



YEAR 3 medium term plan 2022-2023

Previous Yr 2 non-negotiable objectives in pink

Objectives highlighted in yellow are 'Ready to Progress criteria'

Autumn 1

Number – Place Value

Recognise the place value of each digit in a two-digit number (tens, ones)

- Know that 10 tens are equivalent to 100 and 100 is 10 x bigger than 10. Identify and work out how many 10's there are in other 3 digit multiples of 10 (3NPV-1)
- recognise the place value of each digit in a three-digit number (3NPV-2)
- compare and order numbers up to 1000
- identify, represent and estimate numbers using different representations
- Reason about the location of any 3 digit number in the linear number system, including identifying the previous and next multiple of 100 and 10 (3NPV-3)
- read and write numbers up to 1000 in numerals and in words
- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.
- Divide 100 into 2, 4, 5 and 10 equal parts and read scales/number lines marked in multiples of 100's and 1000's with 2, 4, 5 and 10 equal parts (3NPV-4)

Number – Addition and Subtraction

Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems

- Calculate complements to 100 (3AS-1)
- add and subtract numbers mentally, including: HTU+U, HTU+T and HTU+H
- Estimate the answer to a calculation and use inverse operations to check answers
- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction (3AS-2)
- Understand the inverse relationship between addition and subtraction and how both relate to the part-part-whole structure. Understand the commutative property of addition and understand the related property of subtraction (3AS-3)
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

Autumn 2

Number – Addition and Subtraction

Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems

- Secure fluency in addition and subtraction facts that bridge 10, through continued practice. (3NF-1)
- add and subtract numbers mentally, including: HTU+U, HTU+T and HTU+H
- add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

- estimate the answer to a calculation and use inverse operations to check answers

Number – Multiplication and Division A

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 and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables **(3NF2)**

- Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division. **(3MD-1)**

- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know using mental methods
- solve problems, including missing number problems, involving multiplication and division facts that they know, including positive integer scaling problems
- Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). **(3NF-3)**

Spring 1

Number – Multiplication and Division B

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 and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs

- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, and division of 2-digit numbers by 1 digit, using mental methods
- Progress to formal written methods calculations as above
- solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Measurement - Length and Perimeter

- measure the perimeter of simple 2-D shapes
- measure, compare, add and subtract: lengths (m/cm/mm)
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

Spring 2

Number – Fractions A

Write simple fractions e.g. $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of two quarters and one half

- Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts **(3F-1)**

- 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

- recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators **(3F-2)**

- recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

	<p>Measurement – Mass and Capacity Choose and use appropriate standard units to estimate and measure capacity (litres/ml) to the nearest appropriate unit using measuring vessels</p> <ul style="list-style-type: none"> • measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml)
<p>Summer 1</p>	<p>Number – Fractions B Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half</p> <ul style="list-style-type: none"> • recognise and show, using diagrams, equivalent fractions with small denominators • Reason about the location of any fraction within 1 in the linear number system. (3F–3) • compare and order unit fractions, and fractions with the same denominators • Add and subtract fractions with the same denominator, within 1. (3F–4) • solve problems using all fraction knowledge <p>Measurement – Money Use symbols for pounds (£) and pence (p) Find combinations of coins to equal the same amounts of money</p> <ul style="list-style-type: none"> • add and subtract amounts of money to give change, using both £ and p in practical contexts <p>Measurement – Time 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</p> <ul style="list-style-type: none"> • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight • know the number of seconds in a minute and the number of days in each month, year and leap year • compare durations of events
<p>Summer 2</p>	<p>Geometry – Properties of Shapes Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line</p> <ul style="list-style-type: none"> • draw 2-D shapes • make 3-D shapes using modelling materials recognise 3-D shapes in different orientations and describe them • recognise angles as a property of shape or a description of a turn • identify right angles, recognise that two right angles make a halfturn, three make three quarters of a turn and four a complete turn • Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. (3G–1) • identify whether angles are greater or less than right angle • identify horizontal and vertical lines and pairs of perpendicular and parallel lines <p>Measurement – Statistics Interpret and construct simple pictograms, tally charts, block diagrams and simple tables</p> <ul style="list-style-type: none"> • interpret and present data using bar charts, pictograms and tables

	<ul style="list-style-type: none"> •solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables <p><u>Revision and Reinforcement of targeted areas</u></p>
<p><u>Continuous Objectives</u> The continuous objectives are woven into the teaching continually during the year. Children are given continual and regular opportunities to apply their knowledge to problem solving and reasoning.</p>	<ul style="list-style-type: none"> •solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction •estimate the answer to a calculation and use inverse operations to check answers •solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction •solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. •solve problems using all fraction knowledge
<p><u>Key Basic skills to be taught continuously through the year</u></p>	<p>Count from zero in multiples of 4, 8, 50 and 100 using bridging strategies as appropriate</p> <p>Recall multiplication facts and related division facts for 3, 4, 8 times tables</p> <p>Add and subtract a series of one-digit numbers</p> <p>Use knowledge of complements to 100 to find change from £1</p> <p>Use knowledge of complements to 30 to calculate time within half an hour</p> <p>Find 10 or 100 more or less than a given number</p> <p>Read and write numbers up to 1000</p> <p>Recognise the place value of each digit in a three-digit number</p> <p>Compare and order numbers up to 1000</p> <p>Partition numbers into place value columns</p> <p>Partition numbers in different ways</p> <p>Round any three-digit number to the nearest 10 and 100</p> <p>Use rounding to support estimation and calculation</p> <p>Use knowledge of place value to derive new addition and subtraction facts</p> <p>Use knowledge of inverse to derive associated addition and subtraction facts and check answers</p> <p>Double any number between 1 and 50 and find all corresponding halves</p> <p>Add and subtract mentally $HTU \pm U$, $HTU \pm T$ and $HTU \pm H$</p> <p>Multiply any three-digit number by 10 and any two-digit number by 100</p> <p>Divide any three-digit multiple of 10 by ten</p> <p>Use knowledge of inverse to derive associated multiplication and division facts</p> <p>Use known facts to derive nearby facts</p> <p>Use known facts to derive equivalent facts</p> <p>Count up and down in tenths</p> <p>Recall fraction pairs to 1</p> <p>Identify fractions greater or less than a half</p> <p>Identify equivalent fractions with small denominators</p> <p>Order fractions with the same denominator</p> <p>Tell and write the time from a 12-hour analogue clock and a clock with Roman numerals and a digital clock display</p> <p>Convert between money and measures including time</p>



Recognise right angles, straight angles, half and full turns and identify whether the turn is greater, less than or the same as a right angle