to solve problems. 	<ul style="list-style-type: none"> When reminders are provided, place value and number facts are used to solve problems. Generally, the starting point in a problem is found.

Essential Objective	Key Indicators	Working at the expected standard	Working at greater depth within the expected standard
To add and subtract	Checking <ul style="list-style-type: none"> Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. 	<ul style="list-style-type: none"> There is an awareness of the terminology ‘addition’ and ‘subtraction’. Addition is understood as finding the total of two or more sets of objects. Subtraction is understood as ‘taking away’ objects and seeing how many are left. With support, simple addition or subtraction problems can be solved. 	<ul style="list-style-type: none"> When prompts are provided, the inverse relationship between addition and subtraction is used in calculations to check for correct answers. The subtraction facts linked to addition facts are recognised and calculated.
	Using Number facts <ul style="list-style-type: none"> Represent and use number bonds and related subtraction facts to 20. Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. 	<ul style="list-style-type: none"> When guidance is provided, number bonds and subtraction facts to 20 are represented and used. Number bonds and addition and subtraction facts to 20 are used and recalled, with reminders or prompts when needed. 	<ul style="list-style-type: none"> Addition and subtraction facts to 20 are fluently used and number bonds within 20 are represented and used. Addition and subtraction facts to 20 are recalled fluently. Addition and subtraction facts to 100 are recalled independently.
	Complexity <ul style="list-style-type: none"> Solve one-step problems with addition and subtraction, using: --- Concrete objects and pictorial representations including those involving numbers, quantities and measures --- The addition (+), subtraction (–) and equals (=) signs 	<ul style="list-style-type: none"> The symbols + and = are used to record additions. The symbols – and = are used to record subtractions. Addition and subtraction problems, involving up to 10 objects, are solved with prompts. Using concrete objects and pictorial representations (including those involving numbers, quantities and measures) onestep addition and subtraction problems are solved. With the support of a teacher, more complicated one-step problems with addition and subtraction can be answered 	<ul style="list-style-type: none"> Generally, one-step problems with addition and subtraction (including those involving numbers, quantities and measures) are solved. The addition (+), subtraction (-) and equals (=) signs are understood and generally used correctly.

	<p>Methods</p> <ul style="list-style-type: none"> Add and subtract numbers using concrete objects and pictorial representations, and mentally, including: One-digit and two-digit numbers to 20, including zero A two-digit number and ones A two-digit number and tens Two two-digit numbers Adding three one-digit numbers Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. 	<ul style="list-style-type: none"> Work is recorded with objects, pictures or diagrams. With prompts, numbers of objects to 10 are added and subtracted. One-digit and two-digit numbers to 20 and a two-digit number and ones are added and subtracted (using concrete objects, pictorial representations and mentally) when help and support is provided. 	<ul style="list-style-type: none"> Generally, two-digit and one-digit numbers can be added and subtracted independently. A two-digit number and tens, two two-digit numbers and three one-digit numbers are added and subtracted (using concrete objects, pictorial representations and mentally) when reminders are provided. Generally, there is an understanding that two numbers can be added in any order but subtraction of one number from another cannot.
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To multiply and divide	<p>Methods</p> <ul style="list-style-type: none"> Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Solve problems involving multiplication and division using mental methods. 	<ul style="list-style-type: none"> There is an awareness of the operations multiplication and division. There is an awareness of the signs \times, \div, $=$ and what they represent. With the support of a teacher and concrete objects and pictorial representations, repeated addition is used to solve multiplication problems and repeated subtraction is used to solve division problems. Simple multiplication and division problems, deriving from the 2, 5 and 10 multiplication tables, are solved, with reminders if necessary. 	<ul style="list-style-type: none"> When reminders are provided, mathematical statements for multiplication and division are calculated. Generally, repeated addition is used to solve multiplication problems and repeated subtraction is used to solve division problems. Generally, the signs \times, \div, $=$ are used correctly. Generally, an understanding that multiplication of two numbers can be done in any order and division of one number by another cannot is shown. Mental methods are developing in order to solve multiplication
	<p>Checking</p> <ul style="list-style-type: none"> Use known multiplication facts to check the accuracy of calculations. 	<ul style="list-style-type: none"> With the support of a teacher, multiplication facts are used to check the accuracy of calculations. 	<ul style="list-style-type: none"> Generally, multiplication facts are applied to check the accuracy of calculations.

	Complexity <ul style="list-style-type: none"> Solve one-step problems involving multiplication and division. 	<ul style="list-style-type: none"> With the support of a teacher, concrete objects, pictorial representations and arrays, one-step problems involving multiplication and division are solved. 	<ul style="list-style-type: none"> When reminders are provided and with the use of arrays if necessary, one-step problems involving multiplication and divisions are solved
	Using multiplication and division facts <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables. Recognise odd and even numbers. Use multiplication and division facts to solve problems. 	<ul style="list-style-type: none"> When help or structure is provided, multiplication and division facts for the 2, 5 and 10 multiplication tables are used With the support of a teacher, pictorial representations and concrete objects, odd and even numbers are recognised and multiplication and division facts are used to solve problems. 	<ul style="list-style-type: none"> Multiplication and division facts for the 2, 5 and 10 multiplication tables are recalled and used independently, with support if necessary. Generally, odd and even numbers are recognised. Generally, problems are solved independently using multiplication and division facts.

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To use fractions	Solving problems <ul style="list-style-type: none"> Write simple fractions. 	<ul style="list-style-type: none"> With support, an understanding of a $\frac{1}{2}$ and $\frac{1}{4}$ of a given quantity is shown. 	<ul style="list-style-type: none"> When reminders are provided, simple fractions are written, e.g. $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{2}$ of $6 = 3$.
	Recognising fractions <ul style="list-style-type: none"> Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of an object, shape or quantity are recognised and named when prompts are given. 	<ul style="list-style-type: none"> With the support of a teacher, a half and a quarter are named and found by strategies such as: folding shapes in two or four, halving an even number of objects or being able to say when a container is half full. There is an emerging understanding that a quarter is one of four equal parts of an object, shape or quantity. With the support of a teacher and pictorial representations or concrete objects, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity are recognised, found and named. 	<ul style="list-style-type: none"> $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity are generally recognised, named and written. A group of objects can be split into halves and quarters independently
	Equivalence <ul style="list-style-type: none"> Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. 	<ul style="list-style-type: none"> When concrete objects, pictorial representations and the support of a teacher are provided, the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ is recognised. 	<ul style="list-style-type: none"> Generally, the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ is recognised as a decimal or percentage.

Essential Objective	Key Indicators	Working at the expected standard	Working at greater depth within the expected standard
To understand the properties of shapes	<ul style="list-style-type: none"> Recognise and name common 2-D and 3-D shapes. Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. Identify 2-D shapes on the surface of 3-D shapes. Compare and sort common 2-D and 3-D shapes and everyday objects. 	<ul style="list-style-type: none"> With help, common 2-D and 3-D shapes are sorted and recognised. Simple properties of 2-D shapes are described, such as side or corner. Simple 2-D shapes on the surface of 3-D shapes are identified 	<ul style="list-style-type: none"> Common 2-D and 3-D shapes are recognised from pictures of them. Generally, properties of 2-D and 3-D shapes, such as faces, corners and edges are identified and described and the 2-D shape on the surface of a 3-D shape is identified. 2-D and 3-D shapes and everyday objects are sorted using one criteria.

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To describe position, direction and movement	<ul style="list-style-type: none"> Describe position, direction and movement, including whole, half, quarter and three-quarter turns. Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anticlockwise). 	<ul style="list-style-type: none"> Position and direction can be described with the support of a teacher. A simple pattern of objects, shapes or numbers is copied and continued with support, reminders or prompts. Generally, language such as behind , under , on top of , next t, etc. is used and responded to. Generally, directional language such as forwards , backwards , turn , etc., is used and responded to. 	<ul style="list-style-type: none"> Generally, position, direction and movement can be described. Generally, combinations of mathematical objects in patterns and sequences are ordered correctly. Sequences in regular steps are continued. The positions of objects in a row (first, second, third, etc.) can be described. Generally, the language half turns , quarter turns and whole turns is used to describe position, direction and movement. Reminders for the use of mathematical vocabulary to describe position, direction and movement are sometimes needed. Left and right are used correctly when directions are given.

Essential Objective	Key Indicators	Working at the expected standard	Working at greater depth within the expected standard
To use measures	<ul style="list-style-type: none"> Compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time. Measure and begin to record: lengths and heights, mass/weight, capacity and volume, time (hours, minutes, seconds). Sequence events in chronological order using language. Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Use standard units to estimate and measure length/height (m/cm), mass (kg/g), temperature (°C) and capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/capacity and record the results using >, < and =. Recognise and know the value of different denominations of coins and notes. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amount of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. 	<ul style="list-style-type: none"> With the support of a teacher, practical problems for a range of measures are described and solved. With help, a range of measures are measured in a variety of ways: - Lengths are compared and put into an order. - Objects that are shorter/longer than 1m, heavier/lighter than 500g, hold more/less than 1 litre can be found. With prompts or support, events can be sequenced in chronological order, using language such as first, second, last, etc. Language for the days of the week is used and language for months and years is emerging. With support, the time is read to the hour and there is an emerging understanding of the half hour. With the support of a teacher, the hands on a clock face are drawn to represent the time to the hour. With the support of a teacher and practical measuring apparatus, such as rulers, scales, thermometers and measuring vessels, the following can be measured as accurately as possible: - length/height in cm/m - mass in kg/g - temperature in °C - capacity in ml/l. With the support of a teacher, the signs <, > and = are understood and used to order lengths, mass and volume/capacity. With concrete objects and pictorial representations, the value of different denominations of coins and notes is generally recognised. The symbols £ (pounds) and p (pence) are recognised and, with the support of a teacher, used. With the support of a teacher and concrete objects, simple addition and subtraction problems involving money of the same unit are solved. With the support of a teacher and concrete objects, change can also be given. 	<ul style="list-style-type: none"> Generally, practical problems for a range of measures, including lengths and heights, mass/weight, capacity, volume and time, are compared, described and solved. Generally, a range of measures are measured and recorded. Events can be sequenced in chronological order, using language such as: first, second, last. Tools needed for measuring are chosen when prompted. Language relating to dates, including days of the week, weeks, months and years, is generally used correctly. The number of minutes in an hour and the number of hours in a day is known and generally used to solve problems. Generally, time to the hour, half past the hour and quarter past/to the hour is told and the hands on a clock face to show these times are drawn. With prompts, intervals of time can be compared and sequenced independently. With reminders, time to five minutes can be told and the hands on a clock face drawn to show these times. Generally, by using measuring apparatus, such as rulers, scales, thermometers and measuring vessels, the following can be measure to the nearest appropriate unit: - length/height in cm/m - mass in kg/g - temperature in °C, capacity in ml/l Generally, the signs <, > and = are used to compare and order lengths, mass and volume/capacity. The value of different denominations of coins and notes is recognised. Generally, the symbols £ (pounds) and p (pence) are recognised and used and combined to make particular values. It is understood that there are 100p in £1. Generally, combinations of coins that equal the same amounts of money are found. Simple addition and subtraction problems involving money of the same unit and giving change are solved independently – concrete objects may be needed for this.

Essential Objective	Key Indicators	Working at the expected standard	Working at greater depth within the expected standard
To use statistics	<ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data. 	<ul style="list-style-type: none"> Simple pictograms, tally charts, block diagrams and tables are constructed with support. Sorting takes place, using one or two simple criteria, such as boy/girl. Objects can be sorted into a given largescale Venn or Carroll diagram with support. Objects and pictures are used to create simple block diagrams and pictograms with support. When help is provided, simple questions are answered and asked by counting the number of objects in each category and sorting the categories by quantity. There is talk about totalling and 'which set has the most' and how work has been represented when reminders are given. 	<ul style="list-style-type: none"> When reminders are provided, simple pictograms, tally charts, block diagrams and simple tables are constructed. Generally, questions about totalling and comparing categorical data are answered correctly. Data can be collected and sorted to test a simple question. Vocabulary such as sort , group , set , table , most common and least popular is understood. Generally, questions about results that have been gathered can be answered.

Essential Objective	Key Indicators	Working at the expected standard	Working at greater depth within the expected standard
To use algebra	<ul style="list-style-type: none"> Solve addition and subtraction problems involving missing numbers. 	<ul style="list-style-type: none"> With the support of a teacher, addition and subtraction problems involving missing numbers are solved 	<ul style="list-style-type: none"> When reminders are given, addition and subtraction problems, involving missing numbers, are solved.