Mathematics Curriculum - Year 2

Autumn 1

- Read and write numbers to at least 100 in numerals and in words.
- Recognise the place value of each digit in a two-digit number (tens, ones).
- Identify, represent and estimate numbers using different representations, including the number line.
- Compare and order numbers from 0 up to 100; use <, > and = signs.
- *Round numbers to at least 100 to the nearest 10.*
- Use place value and number facts to solve problems.
- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.
- *Find 1 or 10 more or less than a given number.*
- *Partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13).*
- Identify, represent and estimate numbers using different representations, including the number line.
- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit using rulers, and measure mass (kg/g) to the nearest appropriate unit using scales.
- Compare and order lengths and mass, record the results using >, < and =.
- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.
- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers.
- Solve problems with addition and subtraction:
  - using concrete objects and pictorial representations, including those involving numbers, quantities and measures.
  - applying their increasing knowledge of mental and written methods.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- *Understand subtraction as take away and difference (how many more, how many less/fewer).*
- Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.
- Identify 2-D shapes on the surface of 3-D shapes, (for example, a circle on a cylinder and a triangle on a pyramid).
- Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.
- Compare and sort common 2-D and 3-D shapes and everyday objects.

Autumn 2

- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.
- *Understand multiplication as repeated addition.*
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- Calculate mathematical statements for multiplication *(using repeated addition)* within the multiplication tables and write them using the multiplication (×),and equals (=) signs.
- *Compare and sort numbers according to their properties.*
- 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.
- *Understand subtraction as take away and difference (how many more, how many less/fewer).*
- *Understand and use the terms numerator and denominator.*
- *Understand that a fraction can describe part of a set.*
- *Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.*
- 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.
- *Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.*
- Choose and use appropriate standard units to estimate and measure capacity and volume (litres/ml) to the nearest appropriate unit using measuring vessels.
- Compare and order volume/capacity and record the results using >, < and =.
- 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 amounts of money.
- Add and subtract money of the same unit, including giving change.
- Solve simple problems in a practical context involving addition and subtraction of money.
- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.
- Know the number of minutes in an hour and the number of hours in a day.
- Compare and sequence intervals of time.

Spring 1

- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.
- Read and write numbers to at least 100 in numerals.
- Recognise the place value of each digit in a two-digit number (tens, ones).
- Identify, represent and estimate numbers using different representations, including the number line.
- Compare and order numbers from 0 up to 100; use <, > and = signs.
- *Find 1 or 10 more or less than a given number.*
- *Round numbers to at least 100 to the nearest 10.*
- Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit using scales.
- Compare and order mass and record the results using >, < and =.
- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.
- Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.
- Identify 2-D shapes on the surface of 3-D shapes, (for example, a circle on a cylinder and a triangle on a pyramid).
- Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.
- Compare and sort common 2-D and 3-D shapes and everyday objects.
- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.
- 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 amounts of money.
- Add and subtract money of the same unit, including giving change.
- Solve simple problems in a practical context involving addition and subtraction of money.
- *Understand multiplication as repeated addition.*
- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- *Understand the connection between the 10 multiplication table and place value.*
- Calculate mathematical statements for multiplication *(using repeated addition)* within the multiplication tables and write them using the multiplication (×) and equals (=) signs.
- Solve problems involving multiplication, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
- *Understand division as sharing and grouping.*
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- Calculate mathematical statements for division within the multiplication tables and write them using the division (÷) and equals (=) signs.
- Solve problems involving division, using materials, arrays, *repeated subtraction and sharing*, mental methods, and multiplication and division facts, including problems in contexts.

Spring 2

- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) and mass (kg/g) to the nearest appropriate unit using rulers.
- Compare and order lengths and mass and record the results using >, < and =.
- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.
- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers.
- Solve problems with addition and subtraction:
  - using concrete objects and pictorial representations, including those involving numbers, quantities and measures.
  - applying their increasing knowledge of mental and written methods.
- Understand and use the terms numerator and denominator.
- Understand that a fraction can describe part of a set.
- Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.
- 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.
- Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.
- Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
- 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 anti-clockwise).
- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.
- Know the number of minutes in an hour and the number of hours in a day.
- Compare and sequence intervals of time.

Summer 1

- Recognise the place value of each digit in a two-digit number (tens, ones).
- Identify, represent and estimate numbers using different representations, including the number line.
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- Round numbers to at least 100 to the nearest 10.
- Use place value and number facts to solve problems.
- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.
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- Partition numbers in different ways (for example, 23 = 20 + 3 and 23 = 10 + 13).
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- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers.
- Solve problems with addition and subtraction:
  - using concrete objects and pictorial representations, including those involving numbers, quantities and measures.
  - applying their increasing knowledge of mental and written methods.
- Choose and use appropriate standard units to estimate and measure capacity and volume (litres/ml) to the nearest appropriate unit using measuring vessels. Compare and order volume/capacity and record the results using >, < and =.
- Choose and use appropriate standard units to estimate and measure temperature to the nearest degree (˚C) using thermometers.
- Understand and use the terms numerator and denominator.
- Understand that a fraction can describe part of a set.
- Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.
- 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.
- Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.
- Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
- 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 anti-clockwise).
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Summer 2

- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.
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  ones; a two-digit number and tens; two two-digit numbers.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
- Choose and use appropriate standard units to estimate and measure capacity and volume (litres/ml) to the nearest appropriate unit using measuring vessels and length/height in any direction (m/cm) to the nearest appropriate unit using rulers and mass (kg/g) to the nearest appropriate unit using scales.
- Compare and order volume/capacity/lengths/mass and record the results using >, < and =.
- Compare and sort common 2-D and 3-D shapes and everyday objects.
- Compare and sort numbers according to their properties